INOVIO PHARMACEUTICALS, INC.

FORM 10-K
(Annual Report)

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

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2007

OR

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

FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NO. 001-14888

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

DELAWARE (State or other jurisdiction of incorporation or organization)	**33-0969592** (I.R.S. Employer Identification No.)
11494 SORRENTO VALLEY ROAD **SAN DIEGO, CALIFORNIA** (Address of principal executive offices)	**92121-1318** (Zip Code)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: **(858) 597-6006**

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

COMMON STOCK, $0.001 PAR VALUE (Title of Class)	**AMERICAN STOCK EXCHANGE** (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 ☐ No ☒

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

Indicate by check mark whether the Company (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this

Form 10-K or any amendment to this Form 10-K. ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, 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 ☐	Accelerated filer ☒	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	Smaller reporting company ☐

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

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, 2007 was approximately $122,094,515 based on $2.80, the closing price on that date of the Registrant's Common Stock on the American Stock Exchange.

The number of shares outstanding of the Registrant's Common Stock, $0.001 par value, was 43,844,739 as of March 7, 2008.

DOCUMENTS INCORPORATED BY REFERENCE

We have incorporated by reference into Part III of this Annual Report portions of our proxy statement for the 2008 Annual Meeting of Stockholders, for which a definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after the fiscal year to which this Annual Report relates.

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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.

DISCLOSURE INCORPORATED BY REFERENCE

Part III incorporates certain information by reference from the Registrant's Definitive Proxy Statement to be filed with the Securities and Exchange Commission pursuant to Regulation 14A in connection with the Registrant's 2008 Annual Meeting of Shareholders, which is scheduled to be held on May 2, 2008. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission not later than 120 days after the conclusion of the Registrant's fiscal year ended December 31, 2007.

FORWARD-LOOKING STATEMENTS

This annual report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including statements with regards to our revenue, spending, cash flow, products, actions, intentions, plans, strategies and objectives. These statements are not based on historical facts or of current conditions. All such forward-looking statements are inherently uncertain. We have based those forward-looking statements on, among other things, projections and estimates regarding the economy in general, the biomedical industry and other factors that impact our results of operations and financial condition. Forward-looking statements include, without limitation, any statement that may predict, forecast, indicate or simply state future results, performance or achievements, and may contain the words "believe," "anticipate," "expect," "estimate," "intend," "plan," "project," "will be," "will continue," "will result," "could," "may," "might," "should" or any variations of such words with similar meanings, including the negatives of such words. Any such statements are subject to risks and uncertainties that could cause our actual results to differ materially from those which are management's current expectations or forecasts. Such information is subject to the risk that such expectations or forecasts, or the assumptions underlying such expectations or forecasts, become inaccurate and there can be no assurance that the forward-looking information in this report will in fact transpire or prove to be accurate. All subsequent written and oral forward looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this introduction.

Our forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any results, levels of activity, performance or achievements expressed or implied by any forward-looking statements. Certain of these risks, uncertainties and other factors are discussed in Item 1A—"Risk Factors" and elsewhere in this report. We operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time and we cannot predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward looking statements. Given these risks and uncertainties, investors should not place undue reliance on forward-looking statements which reflect management's view only as of the date of this report, as a prediction of actual results. We undertake no obligation to amend this report or revise publicly these forward-looking statements (other than pursuant to requirements imposed on registrants pursuant to Item 1A under Part II of Form 10-Q) to reflect subsequent events or circumstances. Readers should also carefully review the risk factors described in other documents we file with the Securities and Exchange Commission, or SEC, particularly our quarterly reports on Form 10-Q, and the cautionary statements contained in our press releases from time-to-time which may contain forward-looking information.

Investors should also be aware that while we do, from time to time, communicate with securities analysts, we do not disclose any material non-public information or other confidential commercial information to them. Accordingly, individuals should not assume that we agree with any statement or report issued by any analyst, regardless of the content of the report. Thus, to the extent that reports issued by securities analysts contain any projections, forecasts or opinions, such reports are not our responsibility.

PART I

ITEM 1. BUSINESS

Overview

Inovio Biomedical Corporation, a Delaware corporation, organized in 2001, is a San Diego-based biomedical company focused on the development of next-generation vaccines to prevent or treat cancers and chronic infectious diseases. Such vaccines, which could potentially protect millions of people from debilitation or death from diseases without adequate treatments, may represent multi-billion dollar market opportunities. Historically successful development of this new generation of vaccines—DNA vaccines—has been hindered by the lack of safe, efficient and cost effective DNA delivery methods capable of enabling their potency. However, our electroporation-based DNA delivery technology has shown potential in pre-clinical and clinical studies to play a pivotal role in facilitating delivery and enhancing the potency of preventive and therapeutic vaccines.

We are a leader in developing DNA delivery solutions based on electroporation, which uses brief, controlled electrical pulses to create temporary pores in cell membranes and enable increased cellular uptake of a useful biopharmaceutical. Once the DNA vaccine enters a cell, it can then "express" the proteins it was encoded to produce. These proteins, or antigens, are designed to be uniquely associated with a targeted cancer or infectious disease, and may then stimulate a more powerful immune response if the immune system encounters the targeted disease at a subsequent time.

Inovio's business strategy to realize value for the company and its stockholders is as follows:

First, we have leveraged our patented technologies through licensing and collaborations, such as our licensing arrangements with Merck & Co., Inc., or Merck, Wyeth Pharmaceuticals, or Wyeth and Vical Inc., or Vical, among other research-driven biopharmaceutical companies as well as government and non-government agencies. We are licensing the use of our electroporation-based DNA delivery systems for partners to use in conjunction with their proprietary DNA vaccines or DNA-based immunotherapies. These arrangements provide us with some combination of upfront payments, development fees, milestone payments, royalties and a supply agreement. These partners are pursuing development of proprietary agents or conducting research using our technology.

Second, we are pursuing proprietary vaccine development or co-development, resulting in whole or partial ownership in promising vaccines to prevent or treat cancers and chronic infectious diseases. We currently have a collaborative commercialization agreement with Tripep AB, or Tripep, to co-develop a novel DNA hepatitis C therapeutic vaccine (HCV), for which they received approvals from the Swedish Medical Products Agency (MPA) and local ethics committees to initiate a Phase I/II clinical trial, which has commenced enrollment. We also have two undisclosed programs underway in pre-clinical studies to generate a protective immune response with electroporation mediated delivery of an antigen in relevant animal models.

Inovio's technology is protected by an extensive patent portfolio covering in vivo electroporation. Our patent portfolio encompasses a range of apparatuses, methodologies, conditions, and applications including oncology, gene delivery, vascular, transdermal as well as ex vivo electroporation.

Restatement of Financial Statements

In this report, we have restated our previously issued consolidated financial statements to reflect certain accounting adjustments. The decision to restate our consolidated financial statements was made by the Audit Committee of our Board of Directors, following consultation with, and upon the recommendation of, management and Ernst & Young LLP, our independent registered public accounting firm. Our decision to restate was made in connection with a review of our Annual Report on Form 10-K for the year ended December 31, 2006 by the Securities and Exchange Commission

("SEC") pertaining to the classification of registered warrants we issued in October 2006 and August 2007. Our management determined that such registered warrants require reclassification from equity to liability in our consolidated financial statements for the year ended December 31, 2006 and the interim reporting periods in 2007. We are restating our consolidated financial statements for the impacted periods in this Annual Report on Form 10-K for the year ended December 31, 2007. The impact of the restatement on our previously issued consolidated financial statements is described more fully in "Management's Discussion and Analysis of Financial Conditions and Results of Operations" and in Note 2 to our consolidated financial statements included elsewhere in this report.

We have not amended our previously filed Annual Report on Form 10-K for the year ended December 31, 2006 or Quarterly Reports on Form 10-Q for interim reporting periods in 2007 for the restatement, and the consolidated financial statements and related financial statement information contained in those reports should no longer be relied upon. Throughout this report, all amounts presented from prior periods and prior period comparisons are labeled "As restated" and reflect the balances and amounts on a restated basis.

Our Core Technology

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. In the 1970s it was discovered that the brief application of high-intensity, pulsed electric fields can create temporary and reversible permeability, or pores, in the cell membrane. This pulse-induced permeabilization of the cellular membrane is generally referred to as electroporation. One observable effect of cell membrane electroporation is the 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 Inovio's electroporation instruments, which are designed to harness this phenomenon by delivering controlled electrical pulses into tissue to facilitate the uptake of useful biopharmaceuticals. Inovio's technology generates electric fields in target tissues to induce electroporation, which increases cellular uptake of molecules such as chemotherapeutic drugs and even 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.

Inovio has multiple systems designed to create different electroporation conditions for different applications. The current systems consist of two basic components: a pulse generator and an applicator that is inserted into selected tissue.

MedPulser® DNA Electroporation System

For DNA delivery to tumor cells we use our MedPulser® DNA Electroporation System, which uses the same type of six needle applicators and a similar electrical field strength as used for intratumoral delivery of a chemotherapeutic in our Selective Electrochemical Tumor Ablation (SECTA) therapy discussed below. Extensive preclinical testing has found that the electroporation parameters developed for SECTA are also useful in delivering plasmid-based therapeutics to tumors. This observation allowed us to quickly expand our opportunities into the direct delivery of DNA-encoding cytokines into accessible tumors using the MedPulser® DNA Electroporation System.

The pulse generator is designed for ease of use, such that minimal user input is needed to apply the therapy. Based on the size and anatomical location of the tumor to be treated, a physician selects the most appropriate electrode applicator. The applicator is then connected to the pulse generator of

the MedPulser® DNA Electroporation System. The applicator sends information for that particular applicator's size and shape to the pulse generator, which automatically selects the appropriate treatment parameters. Currently, several different electrode applicator configurations are available. The system is designed such that the installed base of the MedPulser® system allows for a wide variety of new electrode applicator configurations. In addition, the system incorporates other features to minimize the possibility of applicator reuse as well as prevent the use of competitive applicators with the MedPulser® DNA Electroporation System.

MedPulser® DNA Delivery System

DNA vaccines have tremendous potential as therapeutic agents for treating various diseases. One of the key obstacles to the successful development and commercialization of DNA vaccines has been the limitations associated with current delivery systems. Alternative approaches based on the use of viruses and lipids are complex and expensive, and have in the past created concerns regarding safety. Electroporation provides a straightforward, cost effective method for delivering DNA into cells with high efficiency and minimal complications (as compared to viral vectors) and, importantly, inducing clinically relevant levels of gene expression.

The MedPulser® DNA Delivery System (DDS) has been 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.

Elgen System

We acquired a novel DNA delivery device termed the Elgen system as part of our acquisition of Inovio AS in 2005. The Elgen system is designed for muscle delivery and consists of a computer-controlled, motorized two needle delivery device that injects DNA and delivers electroporation pulses through the same set of needles. 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.

Choice of Tissue for DNA Delivery

Muscle Delivery

Inovio's proprietary electroporation method consists of a DNA delivery system designed to introduce a plasmid vector into muscle cells, skin or tumor tissue. The plasmid is coded in a manner intended to cause a cell to produce an antigenic protein that the immune system will identify as foreign and therefore mount an immune response against existing disease or build memory against this antigen (and disease) for future reference. Skeletal muscle has been a core focus 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 also been shown to have a remarkable capacity for secretion of proteins into the blood stream and to induce both cellular and humoral immune responses after DNA delivery. Secreted proteins or antigens thereby 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. In addition, this approach is designed to provide long-term stable expression of a therapeutic protein or monoclonal antibody at a sustained level. Inovio is collaborating

in the development of three clinical programs related to DNA delivery to muscle (Merck, Tripep and the University of Southampton).

Tumor Delivery

We have a significant intellectual property position in the delivery of genes directly to tumor cells in vivo. Tumor cells can be readily transfected with genes encoding 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. We are currently engaged in two (Vical, Moffitt) Phase I/II clinical immunotherapy trials designed to deliver either IL-2 or IL-12 directly to accessible melanoma lesions.

Skin Delivery

While the Company has generated significant 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 will continue to invest research and patenting resources into developing a viable skin electroporation system for clinical evaluation in 2008.

Applications of DNA Vaccine Technology

Inovio and our partners are developing DNA Delivery technology for two broad applications:

Cancer

Cancer is a disease of uncontrolled cell growth. Although cancer has been a major focus of pharmaceutical companies for decades, cancer remains one of the leading causes of death in the United States. Traditionally, three approaches have been available for treatment of cancer: surgery, radiation therapy, and chemotherapy. When detected early and still confined to a single location, cancer may be cured by surgery or radiation therapy. However, neither surgery nor radiation therapy can cure cancer that has spread throughout the body. Although chemotherapy can sometimes effectively treat cancer that has spread throughout the body, a number of non-cancerous cells, such as bone marrow cells, are also highly susceptible to chemotherapy. As a result, these types of treatments cause significant side effects and morbidity. Finally, it is common to see cancer return after apparently successful treatment by each of these means. The limitations of current cancer treatments are clearly demonstrated by the mortality rate of this disease.

For many decades, it has been suggested that the immune system should also be able to recognize cancer cells as abnormal and to destroy these cells. However, cancer cells have developed mechanisms that allow them to escape the surveillance of the immune system. Immunotherapy, a process which uses the patient's own immune system to treat cancer, may have advantages over surgery, radiation therapy, and chemotherapy. Many cancers appear to have developed the ability to "hide" from the immune system. A treatment that can augment the immune response against tumor cells by making the cancer more "visible" to the immune system would likely represent a significant improvement in cancer therapy. Immune-enhancing proteins such as IL-2 and IL-12, being used in our partenered Phase I/II trials, have shown encouraging results. There is also a need to stimulate a stronger cellular immune

response (i.e. generating T-cells) to specifically attack cancerous cells. This requires the use of technology such as DNA vaccines. These methods are showing considerable progress as an effective and relatively non-toxic approach for the treatment of cancer.

Electroporation offers effective delivery of DNA and may help us develop novel cancer therapies. Our current clinical-stage approaches consist of directly injecting lesions with certain plasmids followed by intra-tumoral electroporation as well as directly delivering certain plasmids into the muscle followed by intramuscular electroporation. Upon uptake into cells, the plasmid directs the production of the encoded immunostimulatory proteins. The convenience and ability to repeat administration may offer advantages over current modalities of therapy. In addition, cancer therapies using non-viral DNA delivery may offer an added margin of safety compared with viral-based delivery, as no viral DNA/RNA or viral particles are contained in the formulation. Studies in animals have demonstrated the safety and potential efficacy of this approach. Subsequently, in human studies, a very low incidence of treatment-related serious adverse events has been observed.

In addition to immunotherapy approaches, numerous cancer antigens have been identified over the past few decades and better identification tools are under development by others. We will continue to evaluate opportunities to acquire or partner cancer antigens that may be useful for large market cancers such as breast, lung and prostate.

Infectious Diseases

DNA vaccines use portions of the genetic code of a pathogen to cause the host to produce proteins of the pathogen that may induce an immune response. Compared with conventional vaccines that use live, weakened, or dead pathogens to produce an immune response, this method potentially offers superior safety and ease of manufacturing, as well as convenient storage and handling characteristics. DNA vaccines have the potential to induce potent T-cell responses against target pathogens as well as trigger production of antibodies. Over the past decade, many scientific publications have documented the effectiveness of DNA vaccines in contributing to immune responses in dozens of species, including nonhuman primates and humans.

Vaccines are generally recognized as the most cost-effective approach for infectious disease healthcare. However, the technical limitations of conventional vaccine approaches have constrained the development of effective vaccines for many diseases. Development of vaccines based on conventional methods requires significant infrastructure in research and manufacturing. In addition, the safety risks associated with certain conventional vaccine approaches may offset their potential benefits. We believe our potential vaccine products may be simpler to manufacture than vaccines made using live viruses or protein subunit approaches including those involving mammalian, avian or insect cells, or egg-based, culture procedures. In addition, our DNA delivery technologies may accelerate certain aspects of vaccine product development such as nonclinical evaluation and manufacturing.

Similar to the requirements for fighting cancer, it is apparent that an effective approach for addressing chronic infections, which are also deadly and debilitating, requires the ability to generate a strong cellular immune response. This new generation of vaccines—DNA vaccines—is showing this capability. In addition to the targets already partnered we are evaluating several potential infectious disease targets in our internal development program.

Business Strategy

Our objective is to be a biomedical company focused on developing and commercializing products that address significant unmet medical needs and, as a result, improve patients' quality of life. To achieve this objective, our business strategy currently includes the following key elements.

Therapeutic Drug and DNA Delivery

We develop equipment designed to enable the use of electroporation to achieve efficient and cost-effective delivery into patients of therapeutic drugs or DNA targeting a variety of illnesses. Although there are many diseases for which improved drug or DNA delivery is important, we believe that our greatest opportunities lie in applying electroporation to DNA-based therapies (including immunotherapy) in the areas of cancer and chronic infectious diseases.

Advancing our Product Pipeline

The advancement of our product pipeline is two-fold; we have leveraged our patented technologies through licensing and collaborations, such as our licensing arrangements with Merck, Wyeth and Vical, among other research-driven biopharmaceutical companies; as well as government and non-government agencies. These partners are pursuing development of proprietary agents or conducting research using our technology through a licensing arrangement for the use of our electroporation-based DNA delivery systems. Resources used to support our partners in these efforts are funded by our partners; in addition these arrangements provide us with some combination of upfront payments, development fees, milestone payments, royalties and a supply agreement.

In addition to expanding and providing electroporation delivery expertise, we are directing resources to proprietary vaccine development or co-development, resulting in whole or partial ownership in promising vaccines. We are focusing on the development of DNA-based therapies in the areas of cancer and chronic infectious diseases. The selection of targets for our independent or co-development programs is driven by three key criteria: the complexity of the product development program, competition, and commercial opportunities. We intend to retain significant participation in the product development and commercialization of any of these DNA vaccines and therapeutics in pre-clinical and human trials that receive regulatory approval, although we may choose to secure additional partnerships to accelerate product development and commercialization. We currently have a collaborative commercialization agreement with Tripep AB to co-develop a novel DNA hepatitis C therapeutic vaccine (HCV). The Swedish MPA and local ethics committees approved this Phase I/II clinical trial and enrollment started in November 2007.

Expand Market Opportunity

We are continually evaluating and implementing opportunities to enhance our core technologies and assessing other DNA delivery technologies. We are developing future product candidates based on these technologies through pre-clinical and clinical testing to determine their safety and efficacy. We also seek to develop additional applications for our technologies by testing new approaches to disease control or prevention. These efforts could lead to further independent product development or licensing opportunities. In addition, we continually evaluate compatible technologies or products that may be of potential interest for in-licensing or acquisition.

Expand the Application of Our Technologies and Enable Product Development Through Strategic Collaborations

In advanced pre-clinical trials and early clinical trials, our technology has enabled high levels of DNA uptake and gene expression without significant acute side effects. Based on the results obtained, we believe that our technology is well positioned and as capable as competing technologies to meet the requirements for DNA vaccines and immunotherapy. Our strategy is to develop DNA vaccine and immunotherapy applications with major pharmaceutical, biotechnology and government agency partners wherever reasonable and/or possible to license our DNA delivery technology for specific genes or specific medical indications. In most partnering situations, we provide proprietary instruments and expertise to optimize the delivery of DNA for particular applications and the partner company provides

its proprietary gene, allowing us access to complementary technologies or greater resources. We believe that entering into selective collaborations as part of our product development programs can enhance the success of our product development and commercialization, diversify our product portfolio and enable us to better manage our operating costs. Our collaboration with partners allows pre-clinical research, clinical trials and mutually beneficial opportunities to expand our product pipeline, which may lead to the introduction of a new treatment and/or products in the marketplace at a rate and range which we may not be able to support on our own. Additionally, such collaborations enable us to leverage investment by our collaborators and reduce our net cash burn while retaining significant economic rights. Our goal is to enter into additional agreements to license our electroporation technology for use in the delivery for specific targets in 2008.

Products And Product Development

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. Our current independent development focus is on these areas as well. The table below summarizes progress in our independent, collaborative and out-licensed product development programs as of December 31, 2007.

		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**
DNA Delivery Immunotherapy	Malignant Melanoma	X	X	IP				Moffitt/RMR
	Metatstatic Melanoma	X	X	X*				Vical
DNA Delivery Tumor-associated antigen therapeutic vaccines	HER-2 and CEA-expressing cancers	X	X	IP				Merck
	Prostate Cancer	X	X	IP				Univ. of Southampton
	Unspecified Cancer	X						Merck
	Unspecified Cancer	X	X					Inovio
DNA Delivery Infectious disease vaccine	HCV Vaccine	X	X	IP				Tripep/Inovio
	CMV Vaccine	X	X					Vical
	Unspecified Targets	X	X					Wyeth
	Biodefense Targets	X	X					US Army
	HIV Vaccine	X	X					National Cancer Institute
	HIV Vaccine	X	X					International AIDS Vaccine Initiative
	Unspecified Targets	X	X					Inovio

X = Completed

IP = In Progress

* = Final data pending

DNA Vaccines and Immunotherapies

The technical limitations of conventional vaccine approaches have constrained the development of effective vaccines for many diseases. In addition, the safety risks associated with certain conventional vaccine approaches may offset their potential benefits. In the broader vaccine marketplace, it is important to note a changing dynamic.

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 or in immuno-compromised individuals, including the geriatric population. We believe our technologies, because of their potential safety and development time advantages, could be ideally suited for the development of this new generation of vaccines. Preclinical studies in animals have demonstrated the safety and potential efficacy of this approach.

DNA vaccines are intended to prevent a disease (prophylactic vaccines) or to treat an existing disease (therapeutic vaccines). A DNA vaccine consists of DNA plasmid molecules encoding a selected antigen or fragment of an antigen that are introduced into cells of humans or animals with the purpose of evoking an immune response to the encoded antigen. Information encoded in the vaccine DNA plasmid molecules directs the cells to produce proteins that may then trigger the immune system to mount one or both of two responses: the production of antibodies, also known as humoral immune response, and/or the activation of T-cells and "killer cells," collectively termed cell mediated immune response. These responses can neutralize or eliminate infectious agents (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 completely 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. A potentially major advantage of DNA vaccines is their 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.

We have acquired considerable expertise in the delivery and efficacy evaluation of DNA vaccines, both against infectious agents and complex diseases, such as cancer. In most cases we have chosen skeletal muscle as the target tissue for vaccine delivery as this muscle is known to facilitate robust and long-lasting immune responses. However, skin is also an attractive target for DNA vaccination and we have developed and patented technology for DNA delivery into skin cells as well.

We are building a DNA franchise around the use of our proprietary electroporation technology together with gene-based treatments. The flagship of our development efforts involves license agreements with Wyeth, Merck and Vical, in which these companies are supporting the development and registration of the therapies using our devices. To date, most of our DNA vaccine development programs have been primarily initiated by corporate partners who sustain the majority of the development expenses and have the ability to conduct the commercialization activities. Going forward, we expect to increase our internal development expenses as we initiate our own proprietary development efforts.

Cancer: DNA-Based Immunotherapies

Although cancer has been a major focus of pharmaceutical companies for decades, cancer is still the second leading cause of death in the United States. Traditionally, three approaches have been available for treatment of cancer: surgery, radiation therapy, and chemotherapy. The limitations of current cancer treatments are demonstrated by the mortality associated with this disease. In addition, these treatments cause significant side effects and morbidity.

For many decades, it has been suggested that the immune system should also be able to recognize cancer cells as abnormal and destroy these cells. However, cancer cells have developed mechanisms that allow them to escape the surveillance of the immune system. A treatment that can augment the immune response against tumor cells by making the cancer more "visible" to the immune system would likely represent a significant improvement in cancer therapy. Immune system-enhancing proteins such as IL-2 and IL-12 have shown encouraging results. However, these agents often require frequent doses that regularly result in severe side effects. Using DNA-based immunotherapies that enable the body to "naturally" express or produce IL-2 or IL-12 proteins or using DNA vaccines, it may be possible to stimulate the immune system to specifically attack cancer cells. It is possible that such methods may be used to develop an effective and relatively non-toxic approach for the treatment of cancer.

With our partners we have researched delivery enhancements that may complement certain DNA delivery technologies and may help us develop cancer therapies. The current clinical-stage approaches consist of injecting certain plasmids directly into lesions. This injection is followed by electroporation, which enables the entry and significant uptake of plasmid DNA into the tumor cells. The plasmids then direct the production of immunostimulatory proteins, which ultimately lead to cytokine production. The intent of this procedure is to induce an immune response that will eliminate the cancer.

The ease of manufacturing, convenience, and ability to repeat administration may offer advantages over the current modalities of therapy. In addition, cancer therapies using non-viral DNA delivery may offer an added margin of safety compared with viral-based delivery, as no viral DNA/RNA or viral particles are contained in the formulation.

Preclinical studies in animals have demonstrated the safety and potential efficacy of this approach. Subsequently, in human studies, a very low incidence of treatment-related adverse events have been observed. IL-2 and IL-12 electroporation enhanced non-viral cancer immunotherapies under development are discussed below.

In December 2004, we initiated a Phase I/II clinical trial sponsored by the H. Lee Moffitt Cancer Center using our MedPulser® DNA Electroporation System to deliver plasmid DNA coding for IL-12 to tumors with the aim of treating malignant melanoma. The trial is measuring the safety of our MedPulser® DNA electroporation system to deliver pDNA into tumor cells to mount an immune response. In this Phase I/II open-label study, pDNA encoding IL-12 is delivered directly to tumors in patients with malignant melanoma through electroporation. Interim results from this trial were presented in May 2007 and demonstrated that the DNA-based immunotherapy delivered by our electroporation technology was safe and tolerable, facilitated gene expression, and resulted in significant objective tumor responses in treating melanoma. Specifically, results from the study demonstrated significant and dose-dependent increases in IL-12 protein expression in the tumors of subjects administered plasmid-based IL-12 with electroporation. These data confirm gene expression in the treated subjects. In addition, initial evaluation determined that nearly 70 percent of the 78 treated tumors (two to four melanoma tumors per subject) showed an objective local clinical response to the treatment when biopsied after applying the therapy. This trial has completed enrollment of 24 patients and further results are expected to be presented in 2008.

In July 2005, we announced along with our partner Vical, the initiation of a human Phase I clinical study of an investigational method of delivering plasmid DNA coding for interleukin-2 (IL-2), a potent

immune system stimulant, for patients with recurrent metastatic melanoma. Intravenous delivery of IL-2 protein is already approved as a treatment for metastatic melanoma, but frequently causes severe systemic toxicities. The novel treatment approach being studied in this trial involves direct injection into a tumor lesion of plasmid DNA (pDNA) encoding IL-2, followed by electroporation in which the local application of electrical pulses are designed to enhance the uptake of the pDNA into tumor cells. The pDNA is designed to cause cells within the tumor to produce high levels of IL-2 protein locally and thereby stimulate the immune system to attack the tumor without the systemic toxicities associated with injected IL-2. Interim results on 19 patients from this trial were presented in June 2007 and demonstrated that intratumoral delivery of pDNA encoding IL-2 into melanoma tumors, followed by electroporation, was administered safely following sedative premedication. No serious adverse events related to the study drug or to the administration procedure were reported and the treatment was well-tolerated. The majority of related adverse events were localized to the treatment site, with the most frequent being mild injection site pain. Individual tumor responses were seen in 12 of 39 (31%) evaluated tumors after injection of different escalating doses (0.5 to 5 mg per tumor). Treated tumors (7 of 18, or 38%) showed local responses more frequently than did untreated tumors (5 of 21, or 24%). No overall clinical responses by standard RECIST (Response Evaluation Criteria in Solid Tumors) criteria were observed among the 19 subjects evaluated following one or two cycles of treatment. Two subjects (11%) showed activity in distant, untreated tumors, including one subject showing shrinkage and disappearance of lung tumors. This trial has completed enrollment of 26 patients and further results are expected to be presented in 2008.

Cancer: DNA Vaccines

The following programs are underway with the University of Southampton and Merck.

In April 2005, The University of Southampton initiated a U.K. Medicines and Healthcare products Regulatory Agency (MHRA) approved Phase I/II clinical trial undertaken in collaboration with us. The study uses 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. Interim (partial) results from this trial from the first and partially from the second dose treatment groups were presented in May 2007 and demonstrated that our DNA delivery technology significantly enhanced the potency of the gene-based vaccine. Dr. Christian H. Ottensmeier, MD, PhD, Cancer Research UK Senior Clinical Research Fellow at the University of Southampton, is the lead investigator of this trial. The interim results demonstrated safety, tolerability and significantly higher antibody responses for patients who received the vaccine with our delivery system versus those who were treated without it. We have been collaborating with Dr. Ottensmeier since 2005 on this University of Southampton clinical study, titled "A Phase I-II Trial of a DNA Vaccine with a PSMA27/pDOM Fusion Gene Given by Intramuscular Injection in HLA2+ Patients with Prostate Carcinomas with or without Electroporation." This study of patients with recurrent prostate cancer, is assessing safety, tolerability, and cellular (T-cell) and humoral (antibody) immune responses to a novel plasmid-based cancer vaccine delivered using our proprietary DNA delivery technology. In each of the two arms of this study, i.e. with and without electroporation-enhanced delivery, three patient groups are being treated using escalating dosage levels. This trial has completed enrollment of 30 patients.

In January 2008, we announced that new results pertaining to this study were published in a peer-reviewed scientific paper, " DNA vaccines: precision tools for activating effective immunity against cancer ", in the February 2008 issue of *Nature Reviews Cancer* . The paper was authored by Jason Rice, Christian H. Ottensmeier and Freda K. Stevenson of the University of Southampton (UK). Dr. Ottensmeier and Dr. Stevenson are investigators for this Phase I/II prostate cancer clinical study. In

their paper, the authors noted that "…data from the two lowest dose levels already suggest that EP (electroporation) enhances antibody and CD4+ T-cell responses against the DOM 1 sequence. Preliminary analysis of CD8+ T-cell reactivity against the prostate-specific membrane antigen…indicates significant responses in 3 out of 3 patients so far (J.R., C.H.O. and F.K.S., unpublished observations)." Their observations of achieving a significant T-cell response were complemented with the following conclusions: "…for clinical trials of vaccines against cancer, initial enthusiasm turned to frustration with an apparent failure to translate promising vaccine designs from preclinical models into human subjects. The problem lay with delivery of DNA, and might now be solved by EP (electroporation), which is a known way of increasing transfection in vitro and is now successfully applied in vivo."

Further results from this study are expected to be presented in 2008.

In this Phase I/II open-label study, plasmid DNA encoding a prostate tumor antigen is delivered directly to skeletal muscle in patients with recurrent prostate cancer. This technology uses electroporation to enable the entry and uptake of plasmid DNA into muscle cells, which has been shown in preclinical studies to induce antigen production and generation of an immune response against the tumor antigen.

In November 2005, Merck initiated a Phase I clinical trial of a DNA cancer vaccine based on our DNA gene delivery technology that uses pDNA encoding human epidermal growth factor receptor 2, or HER-2, and carcinoembryonic antigen, or CEA. As a result of Merck reaching this milestone, we received a payment of $2.0 million. The Phase I trial is evaluating the safety, tolerability and immunogenicity of the vaccine.

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 Inovio. 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.

Numerous cancer antigens have been identified over the past few decades and better identification tools are under development by others. We will continue to evaluate opportunities to acquire or partner cancer antigens that may be useful in large market cancers such as breast, lung and prostate.

Infectious Diseases: DNA Vaccines

Like cancer, chronic infectious disease pathogens have evolved certain mechanisms that escape typical immune surveillance. These mechanisms often render antibody and antibody-inducing therapies unable to control infections. Technology that induces strong cell-mediated immune responses—like DNA vaccination—is needed to develop next generation vaccines for a variety of deadly and debilitating infections.

The premise of gene-based immunization is that for a particular targeted pathogen, selected DNA sequences can be introduced into muscle where they will produce one or more antigens and thereby elicit both cellular and humoral immune responses against that pathogen. Our proprietary DNA delivery system for DNA-based immunization uses intramuscular electroporation to enhance the cellular delivery and expression of these DNA agents to produce the desired antigens. Compared to conventional vaccines, DNA vaccines delivered using electroporation may provide important advantages in accelerating the onset and enhancing the level of immunity generated, which is critical in attempting

to address threats posed by pandemics or bioterrorism. Pertinent DNA sequences can be quickly identified and isolated from potential infectious organisms, sequenced, and synthesized for vaccination of the general population or military in order to induce a protective immune response.

We believe advantages of DNA vaccines for infectious diseases delivered via electroporation include:

- robust T-cell responses not achievable with other technologies;
- the ability to make therapeutic as well as prophylactic vaccines;
- stability and manufacturing advantages; and
- intramuscular delivery with a low cost disposable device component.

In January 2006, we signed an agreement with Sweden-based Tripep to co-develop a therapeutic vaccine for hepatitis C virus (HCV) using electroporation. The vaccine will be based on Tripep's proprietary HCV antigen construct and delivered to infected individuals using our MedPulser® DNA Delivery System. Enrollment has begun for the Phase I/II clinical trial in healthy volunteers. 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. Inovio will initially receive a 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 2006, we entered into a collaboration and license agreement with Wyeth to develop DNA vaccines against multiple infectious disease targets. For further discussion about this agreement, see "Partnerships and Collaborations" below.

The selection of targets for our proprietary infectious disease program is driven by three key criteria: the complexity of the product development program, competition, and commercial opportunities.

DNA Vaccines for Biodefense

With the adoption of the Project Bioshield Act in 2004 by the U.S. government, there is an opportunity to secure development funding and for proof-of-principle DNA vaccine studies for biowarfare pathogens, and we have been successful at securing funding from the U.S. government. We believe DNA vaccines delivered with electroporation for bio-defense have the following advantages:

- establishment of a platform technology that can be readily adapted for new threats;
- ability to rapidly manufacture and scale-up vaccine candidates for newly identified pathogens;
- rapid induction of protective immune responses following vaccination; and
- long shelf life of products for stockpiling.

As resources obtained from government funding can be leveraged to enhance the development of technology in the area of cancer and chronic infectious disease, we will continue to pursue opportunities in the area of biodefense. As an example of potential applications in the area of biodefense, one of our partners (RMR, LLC) is currently employing its skin electroporation technology in the pre-clinical development of an anthrax vaccine under a Department of Defense Small Business Innovation Research Program (SBIR) grant. We currently have commercial rights to this skin electroporation system. The technology may also be useful with respect to targets such as the Lassa fever virus currently being studied by the U.S. Army in collaboration with us.

In October 2006, we announced that we were awarded an appropriation of approximately $1.1 million by the United States Department of Defense for the development of a DNA delivery electroporation technology for vaccination against infectious diseases, including potential bioterrorism agents. The United States Congress appropriated the funding in the Defense Appropriations Bill for 2007. The appropriation is a continuation of prior funding from the United States Army to us focused on the development of a more effective DNA delivery system for DNA-based vaccines. Inovio is working closely on this project with Dr. Connie Schmaljohn, a world-renowned virologist and chief of the Department of Molecular Virology at the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) at Ft. Detrick, Maryland.

Gene Therapy

Over the past ten years, classic gene therapy or treatment of inherited disorders has proven difficult. Electroporation of genes encoding therapeutic proteins has, however, demonstrated the potential to resolve these difficulties. In vivo production of proteins such as Factor IX for hemophilia or EPO for anemia represents large market opportunities. Pre-clinical studies for our partners have demonstrated multiple desirable characteristics of our approach, including:

- long term expression of the desired gene for convenient dosing;
- lack of immune responses to the plasmid vector;
- ability to achieve therapeutic levels of desired protein at a steady state; and
- more natural production of the therapeutic protein than current recombinant proteins.

The major technical hurdle for use of our technology for classic gene therapy is the induction of an unwanted immune response to the transgene product due to the highly efficient delivery and expression seen with electroporation. As this problem may take significant resources to overcome, we have decided not to focus on this market in the near term.

Animal Health/Veterinary

While we are primarily focused on the use of our technology in the development of novel human therapeutics, we retain certain rights to veterinary applications and may seek to exploit these rights in the future.

Additional Applications of our DNA Delivery Technology

In addition to using our electroporation technology for drug and vaccine delivery, it can be used for research to validate new drug targets and to deliver molecules. Such use of our technology may facilitate transition into clinical development.

We continue to pursue, on a limited basis, research and opportunities in the areas of stem cells, ex vivo applications and RNAi.

Partnerships and Collaborations

In November 2006, we entered into a collaboration and license agreement with Wyeth for a worldwide non-exclusive license to our technology for certain infectious disease targets, for which we received an upfront payment of $4.5 million. We will also receive research support, annual maintenance fees, royalties on any net product sales and, contingent upon the achievement of clinical and regulatory milestones, payments of up to $60.0 million over the term of the agreement.

In October 2006, we announced that we were awarded an appropriation of approximately $1.1 million by the United States Department of Defense for the development of a gene delivery

electroporation technology for vaccination against infectious diseases, including potential bioterrorism agents.

In October 2006, we announced that we acquired from Valentis, Inc. certain DNA delivery and expression assets, including Valentis' DNAvax® polymer delivery system and GeneSwitch® gene regulation technology.

In July 2006, we announced that we extended our license with RMR Technologies, LLC ("RMR") by exercising an existing option to license certain patented technology relating to the delivery of gene-based therapeutics into skin. This extends a long-standing relationship with the University of South Florida scientists and RMR founders Drs. Heller, Jaroszeski, and Gilbert. This relationship dates back to the co-development of our MedPulser® Electroporation Instrument for treatment of all types of solid tumors including H&N cancers. RMR is the collective effort of three scientists in collaboration with the University of South Florida and the H. Lee Moffitt Cancer Center and Research Institute. The license also included other patents involving the delivery of genes or drugs via ex vivo, intratumoral, and intramuscular electroporation. Recent pre-clinical studies suggest that, for certain indications, needle-less skin electroporation of DNA plasmids encoding selected antigens may also be effective at inducing desired immune responses. The patented technology licensed from RMR covers various skin electroporation electrode designs and methods, including a needle-less design using a flexible material. RMR has agreed to collaborate in an effort to develop research prototypes into commercial grade electrodes for skin delivery as well as other novel forms of electroporation-assisted DNA delivery. We have agreed to provide RMR with other development expertise pertinent to projects such as RMR's SBIR-funded pre-clinical study using RMR's proprietary, dermal electrodes to deliver a DNA vaccine against anthrax. In connection with the acquisition of this exclusive license, we issued 86,956 shares of our common stock at a price of $2.30 per share, worth $200,000 on the date of issuance.

We have also licensed from RMR patents that claim the intratumoral delivery method used in the ongoing clinical trial at the Moffitt Cancer Center & Research Institute, which is delivering the gene encoding IL-12 directly to melanoma lesions. RMR, Inovio, the University of South Florida and Moffitt Cancer Center have been collaborating in the development of this novel therapy for melanoma for the past two years.

In May 2006, we announced the acquisition, under a license with Sphergen SARL, of rights to several patent families relating to the use of electroporation technology. The rights Inovio licensed included two patents with broad claims regarding electroporation of nucleic acids in muscle and tumor tissue. This intellectual property acquisition enhanced the breadth of our patent portfolio directed to the use of electroporation technology to deliver therapeutic biopharmaceuticals. The license also includes grants of rights to know-how, future improvements, and provisions for exclusivity in applications to human medicine.

In January 2006, Inovio signed a collaborative agreement with Tripep to co-develop a therapeutic hepatitis C virus (HCV) DNA vaccine using electroporation. Under the terms of this agreement, Inovio has pledged certain electroporation equipment toward the Phase I/II study of the proprietary Tripep vaccine in exchange for a minimum of 33% of the licensing revenues or commercial income that might be derived from the vaccine. Under the terms of the agreement, Tripep will only commercialize the electroporation-based vaccine with Inovio equipment. This initial Phase I/II clinical study is designed to assess if the DNA vaccine is safe and tolerated when administered to HCV infected individuals with a low viral load. In addition, the capability of the vaccine to induce an immune response and the effect on viral load will be studied. Enrollment was initiated in November 2007. If Inovio decides not to continue to support the co-development, we will retain a profit share of sub-licensing fees or commercial revenues going forward.

In May 2005, we announced that Merck exercised an option for a non-exclusive license for an additional antigen to be used with Inovio's MedPulser® DNA Delivery System. This option exercise was

provided for under the 2004 license and research collaboration agreement between Merck and us, 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 licensing agreement with Merck, we are eligible for milestone and royalty payments if certain development goals and commercialization of the device are achieved by Merck.

As previously discussed, in April 2005, we announced the initiation of a U.K. Medicines and Healthcare products Regulatory Agency (MHRA) approved Phase I/II clinical trial undertaken in collaboration with the University of Southampton. Our electroporation technology is being used 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, investigates whether the DNA vaccine, developed at the University of Southampton, can stimulate patients to develop immune responses against prostate cancer and whether use of Inovio's electroporation system enhances this response.

In October 2004, we announced an agreement with Vical wherein Vical licensed our DNA delivery technology for use with HIV, cytomegalovirus (CMV) and melanoma (using pDNA IL-2) targets. This agreement was based on an option agreement established with Vical in October of 2003 for a worldwide license for the use of our proprietary in vivo electroporation delivery technology in combination with Vical's proprietary vaccines.

In May 2004, we announced a significant licensing deal 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. Merck will also reimburse us for the co-development of a proprietary electroporation system for the delivery of the Merck DNA vaccines. This development and commercialization agreement was an extension of an initial evaluation agreement established in 2003. Under the terms of the agreement, 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. The companies agreed to co-develop certain components of the electroporation system designed for administering DNA vaccines. Merck is responsible for all development costs and clinical programs.

The research carried out under the above agreements may result in new long-term license agreements with the other parties and may provide us with additional data that we believe will assist us in assessing the efficacy of using our MedPulser® DNA Electroporation System for delivery of DNA vaccines and gene therapy. The data should also further assist us in our licensing and commercialization efforts.

In addition to the above collaboration and licensing arrangements, we may develop our own DNA therapeutic product through early stage clinical trials and partner the product for late stage clinical development and marketing. We may have to negotiate license(s) for genes or other components of the product if they are not in the public domain.

Market

Our product development strategy is focused on pursuing significant product opportunities where the company's technology is truly enabling.

During 2007 we prioritized our efforts after assessing different market opportunities based on an evaluation of technology risk, market size and partner interest in DNA vaccines. Based on our management's assessment of the market opportunities, oncology applications appear to represent the best market opportunities, followed by applications for infectious diseases, gene therapy for protein deficiency diseases and biodefense DNA vaccines.

Our preference has been to partner with institutions or companies that can provide the DNA sequence or gene of interest and the clinical development capabilities. The types of partnerships can range from pure out-licensing to joint ventures. We have focused our efforts on developing and customizing the proprietary electroporation device most suited for each indication and providing the regulatory and support services necessary to make each product development activity successful.

We believe that 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 in maximizing the efficiency of DNA vaccination in meeting the unmet clinical need for therapeutic vaccines. We therefore plan to work with our corporate partners to develop electroporation for the delivery of DNA vaccines to capture what some analysts consider to be a multi-billion dollar market opportunity. DNA vaccines also represent a technology platform that is of interest to government agencies concerned with military preparedness and bioterrorism threat neutralization. We are working with the U.S. government to develop the technology for selected infectious disease targets.

Competition

Although there are many competing technologies for DNA delivery, we believe electroporation has a unique strategic position compared to such technologies for the following reasons:

- Minimal or no delivery related side effects
- Shorter timelines for vaccine development
- Enhances DNA vaccine potency
- Ease of use

Minimal or No Delivery Related Side Effects

Any company that is developing a DNA based delivery technology, 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, is a potential competitor of Inovio.

Currently there are five key DNA delivery technologies: viral, lipids, naked DNA, "gene gun" and electroporation (competing technologies are discussed in more detail below). All are promising technologies, but they each also have their unique obstacles to overcome. The key is to determine which delivery technology has the best chance to succeed. Management believes Inovio's electroporation system is strongly positioned to succeed as the dominant delivery method for DNA vaccines.

Viral vectors can be highly effective however there continue to be concerns regarding potential mutations, unwanted immune responses against the vector itself (preventing its use for readministration or booster shots) and other side effects. Viral technology has yet to show predictable, consistent safety and is very expensive. Lipids can be effective, but may also have toxicity issues and are relatively expensive. Naked DNA is relatively inexpensive and not very effective. The gene gun technology (using gold particles as carriers of DNA for skin delivery) looks promising, however, there are data suggesting that electroporation offers equal or better efficacy and may offer broader utility without requiring a carrier. Not requiring a carrier allows electroporation to have a unique advantage over competing technologies because it eliminates one additional component that may independently propagate side effects and create manufacturing and quality control challenges.

Competitive advantages of electroporation over other delivery systems are summarized on Table 1 below:

Table 1: Present comparison of DNA Delivery technologies

Carrier/Vector Type	Carrier/Vector Issues	Efficacy	Economics
Viral	Mutations Immune Response Infection Symptoms	+++++	$$$$$
Lipids	Toxicity	++	$$
Particle Gun	Manufacturability	++++	$$$
Naked DNA	No Vector	+	$
(Electroporation Enhanced)	No Vector	++++	$

Inovio scientists were the first to show that in vivo electroporation of DNA plasmid could have a dramatic effect on increasing the delivery of plasmid to muscle. More pertinently, research by Inovio and partners has indicated that levels of gene expression and immune response can be enhanced between 100 to 1000-fold. It appears that electroporation may be the one technology that can enable DNA vaccine use in the clinic with an easy to use system and significantly enhance DNA vaccine potency without vector-related side effects.

Shorter timelines for vaccine development

DNA vaccines can be rapidly developed, are cost effective and provide one of the best ways to induce cellular immune responses. The efficiency of DNA vaccines is evident in the ease of manufacture and characterization relative to the other conventional vaccine development. For example, one fermentation and purification process can be used for any number of different DNA vaccines, and the inherent challenges faced by live vaccines and subunit vaccines which require unique processes are eliminated.

The average development time of conventional protein vaccines has been over 14 years, while for live viral vaccine development has been on the average 20 years. We believe the development time of novel DNA based vaccines can be significantly reduced to approximately six years, which clearly represents a great advantage over conventional vaccines.

Enabling DNA vaccines

Commercial and academic institutions have been trying for over 15 years to develop DNA vaccines with sufficiently potent immune responses to make them commercially viable—without much success. One facet of DNA vaccine Research and Development ("R&D") has been to combine an adjuvant component to help initiate a general immune response to complement the specific immune response induced by the DNA vaccine, but adjuvants complicate manufacturing and may generate additional unwanted side effects.

In addition to being a highly efficient delivery method of plasmid to muscle cells, Inovio has shown that the mild electrical pulses of electroporation also have an adjuvant effect. This adjuvant effect seems to be related to more CpG-containing plasmid gaining access to intracellular toll-like receptors, which stimulate innate immune responses, and to slight muscle damage, which can lead to a danger signal to the immune system(1). To date, few, if any, common adjuvants seem to be required to augment immune responses observed after DNA vaccine delivery with electroporation.

(1) Babiuk, S. et al., 2004, Increased gene expression and inflammatory cell infiltration caused by electroporation are both important for improving the efficacy of DNA vaccines. J. Biotech. 110:1.

General observations to date suggest that there has to be an increase in gene expression of at least 100-fold (compared to naked DNA) in order to achieve a therapeutic benefit in large animals including man. Electroporation is currently the only method whereby one can routinely see increases in gene expression of 100 to 1000 fold, thereby making the development of a large number of vaccines and therapeutics possible. In effect, electroporation increases the trivial levels of gene expression seen with naked DNA alone to the therapeutic levels needed for the development of successful commercial products. This puts Inovio in a unique position relative to competing technologies. Competing technologies are discussed in more detail below.

Ease of use

Most conventional vaccines require more than one injection for maintenance of immunity. The electroporation process to deliver a DNA vaccine is a single-step procedure requiring just seconds and does not increase the complexity of the vaccination procedure. Conventional immunotherapy procedures require intramuscular needle insertion; we are developing delivery systems that would allow administration of the DNA and electroporation to be done with even greater convenience. For DNA vaccine development, unlike most conventional approaches, electroporation offers the ability to combine delivery with potential immune response augmentation. We believe electroporation has several notable strengths over conventional vaccine approaches, such as:

- Efficient expression with little toxicity.
- A physical method, where the experimental parameters are easily transferable, as well as adaptable, across various species of animals (providing a direct path from research and pre-clinical testing to human clinical testing).
- Ability to customize treatment parameters, depending on end product (electric pulsing details, repetitions, drug dose, etc.).
- Apart from the DNA vaccine of interest, no additional biomolecules are needed for therapy, which may simplify regulatory approval.
- Applicable to a wide range of biotherapeutics (DNA, RNA, siRNA).
- Applicable to the largest organs of the body, skin and skeletal muscle.

Competitive Technologies in the Area of DNA Delivery

Effective DNA delivery technologies are crucial for DNA vaccines. Many of the leading scientists in these fields have pointed out that the major obstacle to success has been the lack of safe, efficient, and economical methods of delivering DNA.

Of the more than 800 gene therapy and DNA vaccine clinical trials started in the U.S. to date, none have progressed to regulatory approval. We believe that existing DNA delivery alternatives have been a significant bottleneck to the successful development and commercialization of these promising next generation of vaccines. The following descriptions highlight the issues of the existing alternatives.

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 also 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 is 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 increases cost of vaccines and complicates 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 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 increases 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 also 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 also the least effective way of delivering DNA since only an extremely small fraction (approximately one out of twenty million) of the DNA molecules will be taken up by the cells. While the method may have provided some utility for 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 with Inovio's electroporation therapy and a plasmid DNA-based immunotherapy and we have initiated, together with partners, additional Phase I clinical trials using our electroporation to deliver DNA-based immunotherapies or DNA vaccines. To date we 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 immunotherapy a reality, namely the safe, efficient, and economical delivery of the DNA plasmid construct into the target cells, may be surmounted by our electroporation technology. The instrumentation we use for high-efficiency in vivo gene transfer is derived from the instrumentation we developed for intratumoral, intramuscular and transdermal drug delivery, an extension of the MedPulser® product line. We believe electroporation may become the method of choice for DNA delivery into cells in many applications.

SECTA Program

Our SECTA therapy is designed to locally treat solid tumors by selectively killing cancerous cells, thereby minimizing cosmetic or functional detriments often caused by surgical removal of predominantly healthy tissue around a tumor. Our SECTA therapy uses bleomycin sulfate delivered intratumorally by our MedPulser® electroporation system. The purpose of this therapy is to provide treated patients with quality of life benefits not considered achievable using a surgical treatment

method, with the intent of also achieving equivalent results in terms of local tumor control and survival. We initiated multiple clinical studies with the aim of demonstrating these benefits with respect to several different cancer indications.

Each cancer indication was the subject of a separate clinical development program specifically designed to address the unique and differentiating clinical and biological attributes of each cancer being evaluated. We completed enrollment of 13 patients in an FDA-approved Phase I/II clinical study of recurrent breast cancer, 92 patients in a European pre-marketing study of head and neck cancer, and 89 patients in a European pre-marketing study of patients with skin cancer.

We were enrolling patients in two Phase III clinical studies designed to evaluate the use of our SECTA therapy as a treatment for resectable recurrent and second primary squamous cell carcinomas of the head and neck ("SCCHN"). These specific studies accrued North American and European patients with tumors in the anterior and posterior areas of the oral cavity. The primary endpoint of these two Phase III trials was preservation of function status at four and eight month intervals as measured by the Performance Status Scale (PSS), which assesses the ability of a patient to eat "normal" foods, speak understandably, and eat in public. On June 5, 2007, we announced that we had stopped enrollment of these studies based on a recommendation from the trial's independent data monitoring committee ("DMC"). The DMC expressed concern about the study's efficacy and notable serious adverse events, including higher mortality rates associated with the SECTA therapy arm of the study when compared to the surgery treatment arm. In the DMC's opinion, although no single parameter was sufficient to warrant recommending a review of the trial, the totality of data for this recurrent head and neck cancer study suggested an unfavorable benefit-to-risk profile for the SECTA therapy arm relative to the surgery treatment arm. The DMC also noted that the perceived slow enrollment in the study presented a possible challenge in meeting our patient enrollment goals of each of these two trials, but further elaborated that if timely enrollment could allow the combined trials to reach an aggregate target of 400 patients, this would provide enhanced insights regarding the benefit-to-risk profile for our SECTA therapy. Without conducting further analysis, we stopped patient enrollment to allow us to conduct our own interim analysis of the unaudited and unblinded data regarding the 212 patients enrolled to date.

We are continuing to monitor patients treated in our five SECTA clinical studies and are concurrently analyzing the resulting data. Inovio management estimates the cost to complete SECTA patient monitoring, as required by regulatory and good clinical practice ("GCP") standards, and data analysis performed for the purpose of obtaining a strategic partner may total approximately $2.5 million in 2008 and approximately $1.5 million in 2009, although we expect to substantially complete this analysis by the end of 2008. The Company will not independently reinitiate the two Phase III clinical studies halted in June 2007 nor initiate other clinical studies pertaining to our SECTA therapy.

Our business plan for our SECTA therapy is now focused on generating a set of clinical data across multiple indications to further characterize the therapy's clinical benefits, safety analysis, cost savings, and profit potential necessary to make this product viable and attractive for a potential marketing and sales partner that can successfully market our product. As a result of our efforts in validating data from prior clinical studies and our continuing belief that our pending data will provide additional support for the advanced therapeutic benefits of our innovative device, we believe we will be able to continue our efforts to secure a commercialization path for our SECTA therapy, which could include: a) securing one or more industry partnerships for either select geographic regions or on a broader global scale; b) spinning out our SECTA assets into a newly formed company, funded entirely by third party investors; or c) selling our SECTA assets to interested parties. Management cannot reasonably assure our stockholders that any of these alternatives will be completed or realize material value to Inovio or our stockholders.

Medical Device Manufacturing

We are a medical device manufacturer and, as such, operate in a regulated industry. We must comply with a variety of manufacturing, product development and quality regulations in order to be able to distribute our products commercially around the world. In Europe, we must comply with the MDD. We have a Quality System certified by our 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 an Annex II Conformity Assessment procedure and achieved our CE Mark of the MedPulser® electroporation system in March 1999. We completed an Annex II Conformity Assessment procedure and achieved our CE Mark of the Elgen electroporation system in November 2006.

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. As we prepare for U.S. marketing, all development activity is performed according to formal procedures to ensure compliance with all design control regulations.

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 also outsource significant sub-assemblies, such as populated printed circuit boards, for which capital requirements or manufacturing volumes do not justify vertical integration. As we transition from late-stage development activities into higher volume manufacturing activities, internal capabilities will be modified and added, as appropriate, to meet our changing priorities.

Currently, the durable electronic generator in the MedPulser® and Elgen system is assembled from outsourced populated printed circuit boards, and then tested, packaged and inventoried at our manufacturing facility. The disposable applicators used with the MedPulser® system are assembled and sterilized in a clean room at outside contract manufacturers. Future manufacturing of applicators for clinical trials and commercial distribution is planned to be done using a combination of internal manufacturing and outside contract manufacture.

Intellectual Property

Our success and ability to compete depends upon our intellectual property. We maintain a broad-based patent portfolio (both original and in-licensed technologies) that as of December 31, 2007, includes over 62 issued U.S. patents and 181 issued foreign counterpart patents, all of which collectively include claims to methods and/or devices for clinical use in the electroporation medical arts. Specifically, patented subject matter, as well as subject matter pending in the U.S. and foreign patent offices, includes method and device claims for delivering by electroporation medically important substances to the interior of cells in various body tissues such as a patient's muscle, skin, and other organs.

The company's core technology is centered on five broad, medically relevant "indication" categories including oncology, gene therapy/delivery (including vaccination with expressible vectors), vascular administration (e.g. by catheter), transdermal administration (including delivery of substances for cancer, gene therapy, and cosmetic applications), and ex vivo administration (e.g. by electroporation of cells outside the body and introducing the created cells to the patient).

Supporting Inovio's primary business focus, our intellectual property in gene therapy and DNA delivery enjoys a broad scope of patent protection, such as found in U.S. patent numbers 5,273,525 and

in-licensed patents 6,110,161, 6,261,281, 6,610,044, 6,958,060 and 6,939,862, which include claims to methods and apparatus for implanting macromolecules (e.g. DNA and pharmaceutical compounds) into selected tissues of a patient by electroporation. U.S. patent number 6,763,264, with claims to methods of delivering expression vectors and molecules, and U.S. patent number 6,697,669, with claims to methods of in vivo electroporation of skin and muscle, provide broad-based coverage to the company. Other of our patents protect our proprietary methodology of electroporation wherein the electroporation process is carried out using "opposed-paired" electric field pulsing. Such patents include, and are not limited to, U.S. patent numbers 6,241,701, 6,120,493, 6,233,482, and 5,702,359C1. It is important to understand that patents having claims directed to methods of delivering substances to tissues using electroporation and devices for such methods, are generally applicable to DNA delivery and oncological applications.

With respect to oncology, U.S. patent number 6,569,149 provides broad claim coverage directed to a method for the application of electric fields to a tissue of a patient having a "cell proliferation disorder" for the purpose of introducing molecules into cells of the tissue to treat the cell proliferation disorder. Such method comprises providing an array of multiple opposed pairs of electrodes connected to a generator, wherein at least two pairs of electrodes, after being placed in selected tissue along with the substance being electroporated, are activated simultaneously with electric pulses. Likewise, in-licensed patent 6,528,315 claims methods of electroporation of DNA to tumor cells in a broad manner.

We have a number of issued U.S. and foreign patents claiming a widely used gene regulation technology called GeneSwitch® that permits control of gene expression from DNA sequences via a small molecule that can be administered orally. For example, U.S. patents 5,364,791 and 6,599,698 claim various aspects of this unique regulation system that may be used in gene therapy products. In addition to electroporation technology for gene delivery, the company also acquired a group of patents claiming the delivery of DNA using polymers (e.g., 6,040,295 and 6,514,947) and lipids (e.g., 6,387,395 and 6,235,310) that are useful in the development of certain DNA vaccines.

Our patent portfolio is also active with respect to vascular, transdermal, and ex vivo applications of electroporation technology. For example, U.S. patent 5,704,908 includes claims directed to an electroporation balloon catheter. Additionally, U.S. patent 6,342,247 is directed to methods of increasing vasodilation, an important indication in maintaining blood flow in certain patients with vessel occlusion problems. U.S. patents 6,697,669, 6,654,636, 5,810,762, and 5,439,440 provide claims to transdermal application of electric fields to surface tissues, while U.S. patents 6,027,488, 6,746,441, 6,800,484, and 6,150,148 include claims to electroporation of cells in vitro. Such electroporated cells could be used either in laboratory settings or for introduction into patient blood stream or other tissues.

Of further importance to the company, the currently issued patents provide a potential monopoly base for the claimed subject matter for the various indications to at least the year 2017 and numerous claims will be in force to between 2018 and 2020.

Corporate History and Headquarters

We were incorporated on June 29, 1983, under the laws of California as Biotechnologies & Experimental Research, Inc. On December 10, 1991, we changed our corporate name to BTX, Inc. and again on February 8, 1994 changed it to Genetronics, Inc. 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 ("TSE") as Genetronics Biomedical Ltd, under the laws of British Columbia, Canada, which wholly-owned Genetronics, Inc. On June 15, 2001, we completed a change in our jurisdiction of incorporation from British Columbia, Canada, to the state of Delaware. This change was accomplished through a continuation of Genetronics

Biomedical Ltd. into Genetronics Biomedical Corporation, a Delaware corporation. On January 17, 2003, we voluntarily de-listed from the TSE, where our common stock had been listed since September 2, 1997. On March 31, 2005, we changed our corporate name from "Genetronics Biomedical Corporation" to "Inovio Biomedical Corporation." We carry out our business through our United States wholly-owned subsidiary, Genetronics, Inc., and our Norwegian wholly-owned subsidiary, Inovio AS; we also have a wholly-owned subsidiary located in the Republic of Singapore, Inovio Asia Pte. Ltd., which may be a platform for future R&D efforts.

Our principal executive offices are located at 11494 Sorrento Valley Road, San Diego, California 92121-1318, and our telephone number is (858) 597-6006. Our common stock is traded on the American Stock Exchange ("AMEX") under the symbol "INO." Trading began on the AMEX on December 8, 1998. Effective April 4, 2005, our AMEX ticker symbol changed from "GEB" to "INO."

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 learn more about us by reviewing such filings on our website or at the SEC's website at *www.sec.gov* .

Employees

As of March 7, 2008, we employed 37 people on a full-time basis and 6 people under consulting and project employment agreements. Of the combined total, 28 were in product research, which includes research and development, quality assurance, clinical, engineering, and manufacturing, and 15 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. We consider our employee relations to be good.

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.

WE WILL HAVE A NEED FOR SIGNIFICANT FUNDS IN THE FUTURE AND THERE IS NO GUARANTEE THAT WE WILL BE ABLE TO OBTAIN THE FUNDS WE NEED.

Developing new medical devices and conducting clinical trials is expensive. Our product development efforts may not lead to commercial products, either because our product candidates fail to be found safe or effective in clinical trials or because we lack the necessary financial or other resources or relationships to pursue our programs through commercialization. Our capital and future revenue may not be sufficient to support the expenses of our operations, the development of a commercial infrastructure and the conduct of our clinical trials and pre-clinical research, although based upon our current budgeting and cash flow models, we believe that we can support our operations during the next 12 months.

Our plans for continuing current and future clinical trials, conducting research, furthering development and, eventually, marketing our human-use equipment will involve substantial costs. The extent of such costs will depend on many factors, including some of the following:

- The progress and breadth of pre-clinical testing and the size or complexity of our clinical trials and drug delivery programs, all of which directly influence cost;
- Higher than expected costs involved in complying with the regulatory process to get our human-use products approved, including the number, size, and timing of necessary clinical trials and costs associated with the current assembly and review of existing clinical and pre-clinical information;
- Higher than expected costs involved in patenting our technologies and defending them and pursuing our overall intellectual property strategy;
- Changes in our existing research and development relationships and our ability to efficiently negotiate and enter into new agreements;
- Changes in or terminations of our existing collaboration and licensing arrangements;
- Faster or slower than expected rate of progress and changes in the scope and the cost of our research and development and clinical trial activities;
- An increase or decrease in the amount and timing of milestone payments we receive from collaborators;
- Higher than expected costs of preparing an application for FDA approval of our product development programs;
- Higher than expected costs of developing the processes and systems to support FDA approval of our product development programs;
- An increase in our timetable and costs for the development of marketing operations and other activities related to the commercialization of our product development programs;
- Higher than expected costs to further develop and scale up our manufacturing capability of our human-use equipment; and

- Competition for our products and our ability, and that of our partners, to commercialize our products.

We plan to fund operations by several means. We will attempt to enter into contracts with partners that will fund either general operating expenses or specific programs or projects. Some funding also may be received through government grants. However, we may not be able to enter into any such contracts or may not receive such grants or, if we do, our partners and the grants may not provide enough funding to meet our needs.

In the past, we have raised funds through the public and private sale of our stock, and we are likely to do this in the future. Sale of our stock to new investors results in dilution of the ownership interests of our existing stockholders. The greater the number of shares sold, the greater the dilution. A high degree of dilution can make it difficult for the price of our stock to increase, among other things. Dilution also weakens existing stockholders' voting power.

We cannot assure you that we will be able to raise additional capital to fund operations, or that we will be able to raise additional capital under terms that are favorable to us.

IF WE DO NOT HAVE ENOUGH CAPITAL TO FUND OPERATIONS, THEN WE WILL HAVE TO CUT COSTS.

If we are unable to raise additional funds under terms acceptable to us and in the interests of our stockholders, then we will have to take measures to cut costs, such as:

- Delay, scale back or discontinue one or more of our gene delivery programs or other aspects of operations, including laying off personnel or stopping or delaying clinical trials;
- Sell or license some of our technologies that we would not otherwise sell or license if we were in a stronger financial position;
- Sell or license some of our technologies under terms that are less favorable than they otherwise might have been if we were in a stronger financial position; and
- Consider merging with another company or positioning ourselves to be acquired by another company.

If it became necessary to take one or more of the above-listed actions, then we may receive a lower valuation, which could impact our stock price. Further, the effects on our operations, financial performance and stock price may be significant if we do not or cannot take one or more of the above-listed actions in a timely manner when needed.

THE MARKET FOR OUR STOCK IS VOLATILE, WHICH COULD ADVERSELY AFFECT AN INVESTMENT IN OUR STOCK.

Our share price and trading volume are highly volatile. This is not unusual for biomedical companies of our size, age, and with a discrete market niche. It also is common for the trading volume and price of biotechnology stocks to be unrelated to a company's operations, i.e. increase or decrease on positive or no news. Our stock has exhibited this type of behavior in the past, and will likely exhibit it in the future. The historically low trading volume of our stock, in relation to many other biomedical companies of our size, makes it more likely that a severe fluctuation in volume, either up or down, will affect the stock price.

Some factors that we would expect to depress the price of our stock include:

- Adverse clinical trial results;
- Our inability to obtain additional capital;

- Announcement that the FDA denied our request to approve our human-use product for commercialization in the United States, or similar denial by other regulatory bodies which make independent decisions outside the United States;

- Announcement of legal actions brought by or filed against us for patent or other matters, especially if we receive negative rulings or outcomes in such actions;

- Announcement of an investigation of or an action against us by the SEC, American Stock Exchange, or other state or federal regulatory authorities related to corporate governance or securities issues, including any prolonged comment letter response process, especially if such circumstances result in negative outcomes such as a significant restatement of our prior financial results;

- Cancellation of corporate partnerships or other material agreements;

- Public concern as to the safety or efficacy of our human-use products including public perceptions regarding gene therapy in general;

- Potential negative market reaction to the terms or volume of any issuances of shares of our stock to new investors or service providers;

- Stockholders' decisions, for whatever reasons, to sell large amounts of our stock;

- Adverse research and development results;

- Declining working capital to fund operations, or other signs of apparent financial uncertainty;

- Significant advances made by competitors that adversely affect our potential market position; and

- The loss of key personnel and the inability to attract and retain additional highly-skilled personnel.

These factors, as well as the other factors described in this report, could significantly affect the price of our stock.

SALES OF SUBSTANTIAL AMOUNTS OF OUR SHARES, OR EVEN THE AVAILABILITY OF OUR SHARES FOR SALE, IN THE OPEN MARKET COULD CAUSE THE MARKET PRICE OF OUR SHARES TO DECLINE.

Under our registration statement that the SEC declared effective on May 25, 2006, we have registered an aggregate of $75.0 million of our equity securities that we may issue from time to time, in one or more offerings at prices and on terms that we will determine at the time of each offering. Under that registration statement, we have registered multiple kinds of our equity securities, including our common stock, preferred stock, warrants and a combination of these securities, or units. Through December 31, 2007, we have "taken-down" from our shelf registration statement, and issued and sold, an aggregate of 9,035,378 shares of our common stock valued at $26.9 million and warrants to purchase up to 1,575,919 shares of our common stock valued at $3.9 million and, if those warrants are fully exercised, we will have issued an additional 1,575,919 shares of our common stock under that shelf registration statement. In other words, the shares of common stock we have sold in offerings from our shelf registration statement as of the date of this report represent approximately 36% of the value of the aggregate equity securities from our shelf registration statement (41% if the warrants we have sold from our shelf registration statement are fully exercised). While that amount is only approximately 24% of our outstanding shares of common stock as of December 31, 2007, future issuances and sales of our common stock or securities exercisable for or convertible into our common stock pursuant to our existing shelf registration statement, if in substantial numbers, and even the availability for issuance of

the securities registered under our shelf registration statement, could adversely affect the market price of our shares.

In addition to the shares and warrants we have issued from our shelf registration statement, during 2007 we have also issued 2,201,644 shares of our common stock and warrants to purchase up to 938,475 shares of our common stock in other recent offerings, as well as other restricted shares pursuant to consulting arrangements and other registered securities pursuant to our stock incentive plan. Further, effective February 15, 2008, the SEC revised Rule 144, which provides a safe harbor for the resale of restricted securities, shortening applicable holding periods and easing other restrictions and requirements for resales by our non-affiliates, thereby enabling an increased number of our outstanding restricted securities to be resold sooner in the public market. Sales of substantial amounts of our stock at any one time or from time to time by the investors to whom we have issued them, or even the availability of these shares for sale, could cause the market price of our common stock to decline.

WE HAVE A HISTORY OF LOSSES, WE EXPECT TO CONTINUE TO INCUR LOSSES AND WE MAY NOT ACHIEVE OR MAINTAIN PROFITABILITY.

As of December 31, 2007, we had an accumulated deficit of $139.8 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 clinical, research and development efforts. If these activities are successful and if we receive approval from the FDA to market equipment, then even more funding will be required to market and sell the equipment. The outcome of these matters cannot be predicted at this time. We are evaluating potential partnerships as an additional way to fund operations, but there is no assurance we will be able to secure partnerships that will provide the required funding, if at all. We will continue to rely on outside sources of financing to meet our capital needs beyond next year, however such funds may not always be readily available when needed.

Further, there can be no assurance, assuming we successfully raise additional funds, that we will achieve positive cash flow. If we are not able to secure additional funding, we will be required to further scale back our research and development programs, preclinical studies and clinical trials, general, and administrative activities and may not be able to continue in business. Including the cash proceeds received from financings, various licensing payments, the exercise of employee stock options and investor warrants, we believe we have sufficient funds to fund operations into the fourth quarter of 2010.

OUR DEPENDENCE UPON NON-MARKETED PRODUCTS, OUR LACK OF EXPERIENCE IN MANUFACTURING AND MARKETING HUMAN-USE PRODUCTS, AND OUR CONTINUING DEFICIT MAY RESULT IN EVEN FURTHER FLUCTUATIONS IN OUR TRADING VOLUME AND SHARE PRICE.

Successful approval, marketing, and sales of our human-use equipment are critical to the financial future of our company. Our human-use products are not yet approved for sale in the United States and other jurisdictions and we may never obtain these approvals. Even if we do obtain approvals to sell our human-use products in the United States, these sales may not be as large or as timely as we expect. These uncertainties may cause our operating results to fluctuate dramatically in the next several years. We believe that quarter-to-quarter or annual comparisons of our operating results are not a good indicator of our future performance. Nevertheless, these fluctuations may cause us to perform below the expectations of public market analysts and investors. If this happens, the price of our common shares would likely decline.

OUR ABILITY TO UTILIZE OUR NET OPERATING LOSSES AND CERTAIN OTHER TAX ATTRIBUTES MAY BE LIMITED.

As of December 31, 2007, we had net operating losses (NOLs) of approximately $55.9 million for federal income tax purposes and approximately $50.8 million for state income tax purposes. We also had federal research tax credit carryforwards of approximately $714,000 as of December 31, 2007. Utilization of the NOLs and tax credit carryforwards may 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 may limit the amount of NOL and tax credit carryforwards and other deferred tax 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 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. Any limitation on our net operating loss carryforwards that could be used to offset post-ownership change in taxable income would adversely affect our liquidity and cash flow, as and when we become profitable.

IF WE ARE UNABLE TO DEVELOP COMMERCIALLY SUCCESSFUL PRODUCTS IN VARIOUS MARKETS FOR MULTIPLE INDICATIONS, OUR BUSINESS WILL BE HARMED AND WE MAY BE FORCED TO CURTAIL OR CEASE OPERATIONS.

We cannot assure you that we will successfully develop any products, or if we do, that they will be commercially successful. If we fail to develop or successfully commercialize any products, we may be forced to refocus, curtail or cease operations. Our ability to achieve and sustain operating profitability depends on our ability, directly or with strategic partners, to successfully commercialize our therapy in Europe, Asia and in the US. This will depend in large part on our ability to commence, execute and complete clinical programs and obtain regulatory approvals for our therapy. Clinical trials are still necessary before we can seek regulatory approval to sell our products. We cannot assure you that we will receive approval for our therapy in the United States or in other countries or, if approved, that we or a partner will achieve a significant level of sales. If we fail to partner or commercialize our products, we may be forced to curtail or cease operations.

We are also in the pre-clinical stages of research and development with other new product candidates using our electroporation technology. These new indications and product candidates will require significant costs to advance through the development stages. Even if such product candidates are advanced through clinical trials, the results of such trials may not gain FDA approval. Even if approved, our products may not be commercially successful.

PRE-CLINICAL AND CLINICAL TRIALS OF HUMAN-USE EQUIPMENT ARE UNPREDICTABLE, AND IF WE EXPERIENCE UNSUCCESSFUL TRIAL RESULTS, OUR BUSINESS WILL SUFFER.

Before any of our human-use equipment can be sold, the FDA or applicable foreign regulatory authorities must determine that the equipment meets specified criteria for use in the indications for which approval is requested, including obtaining appropriate regulatory approvals. Satisfaction of regulatory requirements typically takes many years, and involves compliance with requirements covering research and development, testing, manufacturing, quality control, labeling and promotion of drugs for human use. To obtain regulatory approvals, we must, among other requirements, complete clinical trials demonstrating that our product candidates are safe and effective for a particular cancer type or other disease. Regulatory approval of a new drug is never guaranteed. The FDA will make this determination based on the results from our pre-clinical testing and clinical trials and has substantial discretion in the

approval process. Despite the time and experience exerted, failure can occur at any stage, and we could encounter problems causing us to abandon clinical trials.

In addition, any of our clinical trials for treatment using our therapy may be delayed or halted at any time for various other reasons, including:

- The electroporation-mediated delivery of drugs or other agents may be found to be ineffective or be considered to cause harmful side effects, including death;
- Our clinical trials may take longer than anticipated for any of a number of reasons, including a scarcity of subjects that meet the physiological or pathological criteria for entry into the study and a scarcity of subjects that are willing to participate through the end of the trial, or follow-up visits;
- The reported clinical data may change over time as a result of the continuing evaluation of patients or the current assembly and review of existing clinical and pre-clinical information;
- Data from various sites participating in the clinical trials may be incomplete or unreliable, which could result in the need to repeat the trial or abandon the project; and
- Pre-clinical and clinical data can be interpreted in many different ways, and the FDA and other regulatory authorities may interpret our data differently than we do, which could halt or delay our clinical trials or prevent regulatory approval.

If any of the above events arise during our clinical trials or data review, we would expect this to have a serious negative impact on our company. Any termination of ongoing enrollment or other delay or change in the conduct of our clinical trials may not always be understood or accepted by the capital markets and announcements of such scientific results and related actions may adversely affect the market price of our common stock.

Any delays or difficulties we have encountered or will encounter in our pre-clinical research and clinical trials, may delay or preclude regulatory approval. Our product development costs will increase if we experience delays in testing or regulatory approvals or if we need to perform more extensive or larger clinical trials than planned. Any such events could also delay or preclude the commercialization of our therapy or any other product candidates.

Clinical trials are unpredictable, especially human-use trials. Results achieved in early stage clinical trials may not be repeated in later stage trials, or in trials with more patients. When early positive results were not repeated in later stage trials, pharmaceutical and biotechnology companies have suffered significant setbacks. Not only are commercialization timelines pushed back, but some companies, particularly smaller biotechnology companies with limited cash reserves, have discontinued business after releasing news of unsuccessful clinical trial results. We cannot be certain the results we observed in our pre-clinical testing will be confirmed in clinical trials or the results of any of our clinical trials will support FDA approval. If we experience unexpected, inconsistent or disappointing results in connection with a clinical or pre-clinical trial our business will suffer.

A delay in our clinical trials, for whatever reason, will probably require us to spend additional funds to keep our product(s) moving through the regulatory process. If we do not have or cannot raise additional funds, then the testing of our human-use products could be discontinued. In the event our clinical trials are not successful, we will have to determine whether to continue to fund our programs to address the deficiencies, or whether to abandon our clinical development programs for our products in tested indications. Loss of our human-use product line would be a significant setback for our company.

Because there are so many variables inherent in clinical trials, we cannot predict whether any of our future regulatory applications to conduct clinical trials will be approved by the FDA or other regulatory authorities, whether our clinical trials will commence or proceed as planned, and whether

the trials will ultimately be deemed to be successful. To date, our experience has been that submission and approval of clinical protocols has taken longer than desired or expected.

OUR BUSINESS IS HIGHLY DEPENDENT ON RECEIVING APPROVALS FROM VARIOUS REGULATORY AUTHORITIES AND WILL BE DRAMATICALLY AFFECTED IF APPROVAL TO MANUFACTURE AND SELL OUR HUMAN-USE EQUIPMENT IS NOT GRANTED OR IS NOT GRANTED IN A TIMELY MANNER.

The production and marketing of our human-use equipment and our ongoing research, development, pre-clinical testing, and clinical trial activities are subject to extensive regulation. Numerous governmental agencies in the U.S. and internationally, including the FDA, must review our applications and decide whether to grant regulatory approval. All of our human-use equipment must go through an approval process, in some instances for each indication for which we want to label it for use (such as use for transfer of a certain gene to a certain tissue). These regulatory processes are extensive and involve substantial costs and time.

We have limited experience in, and limited resources available, for such regulatory activities. Failure to comply with applicable regulations can, among other things, result in non-approval, suspensions of regulatory approvals, fines, product seizures and recalls, operating restrictions, injunctions and criminal prosecution.

Any of the following events can occur and, if any did occur, any one could have a material adverse effect on our business, financial conditions and results of operations:

- As mentioned earlier, clinical trials may not yield sufficiently conclusive results for regulatory agencies to approve the use of our products;
- There can be delays, sometimes long, in obtaining approval for our human-use devices, and indeed, we have experienced such delays in obtaining FDA approval of our clinical protocols;
- The rules and regulations governing human-use equipment such as ours can change during the review process, which can result in the need to spend time and money for further testing or review;
- If approval for commercialization is granted, it is possible the authorized use will be more limited than we believe is necessary for commercial success, or that approval may be conditioned on completion of further clinical trials or other activities; and
- Once granted, approval can be withdrawn, or limited, if previously unknown problems arise with our human-use product or data arising from its use.

WE CANNOT PREDICT THE SAFETY PROFILE OF THE USE OF OUR ELECTROPORATION SYSTEM WHEN USED IN COMBINATION WITH OTHER THERAPIES.

Our current clinical trials involve the use of our electroporation system in combination with certain DNA vaccines. While the data we have evaluated to date suggest the use of electroporation does not alone have significant adverse effects nor increase the adverse effects of other therapies, we cannot predict if this outcome will continue to be true or whether possible adverse side effects directly attributable to the vaccines provided by our partners and collaborators will compromise the safety profile of our electroporation-based DNA delivery system when used in certain combination therapies. In some instances, clinical results may not clearly indicate whether possible adverse effects are related to our technology versus other study related factors.

WE COULD BE SUBSTANTIALLY DAMAGED IF PHYSICIANS AND HOSPITALS PERFORMING CLINICAL TRIALS USING OUR EQUIPMENT DO NOT ADHERE TO PROTOCOLS DEFINED IN CLINICAL TRIAL AGREEMENTS.

We work and have worked with a number of hospitals to perform clinical trials, primarily in the field of oncology. We depend on these hospitals to recruit patients for our trials, to perform the trials according to our protocols, and to report the results in a thorough, accurate and consistent manner. Although we have agreements with these hospitals which govern what each party is to do with respect to each protocol, patient safety, and avoidance of conflict of interest, there are risks that the terms of the contracts will not be followed, such as the following:

Possible Deviations from Protocol. The hospitals or the physicians working at the hospitals may not perform the trials correctly. Deviations from our protocol may make the clinical data not useful and the trial could become essentially worthless.

Potential for Conflict of Interest. Physicians working on protocols may have an improper economic interest in our company, or other conflict of interest. When a physician has a personal stake in the success of the trial, such as when a physician owns stock, or rights to purchase stock of the trial sponsor, it can create suspicion that the trial results were improperly influenced by the physician's interest in economic gain. Not only can this put the clinical trial results at risk, but it can also cause serious damage to a company's reputation.

Patient Safety and Consent Issues. Physicians and hospitals may fail to secure formal written consent as instructed or report adverse effects that arise during the trial in the proper manner, which could put patients at unnecessary risk. Physicians and hospital staff may fail to observe proper safety measures such as the mishandling of used medical needles, which may result in the transmission of infectious and deadly diseases, such as HIV. This increases our liability, affects the data, and can damage our reputation.

If any of these events were to occur, then it could have a material adverse effect on our ability to receive regulatory authorization to sell our human-use equipment, and on our reputation. Negative events that arise in the performance of clinical trials sponsored by biotechnology companies of our size and with limited cash reserves have resulted in companies going out of business. While these risks are always present, to date, our contracted physicians and clinics have been successful in collecting significant data regarding the clinical protocols under which they have operated, and we are unaware of any conflicts of interest or improprieties regarding our protocols.

EVEN IF OUR PRODUCTS ARE APPROVED BY REGULATORY AUTHORITIES, IF WE FAIL TO COMPLY WITH ON-GOING REGULATORY REQUIREMENTS, OR IF WE EXPERIENCE UNANTICIPATED PROBLEMS WITH OUR PRODUCTS, THESE PRODUCTS COULD BE SUBJECT TO RESTRICTIONS OR WITHDRAWAL FROM THE MARKET.

Any product for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data and promotional activities for such product, will be subject to continual review and periodic inspections by the FDA and other regulatory bodies. Even if regulatory approval of a product is granted, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to certain requirements resulting in costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. Later discovery of previously unknown problems with our products, including unanticipated adverse events of unanticipated severity or frequency regarding manufacturer or manufacturing processes or failing to comply with regulatory requirements, may result in restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recall, fines, suspension of regulatory approvals, product seizures or detention, injunctions or the imposition of civil or criminal penalties.

FAILURE TO COMPLY WITH FOREIGN REGULATORY REQUIREMENTS GOVERNING HUMAN CLINICAL TRIALS AND MARKETING APPROVAL FOR OUR HUMAN-USE EQUIPMENT COULD PREVENT US FROM SELLING OUR PRODUCTS IN FOREIGN MARKETS, WHICH MAY ADVERSELY AFFECT OUR OPERATING RESULTS AND FINANCIAL CONDITIONS.

For marketing our MedPulser® Electroporation System outside the United States, the requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country and may require additional testing. The time required to obtain approvals outside the United States may differ from that required to obtain FDA approval. We may not obtain foreign regulatory approval on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA. Failure to comply with these regulatory requirements or to obtain required approvals could impair our ability to develop these markets and could have a material adverse affect on our results of operations and financial condition.

OUR ABILITY TO ACHIEVE SIGNIFICANT REVENUES FROM SALES OR LEASES OF HUMAN-USE PRODUCTS WILL DEPEND ON ESTABLISHING EFFECTIVE SALES, MARKETING AND DISTRIBUTION CAPABILITIES OR RELATIONSHIPS AND WE CURRENTLY LACK SUBSTANTIAL EXPERIENCE IN THESE AREAS.

To market our products, we will need to develop sales, marketing and distribution capabilities. In order to develop or otherwise obtain these capabilities, we may have to enter into marketing, distribution or other similar arrangements with third parties in order to sell, market and distribute our products successfully. To the extent that we enter into any such arrangements with third parties, our product revenue is likely to be lower than if we marketed and sold our products directly, and our revenues will depend upon the efforts of these third parties.

We have limited experience in sales, marketing and distribution of clinical and human-use products and we currently have no sales, marketing or distribution capability. If we decide to market and sell our human-use products directly, we must develop a marketing and sales capability. This would involve substantial costs, training and time. We may be unable to develop sufficient sales, marketing and distribution capabilities to commercialize our products successfully. Regardless of whether we elect to use third parties or seek to develop our own marketing capability, we may not be able to successfully commercialize any product.

WE RELY ON COLLABORATIVE AND LICENSING RELATIONSHIPS TO FUND A PORTION OF OUR RESEARCH AND DEVELOPMENT EXPENSES. IF WE ARE UNABLE TO MAINTAIN OR EXPAND EXISTING RELATIONSHIPS, OR INITIATE NEW RELATIONSHIPS, WE WILL HAVE TO DEFER OR CURTAIL RESEARCH AND DEVELOPMENT ACTIVITIES IN ONE OR MORE AREAS.

Our partners and collaborators fund a portion of our research and development expenses and assist us in the research and development of our human-use equipment. These collaborations and partnerships help pay the salaries and other overhead expenses related to research. In the past, we have encountered operational difficulties after the termination of an agreement by a former partner. Because this partnership was terminated, we did not receive significant milestone payments which we had expected and were forced to delay some clinical trials as well as some product development. Although we believe our relationships with our partners and collaborators are stable and good, we cannot assure you that we will not experience such operational difficulties or termination of such relationships without anticipated payment again in the future.

We also rely on scientific collaborators at companies and universities to further expand our research and to test our equipment. In most cases, we lend our equipment to a collaborator, teach him

or her how to use it, and together design experiments to test the equipment in one of the collaborator's fields of expertise. We aim to secure agreements that restrict collaborators' rights to use the equipment outside of the agreed upon research, and outline the rights each of us will have in any results or inventions arising from the work.

Nevertheless, there is always potential that:

- Our equipment will be used in ways we did not authorize, which can lead to liability and unwanted competition;
- We may determine that technology has been improperly assigned to us or a collaborator may claim rights to certain of our technology, which may require us to pay license fees or milestone payments and, if commercial sales of the underlying product are achieved, royalties;
- We may lose rights to inventions made by our collaborators in the field of our business, which can lead to expensive litigation and unwanted competition;
- Our collaborators may not keep our confidential information to themselves, which can lead to loss of our right to seek patent protection and loss of trade secrets, and expensive litigation; and
- Collaborative associations can damage a company's reputation if they fail and thus, by association or otherwise, the scientific or medical community may develop a negative view of us.

We cannot guarantee that any of the results from these collaborations will be successful. We also cannot be sure that we will be able to continue to collaborate with individuals and institutions that will further develop our products, or that we will be able to do so under terms that are not overly restrictive. If we are not able to maintain or develop new collaborative relationships, it is likely that our research pace will slow down and that it will take longer to identify and commercialize new products, or new indications for our existing products.

A SMALL NUMBER OF LICENSING PARTNERS ACCOUNT FOR A SUBSTANTIAL PORTION OF OUR REVENUE IN EACH PERIOD AND OUR RESULTS OF OPERATIONS AND FINANCIAL CONDITION COULD SUFFER IF WE LOSE THESE LICENSING PARTNERS OR FAIL TO ADD ADDITIONAL LICENSING PARTNERS IN THE FUTURE.

We derive a significant portion of our revenue from a limited number of licensing partners in each period. Accordingly, if we fail to sign additional future contracts with major licensing partners, if a licensing contract is delayed or deferred, or if an existing licensing contract expires or is cancelled and we fail to replace the contract with new business, our revenue could be adversely affected. Until commercialization of our Medpulser® Electroporation System, we expect that a limited number of licensing partners will continue to account for a substantial portion of our revenue in each quarter in the foreseeable future. During the years ended December 31, 2007 and 2006, one licensing partner, Merck, accounted for approximately 68% and 44%, respectively, of our consolidated revenue. During the year ended December 31, 2007 another licensing partner, Wyeth, accounted for 23% of our consolidated revenue.

IF WE CANNOT MAINTAIN OUR EXISTING CORPORATE AND ACADEMIC ARRANGEMENTS AND ENTER INTO NEW ARRANGEMENTS, WE MAY BE UNABLE TO DEVELOP PRODUCTS EFFECTIVELY, OR AT ALL.

Our strategy for the research, development and commercialization of our product candidates may result in us entering into contractual arrangements with corporate collaborators, academic institutions and others. We have entered into sponsored research, license and/or collaborative arrangements with several entities, including Merck, Wyeth, Vical, Valentis, the U.S. Navy, Chiron and the University of South Florida, as well as numerous other institutions that conduct clinical trials work or perform

pre-clinical research for us. Our success depends upon our collaborative partners performing their responsibilities under these arrangements and complying with the regulations and requirements governing clinical trials. We cannot control the amount and timing of resources our collaborative partners devote to our research and testing programs or product candidates, or their compliance with regulatory requirements which can vary because of factors unrelated to such programs or product candidates. These relationships may in some cases be terminated at the discretion of our collaborative partners with only limited notice to us.

Merck can terminate its May 2004 license and collaboration agreement with us at any time in its sole discretion, without cause, by giving ninety days' advance notice to us. If this agreement is terminated by Merck at any time during the first two years of the collaboration term, then Merck shall continue, for a six-month period beginning on the date of such termination, to make payments previously approved by the project's joint collaboration committee in relation to scientists and outside contractors engaged by us in connection with the agreement. During the years ended December 31, 2007 and 2006, Merck accounted for approximately 68% and 44%, respectively, of our consolidated revenue.

We may not be able to maintain our existing arrangements, enter into new arrangements or negotiate current or new arrangements on acceptable terms, if at all. Some of our collaborative partners may also be researching competing technologies independently from us to treat the diseases targeted by our collaborative programs.

WE RELY HEAVILY ON OUR PATENTS AND PROPRIETARY RIGHTS TO ATTRACT PARTNERSHIPS AND MAINTAIN MARKET POSITION.

The strength of our patent portfolio is an important factor that will influence our success. Patents give the patent holder the right to prevent others from using its patented technology. If someone infringes upon the patented material of a patent holder, the patent holder has the right to initiate legal proceedings against that person to protect its patented material. These proceedings, however, can be lengthy and costly. We perform an ongoing review of our patent portfolio to confirm that our key technologies are adequately protected. If we determine that any of our patents require either additional disclosures or revisions to existing information, we may ask that such patents be reexamined or reissued, as applicable, by the United States Patent and Trademark Office.

The patenting process, enforcement of issued patents, and defense against claims of infringement are inherently risky. Because we rely heavily on patent protection, we face the following significant risks:

Possibility of Inadequate Patent Protection for Product. The United States Patent and Trademark Office or foreign patent offices may not grant patents of meaningful scope based on the applications we have already filed and those we intend to file. If we do not have patents that adequately protect our human-use equipment and indications for its use, then we will not be competitive.

Potential That Important Patents Will Be Judged Invalid. Some of the issued patents we now own or license may be determined to be invalid. If we have to defend the validity of any of our patents, the costs of such defense could be substantial, and there is no guarantee of a successful outcome. In the event an important patent related to our drug delivery technology is found to be invalid, we may lose competitive position and may not be able to receive royalties for products covered in part or whole by that patent under license agreements.

Danger of Being Charged With Infringement. Although we are not currently aware of any parties intending to pursue infringement claims against us, there is the possibility that we may use a patented technology owned by another person and/or be charged with infringement. Defending or indemnifying a third party against a charge of infringement can involve lengthy and costly legal actions, and there can

be no guarantee of a successful outcome. Biotechnology companies comparable to us in size and financial position have discontinued business after losing infringement battles. If we or our partners were prevented from using or selling our human-use equipment, then our business would be materially adversely affected.

Freedom to Operate Issues. We are aware that patents related to electrically-assisted drug delivery have been granted to, and patent applications have been filed by our potential competitors. We or our partners have received licenses from some of these patents, and will consider receiving additional licenses in the future. Nevertheless, the competitive nature of our field of business and the fact that others have sought patent protection for technologies similar to ours make these potential issues significant.

In addition to patents, we also rely on trade secrets and proprietary know-how. We try to protect this information with appropriate confidentiality and inventions agreements with our employees, scientific advisors, consultants, and collaborators. We cannot be sure that these agreements will not be breached, that we will be able to protect ourselves if they are breached, or that our trade secrets will not otherwise become known or be independently discovered by competitors. If any of these events occur, then we face the potential of losing control over valuable company information, which could negatively affect our competitive position.

IF WE ARE NOT SUCCESSFUL IN DEVELOPING OUR CURRENT PRODUCTS, OUR BUSINESS MODEL MAY CHANGE AS OUR PRIORITIES AND OPPORTUNITIES CHANGE AND OUR BUSINESS MAY NEVER DEVELOP TO BE PROFITABLE OR SUSTAINABLE.

There are many products and programs that seem promising to us which we could pursue. However, with limited resources, we may decide to change priorities and shift programs away from those that we have been pursuing for the purpose of exploiting our core technology of electroporation. The choices we make will be dependent upon numerous contemporaneous factors, some of which we cannot predict. We cannot be sure that our business model, as it currently exists or as it may evolve, will enable us to become profitable or to sustain operations.

SERIOUS AND UNEXPECTED SIDE EFFECTS ATTRIBUTABLE TO GENE THERAPY MAY RESULT IN GOVERNMENTAL AUTHORITIES IMPOSING ADDITIONAL REGULATORY REQUIREMENTS OR A NEGATIVE PUBLIC PERCEPTION OF OUR PRODUCTS.

The gene therapy or DNA vaccine product candidates under development could be broadly described as gene therapies. A number of clinical trials are being conducted by other pharmaceutical companies involving gene therapy, including compounds similar to, or competitive with, our product candidates. The announcement of adverse results from these clinical trials, such as serious unwanted and unexpected side effects attributable to treatment, or any response by the FDA to such clinical trials, may impede the progress of our clinical trials, delay or prevent us from obtaining regulatory approval, or negatively influence public perception of our product candidates, which could harm our business and results of operations and reduce the value of our stock.

The U.S. Senate has held hearings concerning the adequacy of regulatory oversight of gene therapy clinical trials, as well as the adequacy of research subject education and protection in clinical research in general, and to determine whether additional legislation is required to protect volunteers and patients who participate in such clinical trials. The Recombinant DNA Advisory Committee, or RAC, which acts as an advisory body to the National Institutes of Health, has expanded its public role in evaluating important public and ethical issues in gene therapy clinical trials. Implementation of any additional review and reporting procedures or other additional regulatory measures could increase the costs of or prolong our product development efforts or clinical trials.

As of December 31, 2007, to our knowledge, there have not been any serious adverse events in any gene therapy clinical trials in which our technology was used. In the future, if one or a series of serious adverse events were to occur during a gene therapy clinical trial in which our technology was used, we would report all such events to the FDA and other regulatory agencies as required by law. Such serious adverse events, whether treatment-related or not, could result in negative public perception of our treatments and require additional regulatory review or other measures, which could increase the cost of or prolong our gene therapy clinical trials or require us to halt our clinical trials altogether.

The commercial success of our products will depend in part on public acceptance of the use of gene therapy products or gene-induced products, which are a new type of disease treatment for the prevention or treatment of human diseases. Public attitudes may be influenced by claims that gene therapy products or gene-induced products are unsafe, and these treatment methodologies may not gain the acceptance of the public or the medical community. Negative public reaction to gene therapy products or gene-induced products could also result in greater government regulation and stricter clinical trial oversight.

WE HAVE THE POTENTIAL FOR PRODUCT LIABILITY ISSUES WITH HUMAN-USE EQUIPMENT.

The testing, marketing and sale of human-use products expose us to significant and unpredictable risks of equipment product liability claims. These claims may arise from patients, clinical trial volunteers, consumers, physicians, hospitals, companies, institutions, researchers or others using, selling, or buying our equipment. Product liability risks are inherent in our business and will exist even after the products are approved for sale. If and when our human-use equipment is commercialized, we run the risk that use (or misuse) of the equipment will result in personal injury. The chance of such an occurrence will increase after a product type is on the market.

We have obtained liability insurance in connection with our ongoing business and products, and we may purchase additional policies if such policies are determined by management to be necessary. However, our existing insurance and the insurance we purchase may not provide adequate coverage in the event a claim is made and we may be required to pay claims directly. If we did have to make payment against a claim, it would impact our financial ability to perform the research, development, and sales activities that we have planned.

If and when our human-use equipment is commercialized, there is always the risk of product defects. Product defects can lead to loss of future sales, decrease in market acceptance, damage to our brand or reputation, product returns and warranty costs, and even product withdrawal from the market. These events can occur whether the defect resides in a component we purchased from a third party or whether it was due to our design and/or manufacturer. We expect that our sales agreements will contain provisions designed to limit our exposure to product liability claims. However, we do not know whether these limitations will be enforceable in the countries in which the sale is made. Any product liability or other claim brought against us, if successful and of sufficient magnitude, could negatively impact our financial performance.

WE CANNOT BE CERTAIN THAT WE WILL BE ABLE TO MANUFACTURE OUR HUMAN-USE EQUIPMENT IN SUFFICIENT VOLUMES AT COMMERCIALLY REASONABLE COSTS.

Our manufacturing facilities for human-use products will be subject to quality systems regulations, international quality standards and other regulatory requirements, including pre-approval inspection for our human-use equipment and periodic post-approval inspections for all human-use products. While we have undergone and passed a quality systems audit from an international body, we have never undergone a quality systems inspection by the FDA. We may not be able to pass an FDA inspection when and if it occurs. If our facilities are found not to be compliant with FDA standards in sufficient

time, prior to a launch of our product in the United States, then it will result in a delay or termination of our ability to produce our human-use equipment in our facility. Any delay in production will have a negative affect on our business. While there are no target dates set forth for launch of our products in the United States, we plan on launching each product once we successfully perform a Phase III clinical study involving a particular use of our technology, obtain the requisite regulatory approval, and engage a partner who has the financial resources and marketing capacity to bring our products to market.

Our products must be manufactured in sufficient commercial quantities, in compliance with regulatory requirements, and at an acceptable cost to be attractive to purchasers. We rely on third parties to manufacture and assemble most aspects of our equipment, and thus cannot directly control the quality, timing or quantities of equipment manufactured or assembled at any given time.

Disruption of the manufacture of our products, for whatever reason, could delay or interrupt our ability to manufacture or deliver our products to customers in a timely basis. This would be expected to affect revenue and may affect our long-term reputation, as well. In the event we provide product of inferior quality, we run the risk of product liability claims and warranty obligations, which will negatively affect our financial performance.

THERE IS A POSSIBILITY THAT OUR TECHNOLOGY WILL BECOME OBSOLETE OR LOSE ITS COMPETITIVE ADVANTAGE.

The vaccine development and delivery business is very competitive, fast moving and intense, and expected to be increasingly so in the future. Other companies and research institutions are developing drug delivery systems that, if not similar in type to our systems, are designed to address the same patient or subject population. Therefore, we cannot promise that our products will be the best, the safest, the first to market, or the most economical to manufacture and use. If competitors' products are better than ours, for whatever reason, then we could become less profitable from product sales and our products could become obsolete.

There are many reasons why a competitor might be more successful than us, including:

Financial Resources. Some competitors have greater financial resources and can afford more technical and developmental setbacks than we can.

Greater Experience. Some competitors have been in the biomedical business longer than we have. They have greater experience than us in critical areas like clinical testing, obtaining regulatory approval and sales and marketing. This experience or their name recognition may give them a competitive advantage over us.

Superior Patent Position. Some competitors may have better patent protection over their technology than we have or will have in order to protect our technology. If we cannot use our patents to prevent others from copying our technology or developing similar technology, or if we cannot obtain a critical license to another's patent that we need to manufacture and use our equipment, then we would expect our competitive position to weaken.

Faster to Market. Some companies with competitive technologies may move through stages of development, approval, and marketing faster than us. If a competitor receives FDA approval before us, then it will be authorized to sell its products before we can sell ours. Because the first company "to market" often has a significant advantage over others, a second place position could result in less than anticipated sales.

Reimbursement Allowed. In the U.S., third party payers, such as Medicare, may reimburse physicians and hospitals for competitors' products but not for our own human-use products. This would significantly affect our ability to sell our human-use products in the U.S. and would have a negative

impact on revenue and our business as a whole. Outside of the U.S., reimbursement and funding policies vary widely.

ANY ACQUISITION WE MIGHT MAKE MAY BE COSTLY AND DIFFICULT TO INTEGRATE, MAY DIVERT MANAGEMENT RESOURCES OR DILUTE STOCKHOLDER VALUE.

We have considered and made strategic acquisitions in the past, including the acquisition of Inovio AS, and in the future, may acquire or invest in complementary companies, products or technologies. As part of our business strategy, we may acquire assets or businesses principally relating to or complementary to our current operations, and we have in the past evaluated and discussed such opportunities with interested parties. Any acquisitions we undertake will be accompanied by issues commonly encountered in business acquisitions, which could adversely affect us, including:

- Potential exposure to unknown liabilities of acquired companies;
- The difficulty and expense of assimilating the operations and personnel of acquired businesses;
- Diversion of management time and attention and other resources;
- Loss of key employees and customers as a result of changes in management;
- Incurrence of amortization expenses related to intangible assets or large impairment charges such as the charges in excess of $3.3 million we incurred in our 2005 results of operations related to the write-off of in-process research and development that we acquired in our acquisition of Inovio AS;
- Increased legal, accounting and other administrative costs associated with negotiation, documentation and reporting any such acquisition; and
- Possible dilution to our stockholders.

In addition, geography and/or language barriers may make the integration of businesses more difficult. We may not be successful in overcoming these risks or any other problems encountered in connection with any of our acquisitions.

IF WE LOSE KEY PERSONNEL OR ARE UNABLE TO ATTRACT AND RETAIN ADDITIONAL, HIGHLY SKILLED PERSONNEL REQUIRED TO DEVELOP OUR PRODUCTS OR OBTAIN NEW COLLABORATIONS, OUR BUSINESS MAY SUFFER.

We depend, to a significant extent, on the efforts of our key employees, including senior management and senior scientific, clinical, regulatory and other personnel. The development of new therapeutic products requires expertise from a number of different disciplines, some of which is not widely available. We depend upon our scientific staff to discover new product candidates and to develop and conduct pre-clinical studies of those new potential products. Our clinical and regulatory staff is responsible for the design and execution of clinical trials in accordance with FDA requirements and for the advancement of our product candidates toward FDA approval. Our manufacturing staff is responsible for designing and conducting our manufacturing processes in accordance with the FDA's Quality System Regulations. The quality and reputation of our scientific, clinical, regulatory and manufacturing staff, especially the senior staff, and their success in performing their responsibilities, are significant factors in attracting potential funding sources and collaborators. In addition, our Chief Executive Officer and Chief Financial Officer and other executive officers are involved in a broad range of critical activities, including providing strategic and operational guidance. The loss of these individuals, or our inability to retain or recruit other key management and scientific, clinical, regulatory, manufacturing and other personnel, may delay or prevent us from achieving our business objectives. We face intense competition for personnel from other companies, universities, public and private research institutions, government entities and other organizations.

WE MAY NOT MEET ENVIRONMENTAL GUIDELINES AND AS A RESULT COULD BE SUBJECT TO CIVIL AND CRIMINAL PENALTIES.

Like all companies in our industry, we are subject to a variety of governmental regulations relating to the use, storage, discharge and disposal of hazardous substances. Our safety procedures for handling, storage and disposal of such materials are designed to comply with applicable laws and regulations. While we believe we are currently in compliance with all material applicable environmental regulations, if we are found to not comply with environmental regulations, or if we are involved with contamination or injury from these materials, then we may be subject to civil and criminal penalties. This would have a negative impact on our reputation and finances, and could result in a slowdown or even complete cessation of our business.

NEGATIVE CONDITIONS IN THE GLOBAL CREDIT MARKETS MAY IMPAIR THE LIQUIDITY OF A PORTION OF OUR INVESTMENT PORTFOLIO.

Our investment securities consist of high-grade auction rate securities, corporate debt securities and government agency securities. As of December 31, 2007, our short-term investments included $14.1 million of high-grade (AAA rated) auction rate securities issued primarily by municipalities. The recent negative conditions in the global credit markets have prevented some investors from liquidating their holdings, including their holdings of auction rate securities. In early March 2008, we were informed that there was insufficient demand at auction for six of our high-grade auction rate securities, representing approximately $13.6 million. As a result, these affected securities are currently not liquid, and we could be required to hold them until they are redeemed by the issuer or to maturity. We may experience a similar situation with our remaining auction rate securities. 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 a future auction on these investments is successful, the securities are redeemed by the issuer or they mature. At this time, management has not obtained sufficient evidence to conclude that these investments are impaired or that they will not be settled in the short term, although the market for these investments is presently uncertain. If the credit ratings of the security issuers deteriorate and any decline in market value is determined to be other-than-temporary, we would be required to adjust the carrying value of the investment through an impairment charge.

CHANGES IN FOREIGN EXCHANGE RATES MAY AFFECT OUR FUTURE OPERATING RESULTS.

In January 2005, we acquired Inovio AS, a Norwegian company. During the years ended December 31, 2007 and 2006, Inovio AS contributed approximately $159,000 and $1.1 million to our revenue, respectively, which amounted to approximately 3% and 33% of our total revenue. Inovio AS conducts its operations primarily in foreign currencies, including the Euro, Norwegian Kroner and Swedish Krona. In September 2006, we established Inovio Asia Pte. Ltd., a company incorporated in the Republic of Singapore, which conducts its operations primarily in Singaporean dollars. Fluctuation in the values of these foreign currencies relative to the U.S. dollar will affect our financial results which are reported in U.S. dollars and will cause U.S. dollar translation of such currencies to vary from one period to another. We cannot predict the scope of any fluctuations in the values of these foreign currencies relative to the U.S. dollar nor the effect of exchange rate fluctuations upon our future operating results.

OUR RESTRUCTURING OF OUR NORWEIGIAN SUBSIDIARY, INOVIO AS, MAY NOT REALIZE THE EFFICIENCIES ANTICIPATED AND COULD RESULT IN ADDITIONAL, UNANTICIPATED LIABILITIES, WHICH WOULD HAVE A NEGATIVE EFFECT ON OUR FINANCIAL CONDITION.

On December 31, 2007, our wholly-owned Norwegian subsidiary Inovio AS transferred certain patent and other intellectual property rights ("IPR") to our wholly owned U.S. subsidiary

Genetronics, Inc. The value assigned to these rights was $1.9 million, which was determined by a valuation specialist in Norway. All Norwegian tax gains associated with this transfer of the patents and IPR was offset by prior year tax loss carry forwards. Subsequent to year-end, Inovio changed the name of Inovio AS to Inovio Tec AS. Simultaneously, we incorporated a new Norwegian wholly-owned subsidiary under the name Inovio AS, for the purpose of organizing a research effort directed towards the development of specific cancer vaccine candidates. In January 2008, all employees, employee agreements, lease agreements and fixed assets were transferred from Inovio Tec AS to Inovio AS, and the parties intend to enter into a licensing agreement governing use of future IPR shortly. Further, although we and our board of directors retain ultimate control over and responsibility for Inovio AS, Inovio AS now has a distinct board of directors, consisting of two members of our board of directors and two Norwegian personnel, intended to allow more efficient balancing of U.S. legal and regulatory concerns with Norwegian legal and regulatory concerns in the course of decision-making.

This restructuring of our Norwegian operations is intended to better focus the research and development efforts conducted in Norway on our strategic programs and easing access to previously developed IPR for Inovio and its other subsidiaries. We expect funding for this program to be about $5.0 million over the next several years. Although designed to be tax-neutral to the parties, we cannot assure you that the tax authorities in Norway or the U.S. will agree with the valuation of the transferred assets or the procedures through which the transfers were made. If such disagreements were to arise, we may face unanticipated tax liabilities in Norway or the U.S. arising from the asset transfer. Further, as there will be an ongoing licensing relationship between the parties post-transfer, it is possible that such arrangements will receive heightened scrutiny for potential transfer pricing issues, which could result in additional liability to us. We believe that the new Inovio AS is now appropriately organized and staffed, and has the necessary resources and commitments for future resources to conduct its research and development efforts in support of our business strategy. However, we cannot assure readers that Inovio AS will not require further staff or financing beyond these initial commitments, or that we will be able to provide such resources if and when requested. To the extent Inovio AS or we face additional tax or transfer pricing issues, our operating results and overall financial condition may be adversely affected. In particular, if we are unable to provide additional support for Inovio AS when requested, Inovio AS may not be able to reach previously specified targets and milestones in a timely manner, undermining its financial stability and the commercial potential for its prostate cancer vaccine program.

OUR FACILITIES ARE LOCATED NEAR KNOWN EARTHQUAKE FAULT ZONES, AND THE OCCURRENCE OF AN EARTHQUAKE OR OTHER CATASTROPHIC DISASTER COULD CAUSE DAMAGE TO OUR FACILITIES AND EQUIPMENT.

Our facilities are located near known earthquake fault zones and are vulnerable to damage from earthquakes. We are also vulnerable to damage from other types of disasters, including fire, floods, power loss, communications failures and similar events. If any disaster were to occur, our ability to operate our business at our facilities would be seriously impaired. In addition, the unique nature of our research activities could cause significant delays in our programs and make it difficult for us to recover from a disaster. The insurance we maintain may not be adequate to cover our losses resulting from disasters or other business interruptions. Accordingly, an earthquake or other disaster could materially and adversely harm our ability to conduct business.

ITEM 1B. UNRESOLVED STAFF COMMENTS

The restatement herein of certain of our consolidated financial statements is meant to bring final resolution on pending comments from the SEC staff as more fully described in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 2 to our Consolidated Financial Statements included elsewhere in this report.

ITEM 2. PROPERTIES

We own no real property and have no plans to acquire any real property in the future. On January 28, 2005, we moved into new headquarters of 22,867 square feet at 11494 Sorrento Valley Road in San Diego, California. This facility provides adequate space for our current research, manufacturing, and administrative operations. This lease runs through February 28, 2010. The annual rent for this leased property is $433,901 in the first two years and $452,767 in year three and four of the original lease term. The annual rent for the fifth and final year of the original lease term is $480,207. At the end of the original 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 connection with this lease, we issued a warrant to purchase 50,000 shares of our common stock at $5.00 per share to the landlord of this leased facility in December 2004. This warrant was immediately exercisable and expires five years from the date of issuance. This warrant was valued on the date of issuance using the Black-Scholes pricing model. The fair value of this warrant, $120,913, is being recognized ratably over the five-year term of the lease as rent expense. As of December 31, 2007, this warrant had not been exercised.

In January 2008, we entered into a new facility lease in Oslo, Norway to support our research and development activities conducted through our subsidiary Inovio AS. The term of the lease is for three years and may be terminated with three months notice. Monthly rent is approximately $3,400 per month.

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

Pyrce v. Inovio Biomedical Corporation, Genetronics Biomedical Corporation, Genetronics, Inc., Inovio AS, DOES 1 to 50, Superior Court of California, County of San Diego, Case No. 37-2007-000758899-CU-BC-CTL (Hon. Ronald L. Styn). The plaintiff, a former consultant to Inovio AS, commenced this civil lawsuit against the Company and various subsidiaries in state court on September 28, 2007. The Company disputes plaintiff's claims, believes they are without merit and intends to defend this matter vigorously.

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

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2007.

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 principally traded, on the American Stock Exchange (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,			
	2007		2006	
Period:	High	Low	High	Low
First Quarter	$ 3.46	$ 2.82	$ 3.15	$ 2.28
Second Quarter	$ 4.17	$ 2.20	$ 2.67	$ 2.00
Third Quarter	$ 2.94	$ 1.16	$ 2.58	$ 2.01
Fourth Quarter	$ 1.51	$ 0.85	$ 3.59	$ 2.62

As of March 7, 2008, we had approximately 432 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 7, 2008 was $1.45, as reported on the AMEX.

Dividends

The payment of any dividends on our common stock is within the discretion of our board of directors. However, we may not pay dividends on our common stock without the consent of holders of a majority of each Series of our outstanding Preferred Stock. 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.

The holders of our Series A and B Preferred Stock were entitled to receive an annual dividend at the rate of 6%, payable quarterly, through September 30, 2006. 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 we may have elected to pay the dividends to the holders in common stock. There were no dividends paid to the former holders of our Series A and B Preferred Stock during the year ended December 31, 2007. We paid dividends to the holders of our Series A and B Preferred Stock through the issuance of 2,871 shares of our common stock valued at $7,693 and in cash of $15,140 during the year ended December 31, 2006; and through the issuance of 55,518 shares of our common stock valued at $179,956 and in cash of $60,235 during the year ended December 31, 2005. As of December 31, 2007 and 2006 there were no shares of Series A or B Preferred Stock outstanding.

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 we may have elected to pay the dividends to the holders in common stock. During the year ended December 31, 2007, we paid dividends to the holders of our Series C Preferred Stock in cash of $23,335. During the year ended December 31, 2006, we paid dividends to the holders of our Series C Preferred Stock in cash of $117,204 and accrued dividends of $14,571 which were converted into common shares and warrants as part of a private placement we completed in October 2006. During the year ended December 31, 2005, we paid dividends in cash of $553,694. As of December 31, 2007 and 2006, there were 71 and 102 shares of Series C Preferred Stock outstanding, respectively.

Repurchases

We did not repurchase any of our equity securities during the fourth quarter of fiscal 2007.

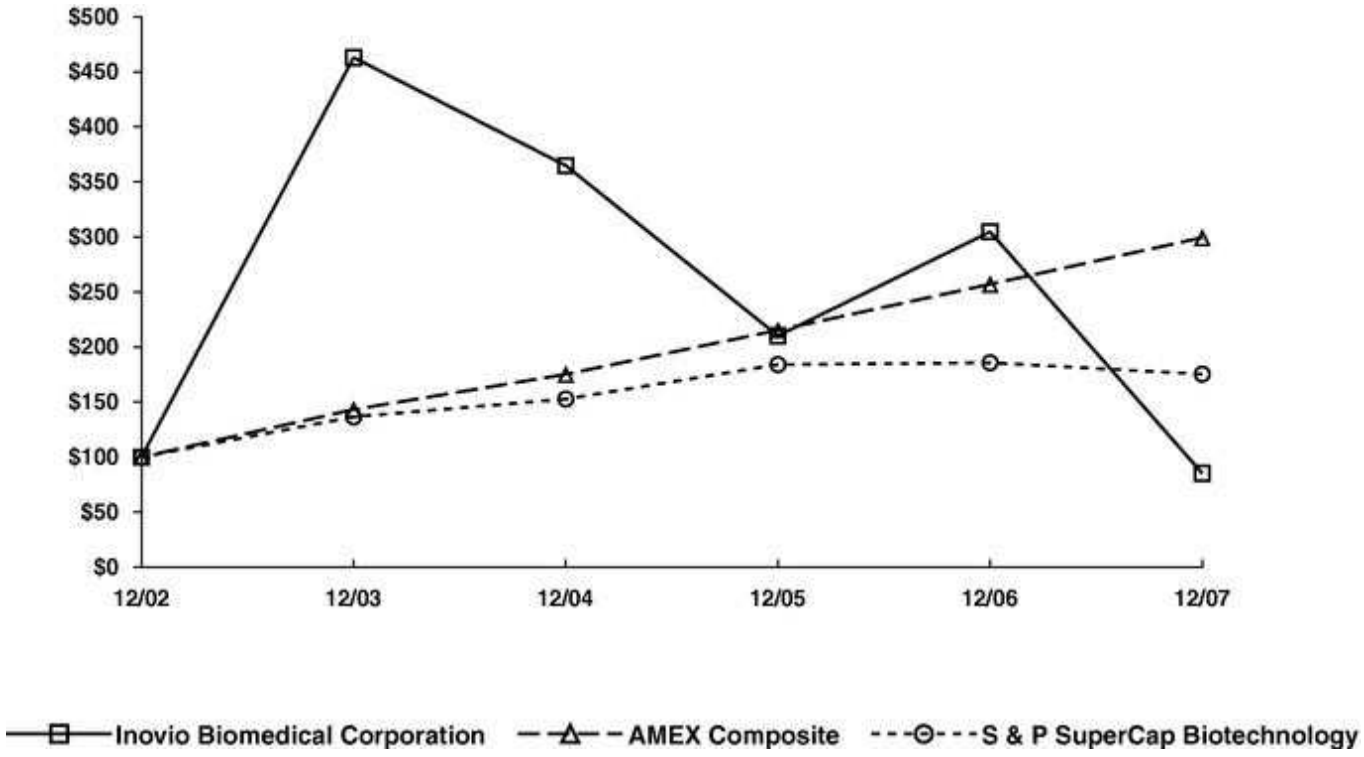
Equity Compensation Plans

Our equity compensation plan information is provided as set forth in Part III, Item 11 herein.

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 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, 2002 and tracks it through December 31, 2007.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Inovio Biomedical Corporation, The AMEX Composite Index
And S & P SuperCap Biotechnology Index



*$100 invested on 12/31/02 in stock or index—including reinvestment of dividends.
Fiscal year ending December 31.

	12/02	12/03	12/04	12/05	12/06	12/07
Inovio Biomedical Corporation	**100.00**	**462.96**	**364.81**	**210.19**	**304.63**	**85.18**
AMEX Composite	**100.00**	**143.18**	**175.20**	**215.26**	**257.04**	**299.37**
S & P SuperCap Biotechnology	**100.00**	**136.57**	**152.72**	**184.02**	**185.69**	**175.32**

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

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 and give effect to the restatement described in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and in Note 2 to the Consolidated Financial Statements and related notes thereto included elsewhere in this report.

	Year Ended December 31, 2007	Year Ended December 31, 2006(c)	Year Ended December 31, 2005(a)	Year Ended December 31, 2004	Year Ended December 31, 2003
		As restated			
Operations Data:					
License fee and milestone payments	$ 2,793,478	$ 1,337,105	$ 2,563,283	$ 214,351	$ 5,882
Revenue under collaborative research & development arrangements	1,854,303	962,207	1,492,145	945,591	74,647
Grants & miscellaneous revenue	159,948	1,168,866	1,411,825	7,157	—
Total revenue	4,807,729	3,468,178	5,467,253	1,167,099	80,529
Loss from continuing operations	(15,898,420)	(13,346,194)	(15,506,970)	(11,263,140)	(6,588,245)
Gain on disposal of assets	—	—	—	290,209	2,034,078
Interest & other income(b)	4,693,977	1,002,252	210,118	247,555	45,017
Net loss	(11,204,443)	(12,343,942)	(15,296,852)	(10,972,931)	(4,664,907)
Imputed dividends common stock	—	—	(8,329,112)	—	—
Imputed & declared dividends preferred stock	(23,335)	(2,005,664)	(2,736,658)	(732,405)	(18,210,530)
Net loss attributable to common stockholders	$ (11,227,778)	$ (14,349,606)	$ (26,362,622)	$ (11,705,336)	$ (22,875,437)
Per common share—basic & diluted:					
Net loss	$ (0.27)	$ (0.40)	$ (0.81)	$ (0.62)	$ (0.35)
Imputed dividends common stock	—	—	(0.44)	—	—
Imputed & declared dividends preferred stock	—	(0.06)	(0.14)	(0.04)	(1.37)
Net loss attributable to common stockholders	$ (0.27)	$ (0.46)	$ (1.39)	$ (0.66)	$ (1.72)
Balance Sheet Data:					
Cash and cash equivalents	$ 10,250,929	$ 8,321,606	$ 17,166,567	$ 17,889,797	$ 13,460,446
Short-term investments	16,999,600	14,700,000	—	—	—
Total assets	39,775,021	35,949,615	28,978,954	20,951,502	16,228,990
Current liabilities	3,354,499	6,859,722	4,002,280	5,401,992	1,158,819
Accumulated deficit	(139,847,326)	(128,619,548)	(114,269,942)	(87,907,320)	(76,201,984)
Total stockholders equity	31,034,754	18,151,864	23,470,748	15,549,510	15,047,635

(a) On January 25, 2005, we consummated the acquisition of Inovio AS, a Norwegian company. For information concerning this acquisition, see Note 16 of Notes to the Consolidated Financial Statements appearing later in this report. For a discussion of the affect of this acquisition on our operating results during 2005, see Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

(b) The interest and other income increases in 2007 and 2006 are primarily due to the revaluation of common stock warrants resulting in a decrease in the fair value of the liability and an increase in other income. In addition, the increases are also due to larger cash and short term investment balances and higher average interest rates.

(c) Operations and Balance Sheet Data for the year ended December 31, 2006 has been restated to reflect the reclassification of registered common stock warrants from equity to current liabilities, also impacting interest and other income. See Note 2 to the Consolidated Financial Statements for further discussion regarding this restatement where statement of operations and balance sheet data are presented for the first three quarters of fiscal 2007, the fourth quarter of fiscal 2006 and the year ended December 31, 2006, the periods in which the adjustments were made.

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

THIS ANNUAL REPORT ON FORM 10-K CONTAINS FORWARD-LOOKING STATEMENTS THAT INVOLVE RISKS AND UNCERTAINTIES. SUCH STATEMENTS INCLUDE, BUT ARE NOT LIMITED TO, STATEMENTS CONTAINING THE WORDS "BELIEVES," "ANTICIPATES," "EXPECTS," "ESTIMATES" AND WORDS OF SIMILAR MEANING. OUR ACTUAL RESULTS COULD DIFFER MATERIALLY FROM ANY FORWARD-LOOKING STATEMENTS, WHICH REFLECT MANAGEMENT'S OPINIONS ONLY AS OF THE DATE OF THIS REPORT, AS A RESULT OF SUCH RISKS AND UNCERTAINTIES. WE UNDERTAKE NO OBLIGATION TO REVISE OR PUBLICLY RELEASE THE RESULTS OF ANY REVISIONS TO THESE FORWARD-LOOKING STATEMENTS. FACTORS THAT COULD CAUSE OR CONTRIBUTE TO SUCH DIFFERENCES INCLUDE, BUT ARE NOT LIMITED TO, THOSE FOUND IN THIS ANNUAL REPORT ON FORM 10-K IN PART I, ITEM 1A "RISK FACTORS;" IN THIS PART II, ITEM 7, "MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS;" AND ADDITIONAL FACTORS DISCUSSED ELSEWHERE IN THIS ANNUAL REPORT AND IN OTHER DOCUMENTS WE FILE FROM TIME TO TIME WITH THE SECURITIES AND EXCHANGE COMMISSION, INCLUDING OUR QUARTERLY REPORTS ON FORM 10-Q. READERS ARE CAUTIONED NOT TO PLACE UNDUE RELIANCE ON ANY FORWARD-LOOKING STATEMENTS.

The following discussion should be read in conjunction with the consolidated financial statements and notes thereto appearing elsewhere in this Form 10-K. The information below has been adjusted solely to reflect the impact of the restatement on our financial results which is more fully described in Note 2 to the consolidated financial statements contained in this report and under the paragraph "Restatement of Previously Issued Consolidated Financial Statements" below and does not reflect any subsequent information or events occurring after the date of the filing of our reports originally presenting the financial information being restated or update any disclosure herein to reflect the passage of time since the date of such filings. For a more comprehensive description of our business, see Part I. Item 1. Business.

Restatement of Previously Issued Consolidated Financial Statements

In this report, we have restated our previously issued consolidated financial statements to reflect certain accounting adjustments. The impact of the restatement on our previously issued consolidated financial statements is as follows:

In October 2006, we issued 4,074,067 registered shares of our common stock and registered warrants exercisable for 1,425,919 shares of our common stock for approximately $9.9 million in a registered direct financing solely involving offshore investors. In August 2007, we issued 230,000 registered shares of our common stock and registered warrants exercisable for 150,000 shares of our common stock to Asia Life Sciences Venture Consulting Inc. ("ALVC"), in consideration for identifying opportunities for the license or sale of all or part of one of our SECTA therapy programs. We originally classified the registered warrants issued in both transactions as equity, however after substantial discussions with the staff of the SEC regarding the legal and accounting principles applicable to the facts and circumstances surrounding the issuance of these registered warrants, arising in response to a comment letter received from the SEC, we determined that the warrants should be classified as a liability pursuant to Emerging Issues Task Force ("EITF") Issue 00-19, "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.

Thus, our management determined, in consultation with our independent registered public accounting firm, Ernst & Young LLP, that due to the error in the initial classification of the registered

warrants, our previously issued consolidated financial statements for the fiscal year ended December 31, 2006 and the subsequent interim periods in 2007 and the related reports of Ernst & Young LLP and all earnings and similar communications issued by us since December 31, 2006 should no longer be relied upon and should be restated to reflect the impact of the required reclassification of the registered warrants. We filed a Current Report on Form 8-K with the SEC on February 12, 2008 notifying investors of such determination. The restatement resulted in the reclassification of the fair value of the registered warrants upon issuance from equity to a liability in the amounts of $3.7 million for the October 13, 2006 issuance and $232,000 for the August 3, 2007 issuance. Subsequent to the issuance, the warrants are required to be marked-to-market to their current fair value for each reporting period. The revaluation of the registered warrants at each subsequent balance sheet date resulted in a reduction in the carrying value of the liability to $3.5 million as of the year ended December 31, 2006, $3.2 million as of the quarter ended March 31, 2007, $2.5 million as of the quarter ended June 30, 3007, and $790,000 as of the quarter ended September 30, 2007. Also, the revaluation of the registered warrants at each subsequent balance sheet date is reflected in the consolidated statements of operations as "Other income" or "Other expense," which resulted in an increase to other income of $135,000 for the year ended December 31, 2006, $330,000 for the quarter ended March 31, 2007, $727,000 for the quarter ended June 30, 3007, and $1.9 million for the quarter ended September 30, 2007. If unexercised, the warrants will expire in October 2011 and August 2012, respectively. There is no effect on the consolidated Statement of Cash Flows as a result of this change as the mark-to-market adjustment would have been reflected as a non-cash charge within our consolidated Statements of Operations.

We have only restated our consolidated financial statements for the impacted periods in this Annual Report on Form 10-K for the year ended December 31, 2007. In Note 2 to our consolidated financial statements included elsewhere in this report are tables that set forth the amounts impacted by the restatement that were previously reported in our consolidated balance sheets and consolidated statement of operations as of and for the periods ended September 30, 2007, June 30, 2007, March 31, 2007 and December 31, 2006. We have not amended our previously filed Annual Report on Form 10-K for the year ended December 31, 2006 or Quarterly Reports on Form 10-Q for the interim reporting periods in 2007, and the financial statements and related financial statement information contained in those reports should no longer be relied upon. Throughout this report, all amounts presented from prior periods and prior period comparisons are labeled "As restated" and reflect the balances and amounts on a restated basis.

Overview

Inovio Biomedical Corporation, a Delaware corporation, organized in 2001, is a San Diego-based biomedical company focused on the development of next-generation vaccines to prevent or treat cancers and chronic infectious diseases. Such vaccines, which could potentially protect millions of people from debilitation or death from diseases without adequate treatments, may represent multi-billion dollar market opportunities. Historically successful development of this new generation of vaccines—DNA vaccines—has been hindered by the lack of safe, efficient and cost effective DNA delivery methods capable of enabling their potency. However, our electroporation-based DNA delivery technology has shown potential in pre-clinical and clinical studies to play a pivotal role in facilitating delivery and enhancing the potency of preventive and therapeutic vaccines.

We are a leader in developing DNA delivery solutions based on electroporation, which uses brief, controlled electrical pulses to create temporary pores in cell membranes and enable increased cellular uptake of a useful biopharmaceutical. Once the DNA vaccine enters a cell, it can then "express" the proteins it was encoded to produce. These proteins, or antigens, are designed to be uniquely associated with a targeted cancer or infectious disease, and may then stimulate a more powerful immune response if the immune system encounters the targeted disease at a subsequent time.

Inovio's business strategy to realize value for the company and its stockholders is as follows:

First, we have leveraged our patented technologies through licensing and collaborations, such as our licensing arrangements with Merck & Co., Inc., or Merck, Wyeth Pharmaceuticals, or Wyeth and Vical Inc., or Vical, among other research-driven biopharmaceutical companies as well as government and non-government agencies. We are licensing the use of our electroporation-based DNA delivery systems for partners to use in conjunction with their proprietary DNA vaccines or DNA-based immunotherapies. These arrangements provide us with some combination of upfront payments, development fees, milestone payments, royalties and a supply agreement. These partners are pursuing development of proprietary agents or conducting research using our technology.

Second, we are pursuing proprietary vaccine development or co-development, resulting in whole or partial ownership in promising vaccines to prevent or treat cancers and chronic infectious diseases. We currently have a collaborative commercialization agreement with Tripep AB, or Tripep, to co-develop a novel DNA hepatitis C therapeutic vaccine (HCV), for which they received approvals from the Swedish Medical Products Agency (MPA) and local ethics committees to initiate a Phase I/II clinical trial, which has now begun enrollment. We also have two undisclosed programs underway in pre-clinical studies to generate a protective immune response with electroporation mediated delivery of an antigen in relevant animal models.

Inovio's technology is protected by an extensive patent portfolio covering in vivo electroporation. Our patent portfolio encompasses a range of apparatuses, methodologies, conditions, and applications including oncology, gene delivery, vascular, transdermal as well as ex vivo electroporation.

As of December 31, 2007, we had an accumulated deficit of $139.8 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.

Revenue is recognized in accordance with Staff Accounting Bulletin ("SAB") No. 104, "Revenue Recognition in Financial Statements" and EITF Issue 00-21, "Revenue Arrangements with Multiple Deliverables."

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 collectibility is reasonably assured.

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 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, collectibility 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. We expense all such expenditures in the period incurred. Our expenses related to clinical trials are based on services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation and vary from contract to contract and may result in uneven payment flows. Generally, these agreements set forth the scope of work to be performed at a fixed fee or unit price. Payments under the contracts depend on factors such as the successful enrollment of patients or the completion of clinical trial milestones. Expenses related to clinical trials generally are accrued based on contracted amounts applied to the level of patient enrollment and activity according to the protocol. If timelines or contracts are modified based upon changes in the clinical trial protocol or scope of work to be performed, we modify our estimates accordingly on a prospective basis. In-process research and development ("IPR&D") costs realized upon the acquisition of Inovio AS (see Note 16) were valued using the royalty savings method. Under this method, the value of acquired technology is a function of the projected revenues attributable to the products utilizing the asset, the royalty rate that would hypothetically be charged by a licensor of the technology to a licensee, and an appropriate discount rate to reflect the inherent risk of the projected cash flows.

Valuation of Goodwill and Intangible Assets. Our business acquisitions typically result in goodwill and other intangible assets, and the recorded values of those assets may become impaired in the future. 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.

We record patents at cost and amortize 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. 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, 2007, our goodwill and intangible assets resulting from acquisition costs of Inovio AS, and additional intangibles including patents and license costs, net of accumulated amortization, totaled $10.1 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, 2007.

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.

Share-Based Compensation. Effective January 1, 2006, we account for share-based compensation expense in accordance with the provisions of Statement of Financial Accounting Standards No. 123R ("SFAS 123R") using the modified prospective application method. Share-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.

Registered Common Stock Warrants: We account for registered common stock warrants in accordance with Emerging Issues Task Force ("EITF") Issue 00-19 "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 balance sheet as a current liability which is marked-to-market at each balance sheet date subsequent to the initial issuance. Changes in the fair market value of the warrants are reflected in the statement of operations as "Other income and expense".

Recent Accounting Pronouncements

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

Results of Operations

Our results of operations give effect to the restatement of our previously issued consolidated financial statements as more fully described above.

Comparison of Years Ended December 31, 2007 and 2006

The audited consolidated financial data for the years ended December 31, 2007 and December 31, 2006 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	December 31, 2007	December 31, 2006 As restated	Increase/ (Decrease) $	Increase/ (Decrease) %
Revenue:				
License fee and milestone payments	$ 2,793,478	$ 1,337,105	$ 1,456,373	109%
Revenue under collaborative research and development arrangements	1,854,303	962,207	892,096	93
Grants and miscellaneous revenue	159,948	1,168,866	(1,008,918)	(86)
Total revenue	4,807,729	3,468,178	1,339,551	39
Operating expenses:				
Research and development	9,625,947	8,509,785	1,116,162	13
General and administrative	11,080,202	8,304,587	2,775,615	33
Total operating expenses	20,706,149	16,814,372	3,891,777	23
Loss from operations	(15,898,420)	(13,346,194)	2,552,226	19
Interest and other income	4,693,977	1,002,252	3,691,725	368
Net loss	(11,204,443)	(12,343,942)	(1,139,499)	(9)
Imputed and declared dividends on preferred stock	(23,335)	(2,005,664)	(1,982,329)	(99)
Net loss attributable to common stockholders	$ (11,227,778)	$ (14,349,606)	$ (3,121,828)	(22)%

Revenue

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

Our total revenue increased $1.3 million or 39% for the year ended December 31, 2007, as compared to fiscal 2006 due to significant increases in license fees, milestone payments and revenue under collaborative research and development arrangements, offset partially by a large decrease in grant revenue.

The $1.5 million increase in license fees and milestone payments for the year ended December 31, 2007, as compared to fiscal 2006 was primarily due to the recognition of a $2.0 million milestone payment during fiscal 2007, resulting from the achievement of a clinical 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. We also recognized $175,000 in higher Wyeth license fee revenue in fiscal 2007 as compared to fiscal 2006, and acquired license agreements to our GeneSwitch® technology resulting in increased revenue of $130,000 during fiscal 2007. These increases were partially offset by no Valentis license fee revenue during fiscal 2007 as compared to $480,000 during fiscal 2006, and decreased revenue of $344,000 from the Merck licensing agreement in 2007 as this agreement was fully amortized in May 2007.

The $892,000 increase in revenue under collaborative research and development arrangements during the year ended December 31, 2007, as compared to the 2006 fiscal year, was due to an $814,000

increase in Wyeth billings based on our collaborative agreement related to the commercialization of the Elgen device, and $78,000 in higher Merck collaborative research billings during 2007 as compared to 2006. Billings from research and development work performed pursuant to the Wyeth and Merck agreements are recorded as revenue as the related research expenditures are incurred.

The $1.0 million decrease in grant and miscellaneous revenue was due to minimal revenue recognized from U.S. Army grants during fiscal 2007 as compared to $899,000 during fiscal 2006 and a reduction in revenue recognized by Inovio AS from our European Union grant due to the timing of work performed.

During the years ended December 31, 2007 and 2006, we recognized revenue of $159,000 and $1.1 million, respectively, attributable to the operations of Inovio AS, a Norwegian company that we acquired in January 2005, which amounted to approximately 3% and 33% of our total revenue. Inovio AS' revenue primarily consists of amounts received from grants and licensing revenue.

Research and Development Expenses

The $1.1 million increase in research and development expenses for the year ended December 31, 2007, as compared to fiscal 2006, was primarily due to an increase in clinical trial expenses associated with patient enrollment, clinical site costs, data collection and monitoring costs, and increased costs related to the use of Clinical Research Organization ("CROs") and Clinical Research Associates ("CRAs") related to our SECTA therapy program. Additional increases are associated with the expansion of our in-house engineering and research expertise, increased consulting services, increased lab supplies related to our existing and next generation programs, increased outside lab testing performed, and expensed inventory costs. These increases were partially offset by a $672,000 decrease in expenses attributable to Inovio AS totaling $697,000 and $1.4 million during the years ended December 31, 2007 and 2006, 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.

Depending upon the progress of our programs and availability of capital, we expect our research and development expenses during the year ending December 31, 2008 to remain consistent when compared to the year ended December 31, 2007.

General and Administrative Expenses

General and administrative expenses include business development expenses and the amortization of intangible assets. The $2.8 million increase in general and administrative expenses for the year ended December 31, 2007, as compared to fiscal 2006, was primarily due to an increase in outside consulting services related to partnering our SECTA therapy program, an increase in investor relations services associated with expanding our DNA and gene therapy program, an increase in personnel expenses associated with expanding our in-house expertise, increased legal fees associated with intellectual property and business development efforts, and increased legal, accounting and auditing fees primarily attributable to matters related to correspondence with the SEC. In addition, we recorded a reduction of goodwill in 2007 related to the realization of foreign net operating loss carryforwards. General and administrative costs attributable to Inovio AS were $84,000 for the year ended December 31, 2007 and were insignificant for the year ended December 31, 2006.

Depending upon the progress of our programs and our availability of capital, we expect our general and administrative expenses during the year ending December 31, 2008 to decrease slightly when compared to the year ended December 31, 2007.

Share-Based Compensation.

Effective January 1, 2006, we adopted Statement of Financial Accounting Standards ("SFAS") No. 123(R), *Share-Based Payment* , and elected to adopt the modified prospective application method. SFAS No. 123(R) requires us to use a fair-value based method to account for stock-based compensation. Accordingly, 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 under SFAS No. 123(R) for our stock plans for the years ended December 31, 2007 and 2006 was $1.6 million and $1.3 million, of which $354,064 and $423,229 was included in research and development expenses and $1.2 million and $920,874 was included in general and administrative expenses, respectively. At December 31, 2007, there was $1.3 million 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 $946,844 for the year ended December 31, 2006. Total stock-based compensation for options granted to non-employees for the years ended December 31, 2007 and 2006 was $119,191 and $202,604, respectively.

Interest and Other Income

Our management determined on February 6, 2008 that registered warrants issued by us in October 2006 and August 2007 required reclassification from equity to liability in our consolidated financial statements for the year ended December 31, 2006 and the interim reporting periods in 2007. As a result of these reclassifications and from the net decrease in the fair value of common stock warrants issued, non-cash other income of $3.4 million and $135,000 was recognized for the years ended December 31, 2007 and 2006, respectively, resulting in an increase of $3.3 million during fiscal 2007. If unexercised, the warrants will expire in October 2011 and August 2012, respectively.

The remaining increase in interest and other income for fiscal 2007, as compared to fiscal 2006, was primarily due to a larger cash and short-term investments balance and higher average interest rate.

Imputed and Declared Dividends on Preferred Stock

The former holders of our Series A and B Preferred Stock received an annual dividend at a rate of 6%, in shares of common stock or cash, payable quarterly through September 30, 2006. As a result, no dividends were paid to Series A or B Preferred Stock holders during the year ended December 31, 2007. We paid cash of $345 and issued a total of 2,871 shares valued at $7,693 to the former holders of our Series A Preferred Stock, and we paid $14,795 in cash to the former holders of our Series B Preferred Stock during fiscal 2006.

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 $23,335 during fiscal 2007 to holders of our Series C Preferred Stock. We paid cash $117,204 during fiscal 2006 to holders of our Series C Preferred Stock and accrued $14,571 for certain holders of our Series C Preferred Stock who participated in an equity financing we completed in October 2006.

During 2006, we recorded an imputed dividend charge of $1.9 million during the three months ended December 31, 2006, related to the investors who converted $1.2 million of their Series C Preferred Stock investment into 473,744 shares of our common stock as part of our private placement closed in October 2006. This imputed dividend charge was calculated using guidance contained in Emerging Issues Task Force ("EITF") Issue No. 00-27, "Application of Issue No. 98-5 to Certain

Convertible Instruments." As part of this private placement, these investors received 304,450 additional shares of our common stock, as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. Under EITF Issue No. 00-27, this incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the $1.9 million imputed dividend charge associated with this beneficial conversion.

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, 2007, we had net operating loss carry forwards for federal and state income tax purposes of approximately $55.9 million and $50.8 million, respectively. We also had federal and state research and development tax credits of approximately $714,000 and $989,000, 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, 2006 and 2005

The audited consolidated financial data for the years ended December 31, 2006 and December 31, 2005 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	December 31, 2006	December 31, 2005	Increase/ (Decrease) $	Increase/ (Decrease) %
	As restated			
Revenue:				
License fee and milestone payments	$ 1,337,105	$ 2,563,283	$ (1,226,178)	(48)%
Revenue under collaborative research and development arrangements	962,207	1,492,145	(529,938)	(36)
Grants and miscellaneous revenue	1,168,866	1,411,825	(242,959)	(17)
Total revenue	3,468,178	5,467,253	(1,999,075)	(37)
Operating expenses:				
Research and development	8,509,785	11,454,773	(2,944,988)	(26)
General and administrative	8,304,587	6,187,450	2,117,137	34
Charge for acquired in-process research and development	—	3,332,000	(3,332,000)	(100)
Total operating expenses	16,814,372	20,974,223	(4,159,851)	(20)
Loss from operations	(13,346,194)	(15,506,970)	2,160,776	(14)
Interest and other income	1,002,252	210,118	792,134	377
Net loss	(12, 343,942)	(15,296,852)	(2,952,910)	(19)
Imputed and declared dividends on preferred stock	(2,005,664)	(11,065,770)	(9,060,106)	(82)
Net loss attributable to common stockholders	$ (14,349,606)	$ (26,362,622)	$ (12,013,016)	(46)%

Revenue

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

Our total revenue decreased $2.0 million or 37% for the year ended December 31, 2006, as compared to fiscal 2005 due to significant decreases in license fees, milestone payments and revenue under collaborative research and development arrangements as well as a decrease in grant revenue.

The $1.2 million decrease in license fees and milestone payments for the year ended December 31, 2006, as compared to the 2005 fiscal year, was mainly due to the recognition of a $2.0 million milestone payment during June 2005, resulting from the achievement of a clinical milestone by Merck for a plasmid-based vaccine using our MedPulser® DNA Delivery System. This decrease was offset by license fee payments of $1.0 million and $500,000 received from Merck in May 2004 and June 2005, respectively, under which the parties seek to develop and commercialize our MedPulser® DNA Delivery System for use with certain of Merck's DNA vaccine programs, combined with revenue recognized from new licensing and milestone agreements entered into during 2006. The license payments we have received from Merck in prior years are being amortized over the remaining minimum term of the agreement. Royalties are receivable on sales of a product utilizing our device. As of December 31, 2006, no royalties had been received.

The $530,000 decrease in revenue under collaborative research and development arrangements during the year ended December 31, 2006, as compared to the 2005 fiscal year, was primarily due to less collaborative research and development revenue recognized from our agreement with Merck. Billings from research and development work performed pursuant to our agreement with Merck are recorded as revenue as the related research expenditures are incurred.

The $243,000 decrease in grant and miscellaneous revenue was mainly due to less revenue recognized by Inovio AS from our European Union and U.S. Army grants due to the timing of work performed.

During the year ended December 31, 2006 and 2005, we recognized revenue of $1.1 million and $1.3 million attributable to the operations of Inovio AS, a Norwegian company that we acquired in January 2005, which amounted to approximately 33% and 24% of our revenue. Inovio AS' revenue primarily consists of amounts received from grants, which are received primarily in foreign currencies, including the Euro, Norwegian Kroner and Swedish Krona.

Research and Development Expenses

The $2.9 million decrease in research and development expenses for the year ended December 31, 2006, as compared to fiscal 2005, was primarily due to a decrease in clinical trial expenses. Historically, clinical expenses have included costs related to the use of an outside CRO. Throughout the year ended December 31, 2006, we increased the use of internal resources and other smaller outside CROs to more cost effectively fulfill those activities formerly undertaken by this CRO. The remainder of the decrease was mainly due to lower cost of manufacturing products to support these clinical trials and research collaborations, decreased external research expenses, legal fees and other expenses associated with our clinical trials and lower outside regulatory consulting costs associated with our clinical trials. These were offset by an increase in share-based compensation expense of $423,229 for the year ended December 31, 2006, related to options issued to employees. During the years ended December 31, 2006 and 2005, research and development expenses also included $1.4 million and $1.1 million, in research and development costs attributable to Inovio AS.

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. For instance, the duration and the cost of clinical trials may vary significantly depending on a variety of factors including the number of patients in the trial, the number of clinical sites in the trial, and the length of time required enrolling suitable patient subjects. 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.

General and Administrative Expenses

The $2.1 million increase in general and administrative expenses for the year ended December 31, 2006, as compared to fiscal 2005, was mainly due to share-based compensation expense of $920,874, related to options issued to employees. The remainder of the increase was due to legal fees associated with intellectual property and business development, an increase in accounting and audit fees, an increase in recruiting and relocation expenses associated with expanding our in-house expertise, an increase in royalty obligations related to licensing agreements entered into during 2006 and an increase in our consultant share-based compensation expense. General and administrative costs attributable to Inovio AS were insignificant for the year ended December 31, 2006, and $88,187 for the year ended December 31, 2005. Amortization of intangible assets was $225,000 and $206,250 for the years ended December 31, 2006 and 2005, respectively, related to an intangible asset associated with contracts and intellectual property acquired as part of our purchase of Inovio AS in January 2005.

Share-Based Compensation.

Prior to January 1, 2006, we accounted for our stock plans using the intrinsic value method under Accounting Principles Board ("APB") No. 25, *Accounting for Stock Issued to Employees* . Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment* , which requires the measurement and recognition of compensation expense for all share-based payment awards to employees and directors based on estimated fair values. We elected to adopt the modified prospective application method. Accordingly, 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 year ended December 31, 2006 was $1.3 million. At December 31, 2006, there was $946,844 of total unrecognized compensation cost, related to unvested stock options, which we expect to recognize over a weighted-average period of one year.

Charge for Acquired In-Process Research and Development.

Operating results for the year ended December 31, 2005 included a $3.3 million non-cash charge related to the write-off of acquired in-process research and development ("IPR&D") resulting from the Inovio AS acquisition in January. The amount expended for IPR&D represents the estimated fair value of purchased in-process technology for projects that, as of the acquisition date, had not reached technological feasibility and had no alternative future use. There were no charges resulting from any acquisitions during the same period in 2006.

Interest and Other Income

The $792,000 increase in interest and other income was primarily due to a larger cash and short-term investments balance and higher average interest rate. See Item 7A for further discussion of the impact of changes in interest rates on our statements of operations and our financial condition. In addition, during the fourth quarter of fiscal 2006, we adjusted by approximately $135,000 (as restated), the fair value of our common stock warrants to the fair market value thereby increasing other income.

Imputed and Declared Dividends on Preferred Stock

The holders of our Series A and B Preferred Stock were entitled to receive an annual dividend at the rate of 6%, payable quarterly, through September 30, 2006. 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 we may have elected to pay the dividends to the holders in common stock. As part of this dividend to holders of Series A and B Preferred Stock, we issued a total of 2,871 common shares valued at $7,693, and paid $15,140 in cash during 2006. We issued a total of 55,518 common shares valued at $179,956 and paid $60,235 in cash during 2005. There were no shares of Series A or B Preferred Stock outstanding on December 31, 2006. As of December 31, 2005, 52 shares of Series A Preferred Stock and 100 shares of Series B Preferred Stock remained outstanding.

The holders of our Series C Preferred Stock are entitled to receive an annual dividend at the rate of 6%, payable quarterly, through June 30, 2007. These dividends are payable in cash unless the closing price of our common shares for the 20 trading days immediately preceding the dividend payment date is equal to or greater than the conversion price of such shares, in which event we may elect to pay the dividends to the holders in common stock. In 2006 we paid dividends to the holders of our Series C Preferred Stock in cash of $117,204 and accrued dividends of $14,571 which were converted into common shares and warrants as part of our October 2006 private placement. We paid dividends in cash of $553,694 during 2005.

During 2006, we recorded an imputed dividend charge of $1.9 million during the three months ended December 31, 2006, related to the investors who converted $1.2 million of their Series C Preferred Stock investment into 473,744 shares of our common stock as part of our October 2006 private placement. This imputed dividend charge was calculated using guidance contained in Emerging Issues Task Force ("EITF") Issue No. 00-27, *Application of Issue No. 98-5 to Certain Convertible Instruments* . As part of this private placement, these investors received 304,450 additional shares of our common stock, as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. Under EITF Issue No. 00-27, this incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the $1.9 million imputed dividend charge associated with this beneficial conversion.

During 2005, we recorded an imputed dividend charge of $1.9 million related to the investors who converted $3.2 million of their previous Series C Preferred Stock investment into 790,123 shares of our common stock as part of our January 2005 private placement. As part of this private placement, these investors received 319,535 additional shares of our common stock by participating, as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. This incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the $1.9 million imputed dividend charge associated with this beneficial conversion.

During 2005, we also recorded an imputed dividend charge of $8.3 million related to the investors who converted their Series B and C Preferred Stock and common stock investments into shares of common stock as part of our December 2005 private placement. As part of this private placement, these investors received 1,670,406 additional shares of our common stock by participating, as compared to the number of shares of our common stock into which their existing common or preferred stock could have been converted under the original terms of their agreements. This incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date

of the original issuance, to calculate the $8.3 million imputed dividend charge associated with this beneficial conversion.

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, 2006, we had net operating loss carry forwards for federal and state income tax purposes of approximately $77.0 million and $46.9 million, respectively. We also had federal and state research and development tax credits of approximately $1.3 million and $696,000, respectively. If not utilized, the net operating losses and credits will continue to expire in 2007 through 2025. 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. The annual limitation could result in the expiration of our net operating losses and credit carry forwards before they otherwise could be used.

Liquidity and Capital Resources

During the last eight years, our primary uses of cash have been to finance research and development activities including clinical trial activities related to DNA vaccines and immunotherapy and our SECTA program. Since inception, we have satisfied our cash requirements principally from proceeds from the sale of equity securities.

Recent Sales of Equity Securities

In May 2007, we completed a registered equity financing wherein we issued and sold 4,595,094 shares of our common stock for $3.52 per share, resulting in aggregate cash proceeds of $16.2 million, prior to offering expenses of $110,313.

In October 2006, we completed a registered equity financing with foreign investors, wherein we issued and sold 4,074,067 shares of our common stock for $2.43 per share, resulting in aggregate cash proceeds of $9.9 million prior to offering expenses of $1.2 million. In addition, we issued warrants to purchase 1,425,919 shares of our common stock. In connection with this offering, certain holders of our previously issued Series C Preferred Stock exchanged 115.12 shares of their outstanding Series C Preferred Stock and accrued dividends thereon for $14,571 for 479,722 restricted shares of our common stock and warrants to purchase 167,902 restricted shares of our common stock. All warrants issued in the registered offering and the preferred exchange transaction have a term of five years and are exercisable at $2.87 per share.

In October 2006, Inovio Asia Pte. Ltd. ("IAPL"), our subsidiary organized in Singapore, completed a private placement, issuing and selling 2,201,644 of its ordinary shares at $2.43 per share for cash in the amount of $5.3 million. These ordinary shares were exchanged in January 2007 for 2,201,644 restricted shares of our common stock and five-year warrants to purchase up to 770,573 restricted shares of common stock at an exercise price of $2.87 per share.

On December 30, 2005, we completed a private placement of an aggregate of $15.8 million in gross cash proceeds through the sale of our common stock to institutional and accredited investors that included Merck and Vical, two of our strategic partners. At the closing, we issued to the investors an aggregate of 9,892,735 shares of common stock and warrants to purchase an aggregate of 3,462,451 shares of common stock, and received in exchange (1) gross cash proceeds of $15.8 million; (2) an aggregate of 734 shares of outstanding Series A, B and C Cumulative Convertible Preferred Stock; and (3) 1,142,593 shares of our outstanding common stock. In addition, we issued to the investors five-year warrants to purchase 35% of the number of shares of common stock they acquired in the offering at an exercise price of approximately $2.93 per share.

In January 2005, we completed a private placement to accredited investors whereby we sold 1,540,123 shares of our common stock at a purchase price of $4.05 per share and issued warrants to purchase 508,240 shares of our common stock at an exercise price of $5.50 per share, which resulted in aggregate cash proceeds of $3.0 million. A portion of this private placement involved investors who converted $3.2 million of their previous investment in our Series C Preferred Stock into 790,123 shares of the common stock issued as part of this private placement with no associated cash proceeds to us.

On January 25, 2005, we consummated the acquisition of Inovio AS. We acquired the entire share capital of Inovio AS for an aggregate purchase price of $10.9 million, which consisted of $3.0 million in cash and $7.9 million in the issuance of shares of our Series D Convertible Preferred Stock. See Note 16 to the Consolidated Financial Statements for further information regarding this acquisition.

Working Capital and Liquidity

As of December 31, 2007, we had working capital of $25.6 million, as compared to $17.6 million as of December 31, 2006 (as restated). The increase in working capital during the year ended December 31, 2007 was primarily due to the equity financing which occurred in May 2007, offset by expenditures related to our research and development and clinical trial activities, as well as various general and administrative expenses related to consultants, legal, accounting and audit, corporate development, and investor relations activities.

As of December 31, 2007, we had an accumulated deficit of $139.8 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 clinical, research and development efforts. If these activities are successful and if we receive approval from the FDA to market equipment, then even more funding will be required to market and sell the equipment. The outcome of the above matters cannot be predicted at this time. We are evaluating potential partnerships as an additional way to fund operations. We will continue to rely on outside sources of financing to meet our capital needs beyond next year. We expect to fund our operations through the fourth quarter of 2010 based on our current operating plan.

Our long-term capital requirements will depend on numerous factors including:

- The progress and magnitude of the research and development programs, including preclinical and clinical trials;
- The time involved in obtaining regulatory approvals;
- The cost involved in filing and maintaining patent claims;
- Competitor and market conditions;
- The ability to establish and maintain collaborative arrangements;
- The ability to obtain grants to finance research and development projects; and
- The cost of manufacturing scale-up and the cost of commercialization activities and arrangements.

The ability to generate substantial funding to continue research and development activities, preclinical and clinical studies and clinical trials and manufacturing, scale-up, and selling, general, and administrative activities is subject to a number of risks and uncertainties and will depend on numerous factors including:

- The ability to raise funds in the future through public or private financings, collaborative arrangements, grant awards or from other sources;

- Our potential to obtain equity investments, collaborative arrangements, license agreements or development or other funding programs in exchange for manufacturing, marketing, distribution or other rights to products developed by us; and

- The ability to maintain existing collaborative arrangements.

We cannot guarantee that additional funding will be available when needed or on favorable terms. If it is not, we will be required to scale back our research and development programs, preclinical studies and clinical trials, and selling, general, and administrative activities, or otherwise reduce or cease operations and our business and financial results and condition would be materially adversely affected.

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

As of December 31, 2007, we did not have any material long-term debt or other known contractual obligations, except for the operating lease for our facility, which expires in February 2010, and operating leases for copiers, which expire in 2008 through 2011.

We are contractually obligated to make the following operating lease payments as of December 31, 2007:

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	$ 1,139,632	$ 508,907	$ 625,085	$ 5,640	$ —

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Market risk represents the risk of loss that may impact our 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 interest rates and conditions in the credit markets. 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.

All of our investment securities are classified as available-for-sale and therefore reported on the balance sheet at market value. Our investment securities consist of high-grade auction rate securities, corporate debt securities and government agency securities. As of December 31, 2007, our short-term investments included $14.1 million of high-grade (AAA rated) auction rate securities issued primarily by municipalities. Our auction rate securities are debt instruments with a long-term maturity and with an interest rate that is reset in short intervals through auctions. The recent conditions in the global credit markets have prevented some investors from liquidating their holdings of auction rate securities because the amount of securities submitted for sale has exceeded the amount of purchase orders for such securities. If there is insufficient demand for the securities at the time of an auction, the auction may not be completed and the interest rates may be reset to predetermined higher rates. When auctions for these securities fail, the investments may not be readily convertible to cash until a future auction of these investments is successful or they are redeemed or mature. If the credit ratings of the security issuers deteriorate and any decline in market value is determined to be other-than-temporary, we would be required to adjust the carrying value of the investment through an impairment charge. To date, we have not recorded any realized gains or losses on our investment portfolio or recognized any significant unrealized gains or losses on investments.

In early March 2008 we were informed that there was insufficient demand at auctions for six of our high-grade auction rate securities, representing approximately $13.6 million. As a result, these affected securities are currently not liquid and the interest rates have been reset to the predetermined higher rates.

In the event we need to access the funds that are in an illiquid state, we will not be able to do so without the possible loss of principal, until a future auction for these investments is successful or they are redeemed by the issuer or they mature. At this time, management has not obtained sufficient evidence to conclude that these investments are impaired or that they will not be settled in the short term, although the market for these investments is presently uncertain. If we are unable to sell these securities in the market or they are not redeemed, then we may be required to hold them to maturity. We will continue to monitor and evaluate these investments on an ongoing basis for impairment or for a short term to a long term reclassification.

Foreign Currency Risk

We have operated primarily in the United States and most transactions in the fiscal year ended December 31, 2007, have been made in U.S. dollars. Accordingly, we have not had any material exposure to foreign currency rate fluctuations, nor do we have any foreign currency hedging instruments in place.

We have conducted clinical trials in Europe in conjunction with several CROs. While invoices from these CROs relating to work done on our European 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 the CROs have assisted us in conducting these clinical trials.

In September 2006 we incorporated Inovio Asia Pte. Ltd. ("IAPL"), a company in the Republic of Singapore, and in January 2005 we acquired Inovio AS, a Norwegian company. Certain transactions related to our Company and these subsidiaries are denominated primarily in foreign currencies, including Euros, British Pounds, Canadian Dollars, Norwegian Kroner, Swedish Krona, and Singapore Dollars. 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.

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 2008.

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.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2007, 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

The restatement of our consolidated financial statements contained in this Form 10-K for the year ended December 31, 2006 and the interim periods ending September 30, 2007, do not constitute a lack of internal control over financial reporting, but are based upon our interpretation of EITF Issue 00-19, "Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock". We originally classified the registered warrants issued in two separate transactions as equity, however after discussions with the staff of the SEC regarding the legal and accounting principles applicable to the facts and circumstances surrounding the issuance of these registered warrants, management determined that the warrants should be reclassified as a liability. The reclassification was based 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 based upon the current volatility of our stock. In the opinion of our Chief Executive Officer and Chief Financial Officer, the Company's interpretation and application of EITF Issue 00-19 resulting in restatement of previously issued consolidated financial statements does not constitute ineffective internal control over financial reporting. We have restated our Balance Sheets, Statements of Operations, Statements of Cash Flows and notes thereto for the periods indicated, but in doing so, do not conclude ineffective internal control over financial reporting exists.

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, 2007, 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. Based on the assessment, management determined that we maintained effective internal control over financial reporting as of December 31, 2007.

Ernst & Young LLP, the independent registered public accounting firm that audited our consolidated financial statements included in this Annual Report on Form 10-K, has issued an attestation report on the effectiveness of our internal control over financial reporting as of December 31, 2007. The report is included in this Item under the heading "Report of Independent Registered Public Accounting Firm."

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Inovio Biomedical Corporation

We have audited Inovio Biomedical Corporation's internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Inovio Biomedical Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying "Management's Annual Report on Internal Control Over Financial Reporting". Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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

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

In our opinion, Inovio Biomedical Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Inovio Biomedical Corporation as of December 31, 2007 and 2006, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2007 of Inovio Biomedical Corporation and our report dated March 12, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
March 12, 2008

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, 2007, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY

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 2007 fiscal year.

We have adopted a Code of Ethics for Senior Officers (the "Code of Ethics"), a copy of which was previously filed with our Annual Report on Form 10-K for the year ended December 31, 2004 as Exhibit 14.1 and which we have incorporated as Exhibit 14.1 to this Report. The Code of Ethics is available free of charge and may be requested by mail from our Investor Relations Department, Inovio Biomedical Corporation, 11494 Sorrento Valley Rd. San Diego, CA 92121-1318 or by telephone at 877-446-6846 (877-4-INOVIO).

We intend to satisfy the disclosure requirements under the Securities Exchange Act of 1934, as amended, regarding any amendment to, or a waiver from, our Code of Ethics by posting such information on our web site at *www.inovio.com* .

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 2007 fiscal year.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

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 2007 fiscal year.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

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 2007 fiscal year.

ITEM 14. PRINCIPAL ACCOUNTANT 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 2007 fiscal year.

PART IV

ITEM 15. EXHIBITS AND 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	Plan of Reorganization (incorporated by reference to Exhibit 2.1 of the registrant's Registration Statement on Form S-4, as amended (File No. 333-56978), filed on April 5, 2001).
3.1(a)	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 of 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	Amended and Restated Bylaws, as amended through November 30, 2007 (incorporated by reference to Exhibit 3.2 of the registrant's Form 8-K filed on December 6, 2007).
3.3	Certificate of Designations, Rights and Preferences of Series A Cumulative Convertible Preferred Stock (incorporated by reference to Exhibit 3.3 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).
3.4	Certificate of Designations, Rights and Preferences of Series B Cumulative Convertible Preferred Stock (incorporated by reference to Exhibit 3.4 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).
3.5	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).
3.6	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).
3.7	Certificate of Designations, Rights and Preferences of Series D Convertible Preferred Stock of Registrant (incorporated by reference to Exhibit 3.1 of the registrant's Current Report on Form 8-K filed on January 31, 2005).

4.1	Amended and Restated Stockholders Rights Agreement dated June 20, 1997 by and between the Registrant and Computershare Trust Company of Canada, as amended on March 25, 2003 (incorporated by reference to Exhibit A to the registrant's Definitive Proxy Statement filed on April 28, 2003).
4.2†	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).

4.3† 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).

4.4† 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).

4.5† 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).

4.6 Investors Rights Agreement, dated July 14, 2003, between the Registrant and the Purchasers listed on Schedule 1 thereto (incorporated by reference to Exhibit 4.2 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.7 Form of Series A Common Stock Purchase Warrant, dated July 14, 2003, between the registrant and the purchasers listed on Schedule 1 of Purchase Agreement (Exhibit 10.3 herein) (incorporated by reference to Exhibit 4.3 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.8 Form of Series B Common Stock Purchase Warrant, dated July 14, 2003, between the registrant and the purchasers listed on Schedule 1 of Purchase Agreement (Exhibit 10.3 herein) (incorporated by reference to Exhibit 4.4 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.9 Placement Agent Series A Common Stock Purchase Warrant, dated July 14, 2003, between the registrant and SCO Securities LLC (incorporated by reference to Exhibit 4.5 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.10 Placement Agent Series B Common Stock Purchase Warrant, dated July 14, 2003, between the registrant and SCO Securities LLC (incorporated by reference to Exhibit 4.6 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.11 Specimen common stock certificate (incorporated by reference to Exhibit 4.8 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

4.12 Preferred Stock and Warrant Purchase Agreement dated as of May 10, 2004 by and between the registrant and the purchasers indicated on the schedule thereto (incorporated by reference to Exhibit 4.1 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).

4.13 Investor Rights Agreement dated as of May 10, 2004 by and between the registrant and the purchasers indicated on the schedule thereto (incorporated by reference to Exhibit4.2 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).

4.14 Form of Series C Common Stock Purchase Warrant dated as of May 10, 2004 by and between the registrant and the purchasers indicated on the schedule thereto (incorporated by reference to Exhibit 4.3 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).

4.15 Form of Placement Agent Common Stock Purchase Warrant dated as of May 20, 2004 by and between the registrant and each of SCO Capital Partners LLC, Jeffery B. Davis, Preston Tsao, Daniel DiPietro and Mark Alvino (incorporated by reference to Exhibit 4.4 of the registrant's Registration Statement on Form S-3 filed on June 21, 2004).

4.16 Warrant to Purchase Common Stock, dated December 6, 2004 by and between the registrant and Collins Development Company, Arlin Miller Multiples, Roger R. and Sally J. Post, Tatiana Lansche and Kent M. Scudder (incorporated by reference to Exhibit 4.16 of the registrant's Annual Report of Form 10-K for the year ended December 31, 2004, filed on March 15, 2005).

4.17 Registration Rights Agreement dated as of January 10, 2005 by and among the Registrant and certain investors indicated on the schedule thereto (incorporated by reference to Exhibit 4.2 of the registrant's Current Report on Form 8-K filed on January 13, 2005).

4.18 Form of Warrants issued by the registrant on January 10, 2005, including a schedule of warrant holders (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed on January 13, 2005).

4.19 Registration Rights Agreement dated as of January 25, 2005 by and among the registrant and the shareholders of Inovio AS (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed on January 31, 2005).

4.20 Form of Warrants (incorporated by reference to Exhibit 99.2 to registrant's Form 8-K filed on January 6, 2006).

4.21 Registration Rights Agreement dated December 30, 2005, by and among the registrant and the investors named on the signature pages thereto (incorporated by reference to Exhibit 99.3 to registrant's Form 8-K filed with the Securities and Exchange Commission on January 6, 2006).

4.22 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).

4.23 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).

4.24 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).

10.1* Amended 2000 Stock Option Plan, as amended by the Board of Directors through March 6, 2006 with approvals by stockholders through May 5, 2006 (incorporated by reference to Exhibit 4.1 of the registrant's Registration Statement on Form S-8 filed on July 28, 2006).

10.2* Forms of Incentive and Nonstatutory Stock Option Agreements used in connection with the 2000 Stock Option Plan (incorporated by reference to Exhibit 10.7 of the registrant's Registration Statement on Form S-4/A (File No. 333-58168) filed on April 5, 2001).

10.3 Preferred Stock and Warrant Purchase Agreement, dated July 14, 2003, between the registrant and the purchasers listed on Schedule 1 thereto (incorporated by reference to Exhibit 4.1 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

10.5* Employment Agreement dated November 15, 2001 by and between the registrant and James L. Heppell (incorporated by reference to Exhibit 10.24 of the registrant's Form 10-K for the year ending December 31, 2001 filed on April 1, 2002).

10.6† 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).

10.7 Asset Purchase Agreement by and among the Registrant, Genetronics, Inc., a subsidiary of the Registrant, and Harvard Bioscience, Inc. dated December 24, 2002 (incorporated by reference to Exhibit A to the registrant's Definitive Proxy Statement filed on January 7, 2003).

10.8(a) Financial Consultant Agreement, dated October 3, 2002, between the registrant and Catalyst Capital, LLC (incorporated by reference to Exhibit 4.7 of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

(b) Amendment to Financial Consultant Agreement, dated July 14, 2003, between the registrant and Catalyst Capital, LLC (incorporated by reference to Exhibit 4.7(a) of the registrant's Registration Statement on Form S-3 (File No. 333-108752) filed on September 12, 2003).

10.9 Securities Purchase Agreement dated as of January 10, 2005 by and among the registrant and certain investors indicated on the schedule thereto (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on January 13, 2005).

10.10 Form of Promissory Notes issued by the registrant on January 10, 2005, including a schedule of note holders (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed on January 13, 2005).

10.11† 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).

10.12 Escrow Agreement dated as of January 10, 2005 by and among the registrant, certain investors indicated on the schedule thereto and Computershare Trust Company of Canada (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed on January 13, 2005).

10.13 Stock Purchase Agreement dated January 25, 2005 by and among the registrant, Inovio AS and the Shareholders of Inovio AS (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed on January 31, 2005).

10.14 Lease Agreement by and between the registrant and Nexus Sorrento Glen LLC dated August 26, 1999 (incorporated by reference to Exhibit 10.15 of the registrant's Registration Statement on Form S-1, as amended (File No. 333-88427), filed on October 5, 1999).

10.15 Lease Agreement by and between the registrant and Sorrento Centre Tenancy in Common dated November 29, 2004 (incorporated by reference to Exhibit 10.16 of the registrant's Annual Report of Form 10-K for the year ended December 31, 2004, filed on March 15, 2005).

10.16 Lease Amendment #3 by and between the registrant and Nexus Sorrento Glen LLC dated January 21, 2005 (incorporated by reference to Exhibit 10.17 of the registrant's Annual Report of Form 10-K for the year ended December 31, 2004, filed on March 15, 2005).

10.17 Letter agreement dated September 30, 2005 between the registrant and Verdas extending due date of Promissory Note (incorporated by reference to Exhibit 99.1 of the registrant's Report of Form 8-K, filed on October 6, 2005).

10.18 Letter agreement dated September 30, 2005 between the registrant and Baystar extending due date of Promissory Note (incorporated by reference to Exhibit 99.2 of the registrant's Report of Form 8-K, filed on October 6, 2005).

10.19 Letter agreement dated November 30, 2005 between registrant and Verdas extending due date of the Promissory Note (incorporated by reference to Exhibit 99.1 of the registrant's Report of Form 8-K, filed on December 6, 2005).

10.20 Letter agreement dated November 30, 2005 between registrant and Baystar extending due date of the Promissory Note (incorporated by reference to Exhibit 99.2 of the registrant's Report of Form 8-K, filed on December 6, 2005).

10.21 Securities Purchase Agreement dated as of December 16, 2005, among registrant and each purchaser identified on the signature pages thereto (incorporated by reference to Exhibit 99.1 of the registrant's Report of Form 8-K, filed on January 6, 2006).

10.22 License Agreement dated September 15, 2006 between registrant and Inovio Asia Pte. Ltd. (incorporated by referenced to Exhibit 10.1 to registrant's Quarterly Report on Form 10-Q filed on November 9, 2006).

10.23 Securities Purchase Agreement dated September 15, 2006 between registrant and purchasers named therein (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed on September 20, 2006).

10.24 Amendment to Securities Purchase Agreement, amending the Securities Purchase Agreement filed as Exhibit 10.27 (incorporated by reference to Exhibit 4.3 of the registrant's Current Report on Form 8-K filed on October 16, 2006).

10.25 Securities Purchase and Exchange Agreement between registrant and Inovio Asia Pte. Ltd. and the purchasers named therein, dated September 15, 2006 (incorporated by referenced to Exhibit 10.2 to registrant's Quarterly Report on Form 10-Q filed on November 9, 2006).

10.26 Preferred Exchange Agreement dated September 15, 2006 between registrant and certain holders of Series C Preferred Stock (incorporated by referenced to Exhibit 4.4 of the registrant's Registration Statement on Form S-3, filed January 19, 2007).

10.27 Securities Purchase Agreement dated May 14, 2007 relating to the Direct Financing between registrant and purchasers named therein (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K, filed May 16, 2007).

10.28 Letter Agreement Dated August 3, 2007 between Registrant and Asia Life Sciences Venture Consulting Inc. (incorporated by reference to Exhibit 4.1 of the registrant's Current Report on Form 8-K filed August 6, 2007).

10.29 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).

10.30 Employment Agreement dated August 31, 2007 by and between the registrant and Dr. Michael Fons (incorporated by reference to Exhibit 99.2 of the registrant's Current Report on Form 8-K/A filed September 10, 2007).

14.1 Inovio Biomedical Corporation Code of Ethics for Senior Officers (incorporated by reference to Exhibit 14.1 of the registrant's Annual Report on Form 10-K for the year ended December 31, 2004, filed with the Securities and Exchange Commission on March 15, 2005).

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.

† 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.

* Designates management contract, compensatory plan or arrangement.

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 14, 2008.

Inovio Biomedical Corporation

By: /s/ AVTAR DHILLON

Avtar Dhillon
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Avtar Dhillon 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/ AVTAR DHILLON Avtar Dhillon	President, Chief Executive Officer (Principal Executive Officer), Director	March 14, 2008
/s/ PETER KIES Peter Kies	Chief Financial Officer (Principal Accounting Officer and Principal Financial Officer)	March 14, 2008
/s/ JAMES L. HEPPELL James L. Heppell	Director	March 14, 2008
/s/ RIAZ BANDALI Riaz Bandali	Director	March 14, 2008
/s/ TAZDIN ESMAIL Tazdin Esmail	Director	March 14, 2008
/s/ SIMON X. BENITO Simon X. Benito	Director	March 14, 2008
/s/ ROBERT W. RIEDER Robert W. Rieder	Director	March 14, 2008
/s/ STEPHEN RIETIKER Stephen Rietiker	Director	March 14, 2008

INOVIO BIOMEDICAL CORPORATION

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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, 2007 and 2006 (as restated), and the related consolidated statements of operations, stockholders' equity and cash flows for each of the years ended December 31, 2007, December 31, 2006 (as restated) and December 31, 2005. 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Inovio Biomedical Corporation at December 31, 2007 and 2006 (as restated), and the consolidated results of its operations and its cash flows for the years ended December 31, 2007, December 31, 2006 (as restated) and December 31, 2005, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 3 to the consolidated financial statements, effective January 1, 2006, the Company changed its method of accounting for share-based payments in accordance with Statement of Financial Accounting Standards ("SFAS") No. 123 (revised 2004), "Share-Based Payment."

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Inovio Biomedical Corporation's internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 12, 2008 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
March 12, 2008

Inovio Biomedical Corporation

CONSOLIDATED BALANCE SHEETS

	December 31, 2007	December 31, 2006 As restated(1)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 10,250,929	$ 8,321,606
Short-term investments	16,999,600	14,700,000
Accounts receivable	1,139,966	326,071
Prepaid expenses and other current assets	613,656	1,124,262
Total current assets	29,004,151	24,471,939
Fixed assets, net	401,727	390,789
Intangible assets, net	6,186,430	6,514,293
Goodwill	3,900,713	4,290,594
Other assets	282,000	282,000
Total assets	$ 39,775,021	$ 35,949,615
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 1,807,305	$ 2,009,972
Accrued clinical trial expenses	573,767	675,330
Common stock warrants	367,071	3,540,692
Deferred revenue	544,410	583,147
Deferred rent	61,946	50,581
Total current liabilities	3,354,499	6,859,722
Deferred revenue, net of current portion	4,335,806	4,396,875
Deferred rent, net of current portion	99,712	177,909
Deferred tax liabilities	950,250	1,013,250
Total liabilities	8,740,267	12,447,756
Minority Interest	—	5,349,995
Stockholders' equity:		
Preferred stock—par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 113,382 and 1,028,069 at December 31, 2007 and 2006, respectively	113	1,028
Common stock—par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 43,870,989 and 43,814,739 at December 31, 2007 and 35,639,521 and 35,639,521 at December 31, 2006, respectively	43,815	35,639
Additional paid-in capital	170,730,621	146,783,730
Receivables from stockholders	(50,000)	(86,030)
Accumulated deficit	(139,847,326)	(128,619,548)
Accumulated other comprehensive income	157,531	37,045
Total stockholders' equity	31,034,754	18,151,864
Total liabilities, minority interest and stockholders' equity	$ 39,775,021	$ 35,949,615

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 to reflect certain accounting reclassifications, as described more fully in Note 2.

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

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31, 2007	Year ended December 31, 2006	Year ended December 31, 2005
		As restated(1)	
Revenue:			
License fee and milestone payments	$ 2,793,478	$ 1,337,105	$ 2,563,283
Revenue under collaborative research and development arrangements	1,854,303	962,207	1,492,145
Grants and miscellaneous revenue	159,948	1,168,866	1,411,825
Total revenue	4,807,729	3,468,178	5,467,253
Operating expenses:			
Research and development	9,625,947	8,509,785	11,454,773
General and administrative	11,080,202	8,304,587	6,187,450
Charge for acquired in-process research and development	—	—	3,332,000
Total operating expenses	20,706,149	16,814,372	20,974,223
Loss from operations	(15,898,420)	(13,346,194)	(15,506,970)
Other income	3,421,580	320,706	2,443
Interest income	1,272,397	681,546	207,675
Net loss	(11,204,443)	(12,343,942)	(15,296,852)
Imputed dividends on common stock	—	—	(8,329,112)
Imputed and declared dividends on preferred stock	(23,335)	(2,005,664)	(2,736,658)
Net loss attributable to common stockholders	$ (11,227,778)	$ (14,349,606)	$ (26,362,622)
Amounts per common share—basic and diluted:			
Net loss	$ (0.27)	$ (0.40)	$ (0.81)
Imputed dividends on common stock	—	—	(0.44)
Imputed and declared dividends on preferred stock	—	(0.06)	(0.14)
Net loss attributable to common stockholders	$ (0.27)	$ (0.46)	$ (1.39)
Weighted average number of common shares outstanding—basic and diluted	41,493,412	31,511,683	19,009,189

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 to reflect certain accounting reclassifications, as described more fully in Note 2.

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

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Preferred stock		Common stock						
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Receivables from stockholders	Accumulated deficit	Accumulated other comprehensive (loss) income	Total stockholders' equity
					As restated(1)		As restated(1)	As restated(1)	As restated(1)
Balance at December 31, 2004	1,441	$ 2	18,420,427	$ 18,420	$ 103,438,408	$ —	$ (87,907,320)	$ —	$ 15,549,510
Exercise of stock options for cash	—	—	34,980	35	59,441	—	—	—	59,476
Exercise of warrants for cash	—	—	136,250	136	256,014	—	—	—	256,150
Cashless exercise of warrants	—	—	43,130	43	(43)	—	—	—	—
Issuance of common stock for cash, net of issuance costs of $997,682	—	—	6,834,408	6,835	15,398,064	—	—	—	15,404,899
Issuance of Series D preferred stock for acquisition of Inovio AS	1,966,292	1,966	—	—	7,902,528	—	—	—	7,904,494
Conversions of preferred stock to common stock	(405,309)	(406)	3,944,043	3,944	(3,538)	—	—	—	—
Warrants issued for services	—	—	—	—	120,913	—	—	—	120,913
Share-based compensation	—	—	—	—	116,382	—	—	—	116,382
Imputed and declared dividends	—	—	55,518	56	10,451,785	—	—	—	10,451,841
Comprehensive income:									
Net loss attributable to common stockholders	—	—	—	—	—	—	(26,362,622)	—	(26,362,622)
Foreign currency translation loss	—	—	—	—	—	—	—	(30,295)	(30,295)
Total comprehensive income	—	—	—	—	—	—	—	—	(26,392,917)
Balance at December 31, 2005	1,562,424	1,562	29,468,756	29,469	137,739,954	—	(114,269,942)	(30,295)	23,470,748
Exercise of stock options for cash	—	—	148,629	148	251,280	—	—	—	251,428
Issuance of common stock for patents and other assets	—	—	86,956	87	128,835	—	—	—	128,922
Issuance of stockholder note receivable	—	—	—	—	86,030	(86,030)	—	—	—
Issuance of common stock for cash, net of issuance costs of $1,161,070, as restated(1)	—	—	4,074,067	4,074	5,058,931	—	—	—	5,063,005
Issuance of common stock for consulting services	—	—	49,261	49	99,951	—	—	—	100,000
Conversions of preferred stock to common stock	(534,355)	(534)	1,763,981	1,764	(1,230)	—	—	—	—
Share-based compensation	—	—	45,000	45	1,546,662	—	—	—	1,546,707
Imputed and declared dividends	—	—	2,871	3	1,873,317	—	—	—	1,873,320
Comprehensive income:									
Net loss attributable to common stockholders, as restated(1)	—	—	—	—	—	—	(14,349,606)	—	(14,349,606)
Foreign currency translation gain	—	—	—	—	—	—	—	67,340	67,340
Total comprehensive income	—	—	—	—	—	—	—	—	(14,282,266)
Balance at December 31, 2006, as restated(1)	1,028,069	$ 1,028	35,639,521	$ 35,639	$ 146,783,730	$ (86,030)	$ (128,619,548)	$ 37,045	$ 18,151,864

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 to reflect certain accounting reclassifications, as described more fully in Note 2.

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

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (Continued)

	Preferred Stock		Common Stock						
	Number of shares	Amount	Number of shares	Amount	Additional paid-in capital	Receivables from stockholders	Accumulated deficit	Accumulated other comprehensive (loss) income	Total stockholders' equity
					As restated(1)		As restated(1)	As restated(1)	As restated(1)
Balance at December 31, 2006, as restated(1)	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 shareholder 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
Share-based compensation	—	—	18,750	19	1,702,790	—	—	—	1,702,809
Comprehensive income:									
Net loss attributable to common stockholders	—	—	—	—	—	—	(11,227,778)	—	(11,227,778)
Unrealized gain (loss) on investments	—	—	—	—	—	—	—	9,945	9,945
Foreign currency translation gain	—	—	—	—	—	—	—	110,541	110,541
Total comprehensive income	—	—	—	—	—	—	—	—	(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

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 to reflect certain accounting reclassifications as described more fully in Note 2.

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

Inovio Biomedical Corporation

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31, 2007	Year ended December 31, 2006	Year ended December 31, 2005
		As restated(1)	
Cash flows from operating activities:			
Net loss	$ (11,204,443)	$ (12,343,942)	$ (15,296,852)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation	185,683	206,743	147,129
Amortization of intangible assets	831,958	767,900	709,938
Change in value of common stock warrants	(3,173,621)	(135,182)	—
Stock-based compensation	1,702,809	1,546,707	116,382
Compensation for services paid in common stock	611,026	100,000	—
Amortization of deferred tax liabilities	(63,000)	(63,000)	(57,750)
Charge for acquired in-process research and development	—	—	3,332,000
Deferred rent	(66,832)	(57,385)	(29,520)
Realization of loss carryforwards	389,881	—	—
Revenue from conversion of note payable	—	(10,810)	—
Accretion of discount on available-for-sale securities	(86,670)	—	—
Changes in operating assets and liabilities:			
Accounts receivable	(726,884)	(57,631)	152,471
Prepaid expenses and other	507,230	(400,417)	(150,644)
Accounts payable and accrued expenses	(321,080)	(233,894)	(1,259,924)
Deferred revenue	(99,806)	3,637,763	28,747
Net cash used in operating activities	(11,513,749)	(7,043,148)	(12,308,023)
Cash flows from investing activities:			
Purchase of available-for-sale securities	(18,602,985)	(24,000,000)	—
Proceeds from sales of available-for-sale securities	16,400,000	9,300,000	—
Acquisition of business, net of cash acquired	—	—	(2,341,028)
Purchases of capital assets	(141,635)	(46,744)	(286,907)
Capitalization of patents and other assets	(504,095)	(1,318,431)	(447,764)
Net cash used in investing activities	(2,848,715)	(16,065,175)	(3,075,699)
Cash flows from financing activities:			
Proceeds from issuance of common stock, net of issuance costs	16,290,322	8,975,735	15,304,716
Repayment of stockholder note receivable	36,030	—	—
Proceeds from issuance of shares to minority interest	—	5,349,995	—
Payment of preferred stock cash dividend	(23,335)	(132,343)	(613,929)
Net cash provided by financing activities	16,303,017	14,193,387	14,690,787
Effect of exchange rate changes on cash	(11,230)	69,975	(30,295)
Increase (decrease) in cash and cash equivalents	1,929,323	(8,844,961)	(723,230)
Cash and cash equivalents, beginning of period	8,321,606	17,166,567	17,889,797
Cash and cash equivalents, end of period	$ 10,250,929	$ 8,321,606	$ 17,166,567

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 to reflect certain accounting reclassifications, as described more fully in Note 2.

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

1. The Company

Inovio Biomedical Corporation, a Delaware corporation, organized in 2001, is a San Diego-based biomedical company focused on the development of next-generation vaccines to prevent or treat cancers and chronic infectious diseases. Such vaccines, which could potentially protect millions of people from debilitation or death from diseases without adequate treatments, may represent multi-billion dollar market opportunities. Historically, successful development of this new generation of vaccines—DNA vaccines—has been hindered by the lack of safe, efficient and cost effective DNA delivery methods capable of enabling their potency. However, our electroporation-based DNA delivery technology has shown potential in pre-clinical and clinical studies to play a pivotal role in facilitating delivery and enhancing the potency of preventive and therapeutic vaccines.

Inovio's business strategy to realize value for the company and its stockholders is as follows:

First, we have leveraged our patented technologies through licensing and collaborations, such as our licensing arrangements with Merck & Co., Inc., or Merck, Wyeth Pharmaceuticals, or Wyeth and Vical Inc., or Vical, among other research-driven biopharmaceutical companies as well as government and non-government agencies. We are licensing the use of our electroporation-based DNA delivery systems for partners to use in conjunction with their proprietary DNA vaccines or DNA-based immunotherapies. These arrangements provide us with some combination of upfront payments, development fees, milestone payments, royalties and a supply agreement. These partners are pursuing development of proprietary agents or conducting research using our technology.

Second, we are pursuing proprietary vaccine development or co-development, resulting in whole or partial ownership in promising vaccines to prevent or treat cancers and chronic infectious diseases. We currently have a collaborative commercialization agreement with Tripep AB, or Tripep, to co-develop a novel DNA hepatitis C therapeutic vaccine (HCV), for which they received approvals from the Swedish Medical Products Agency (MPA) and local ethics committees to initiate a Phase I/II clinical trial, which has now begun enrollment. We also have two undisclosed programs underway in pre-clinical studies to generate a protective immune response with electroporation mediated delivery of an antigen in relevant animal models.

We incurred a net loss attributable to common stockholders of $11.2 million for the year ended December 31, 2007. We had working capital of $25.6 million and an accumulated deficit of $139.8 million as of December 31, 2007. Our ability to continue as a going concern is dependent upon our ability to achieve profitable operations and to obtain additional capital. We will continue to rely on outside sources of financing to meet our capital needs. The outcome of these matters cannot be predicted at this time. Further, there can be no assurance, assuming we successfully raise additional funds, that we will achieve positive cash flow. If we are not able to secure additional funding, we will be required to scale back our research and development programs, preclinical studies and clinical trials, and general and administrative activities and may not be able to continue in business. These consolidated financial statements do not include any adjustments to the specific amounts and classifications of assets and liabilities, which might be necessary should we be unable to continue in business. Our consolidated financial statements as of and for the year ended December 31, 2007 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.

2. Restatement of Prior Periods Presented

We have restated our previously issued consolidated financial statements to reflect certain accounting adjustments. As disclosed in the Current Report on Form 8-K filed February 12, 2008, the staff of the Securities and Exchange Commission (the "SEC Staff") reviewed and issued comments pertaining to our Form 10-K for the year ended December 31, 2006 and the Form 10-Q for the three and nine month periods ended September 30, 2007. After substantial correspondence and discussions with the SEC Staff regarding certain comments received pertaining to the classification of registered warrants issued by us in October 2006 and August 2007, management determined that such registered warrants require reclassification from equity to liability in our consolidated financial statements for the year ended December 31, 2006 and the interim reporting periods in 2007.

In October 2006, we issued 4,074,067 registered shares of common stock and registered warrants exercisable for 1,425,919 shares of common stock for approximately $9.9 million in a registered direct financing solely involving offshore investors. In August 2007, we issued 230,000 registered shares of our common stock and registered warrants exercisable for 150,000 shares of our common stock to Asia Life Sciences Venture Consulting Inc. ("ALVC"), in consideration for identifying opportunities for the license or sale of all or part of one of our SECTA therapy programs. We originally classified the registered warrants issued in both transactions as equity, however after substantial discussions with the SEC Staff regarding the legal and accounting principles applicable to the facts and circumstances surrounding the issuance of these registered warrants, we determined that the warrants should be classified as a liability pursuant to EITF Issue 00-19, "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. If unexercised, the warrants will expire in October 2011 and August 2012, respectively.

The decision to restate our consolidated financial statements was made by management, in consultation with our independent registered public accounting firm, Ernst & Young LLP. Due to the error in the initial classification of the registered warrants, our previously issued consolidated financial statements for the fiscal year ended December 31, 2006 and the subsequent interim periods in 2007 and the related reports of Ernst & Young LLP and all earnings and similar communications issued by us since December 31, 2006 should no longer be relied upon and are restated to reflect the impact of the required reclassification of the registered warrants. The restatement resulted in the reclassification of the fair value of the registered warrants upon issuance from equity to a liability in the amounts of $3.7 million for the October 13, 2006 issuance and $232,000 for the August 3, 2007 issuance. Subsequent to the issuance, the warrants are required to be marked-to-market to their current fair value for each reporting period. The revaluation of the registered warrants at each subsequent balance sheet date resulted in a reduction in the carrying value of the liability to $3.5 million as of the year ended December 31, 2006, $3.2 million as of the quarter ended March 31, 2007, $2.5 million as of the quarter ended June 30, 3007, and $790,000 as of the quarter ended September 30, 2007. Also, the revaluation of the registered warrants at each subsequent balance sheet date is reflected in the consolidated Statements of Operations as "Other income" or "Other expense", which resulted in an increase to other income of $135,000 for the year ended December 31, 2006, of $330,000 for the quarter ended March 31, 2007, of $727,000 for the quarter ended June 30, 3007, and of $1.9 million for the quarter ended September 30, 2007. There is no effect on the consolidated Statement of Cash Flows as a result of this change as the mark-to-market adjustment would have been reflected as a non-cash charge within our consolidated Statements of Operations. The impact on the Statement of Changes in Stockholder's Equity is reflected in reduced Accumulated Deficit for the periods indicated.

2. Restatement of Prior Periods Presented (Continued)

The following quarterly data has been derived from our unaudited consolidated financial statements and, in our opinion, reflect all recurring adjustments necessary to fairly present our financial information when read in conjunction with our Consolidated Financial Statements and Notes. The following data for the year ended December 31, 2006 (as restated) has been derived from our audited consolidated financial statements and, in our opinion, reflect all recurring adjustments necessary to fairly present our financial information when read in conjunction with our Consolidated Financial Statements and Notes. This quarterly and annual information has been restated for, and as of the end of, all quarters of fiscal 2007 and the fourth quarter of fiscal 2006 from previously reported information filed on Form 10-Q and Form 10-K, as a result of the restatement of our financial results as discussed above. The results of operations for any period are not necessarily indicative of the results to be expected for any future period.

	Quarter Ended September 30, 2007 As reported	Adjustments(A)	Quarter Ended September 30, 2007 As restated
Consolidated Statement of Operations:			
Revenue:			
License fee and milestone payments	$ 136,870	$	$ 136,870
Revenue under collaborative research and development arrangements	265,970		265,970
Grants and miscellaneous revenue	83,671		83,671
Total revenue	486,511		486,511
Operating Expenses:			
Research and development	2,335,378		2,335,378
General and administrative	3,177,723		3,177,723
Total operating expenses	5,513,101		5,513,101
Loss from operations	(5,026,590)		(5,026,590)
Interest income	405,023		405,023
Other income/(expense)	576	1,926,488	1,927,064
Net loss	(4,620,991)	1,926,488	(2,694,503)
Imputed and declared dividends on preferred stock	—		—
Net loss attributable to common stockholders	$ (4,620,991)	$ 1,926,488	$ (2,694,503)
Amounts per common share—basic and diluted:			
Net loss	$ (0.11)	$ 0.05	$ (0.06)
Imputed and declared dividends on preferred stock	—	—	—
Net loss attributable to common stockholders	$ (0.11)	$ 0.05	$ (0.06)
Weighted average number of common shares—basic & diluted	43,699,683		43,699,683

(A) Marked-to-market adjustment for current fair value of warrants.

2. Restatement of Prior Periods Presented (Continued)

	Quarter Ended June 30, 2007 As reported	Adjustments(A)	Quarter Ended June 30, 2007 As restated
Consolidated Statement of Operations:			
Revenue:			
License fee and milestone payments	$ 209,265	$	$ 209,265
Revenue under collaborative research and development arrangements	286,312		286,312
Grants and miscellaneous revenue	—		—
Total revenue	495,577		495,577
Operating Expenses:			
Research and development	2,907,836		2,907,836
General and administrative	2,344,551		2,344,551
Total operating expenses	5,252,387		5,252,387
Loss from operations	(4,756,810)		(4,756,810)
Interest income	286,792		286,792
Other income/(expense)	470	726,835	727,305
Net loss	(4,469,548)	726,835	(3,742,713)
Imputed and declared dividends on preferred stock	(8,244)		(8,244)
Net loss attributable to common stockholders	$ (4,477,792)	$ 726,835	$ (3,750,957)
Amounts per common share—basic and diluted:			
Net loss	$ (0.11)	$ 0.02	$ (0.09)
Imputed and declared dividends on common & preferred stock	—	—	—
Net loss attributable to common stockholders	$ (0.11)	$ 0.02	$ (0.09)
Weighted average number of common shares—basic & diluted	40,674,947		40,674,947

(A) Marked-to-market adjustment for current fair value of warrants.

2. Restatement of Prior Periods Presented (Continued)

	Quarter Ended March 31, 2007 As reported	Adjustments(A)	Quarter Ended March 31, 2007 As restated
Consolidated Statement of Operations:			
Revenue:			
License fee and milestone payments	$ 234,489	$	$ 234,489
Revenue under collaborative research and development arrangements	247,990		247,990
Grants and miscellaneous revenue	21,423		21,423
Total revenue	503,902		503,902
Operating Expenses:			
Research and development	2,516,411		2,516,411
General and administrative	2,291,161		2,291,161
Total operating expenses	4,807,572		4,807,572
Loss from operations	(4,303,670)		(4,303,670)
Interest income	223,068		223,068
Other income/(expense)	9,786	329,519	339,305
Net loss	(4,070,816)	329,519	(3,741,297)
Imputed and declared dividends on common & preferred stock	(15,091)		(15,091)
Net loss attributable to common stockholders	$ (4,085,907)	$ 329,519	$ (3,756,388)
Amounts per common share—basic and diluted:			
Net loss	$ (0.11)	$ 0.01	$ (0.10)
Imputed and declared dividends on preferred stock	—	—	—
Net loss attributable to common stockholders	$ (0.11)	$ 0.01	$ (0.10)
Weighted average number of common shares—basic & diluted	37,694,634		37,694,634

(A) Marked-to-market adjustment for current fair value of warrants.

2. Restatement of Prior Periods Presented (Continued)

	Quarter Ended December 31, 2006 As reported	Adjustments(A)	Quarter Ended December 31, 2006 As restated
Consolidated Statement of Operations:			
Revenue:			
License fee and milestone payments	$ 810,290	$	$ 810,290
Revenue under collaborative research and development arrangements	199,489		199,489
Grants and miscellaneous revenue	521,887		521,887
Total revenue	1,531,666		1,531,666
Operating Expenses:			
Research and development	2,701,534		2,701,534
General and administrative	2, 623,888		2,623,888
Total operating expenses	5,325,422		5,325,422
Loss from operations	(3,793,756)		(3,793,756)
Interest income	230,638		230,638
Other income/(expense)	175,505	135,182	310,687
Net loss	(3,387,613)	135,182	(3,252,431)
Imputed and declared dividends on common & preferred stock	(1,867,170)		(1,867,170)
Net loss attributable to common stockholders	$ (5,254,783)	$ 135,182	$ (5,119,601)
Amounts per common share—basic and diluted			
Net loss	$ (0.10)	$ —	$ (0.10)
Imputed and declared dividends on preferred stock	(0.05)	—	(0.05)
Net loss attributable to common stockholders	$ (0.15)	$ —	$ (0.15)
Weighted average number of common shares—basic & diluted	34,902,998		34,902,998

(A) Marked-to-market adjustment for current fair value of warrants.

2. Restatement of Prior Periods Presented (Continued)

	Year Ended December 31, 2006 As reported	Adjustments(A)	Year Ended December 31, 2006 As restated
Consolidated Statement of Operations:			
Revenue:			
License fee and milestone payments	$ 1,337,105	$	$ 1,337,105
Revenue under collaborative research and development arrangements	962,207		962,207
Grants and miscellaneous revenue	1,168,866		1,168,866
Total revenue	3,468,178		3,468,178
Operating Expenses:			
Research and development	8,509,785		8,509,785
General and administrative	8,304,587		8,304,587
Total operating expenses	16,814,372		16,814,372
Loss from operations	(13,346,194)		(13,346,194)
Interest income	681,546		681,546
Other income/(expense)	185,524	135,182	320,706
Net loss	(12,479,124)	135,182	(12,343,942)
Imputed and declared dividends on preferred stock	(2,005,664)		(2,005,664)
Net loss attributable to common stockholders	$ (14,484,788)	$ 135,182	$ (14,349,606)
Amounts per common share—basic and diluted:			
Net loss	$ (0.40)	$ —	$ (0.40)
Imputed and declared dividends on preferred stock	(0.06)	—	(0.06)
Net loss attributable to common stockholders	$ (0.46)	$ —	$ (0.46)
Weighted average number of common shares—basic & diluted	31,511,683		31,511,683

(A) Marked-to-market adjustment for current fair value of warrants.

2. Restatement of Prior Periods Presented (Continued)

CONSOLIDATED BALANCE SHEET

	September 30, 2007 As reported	Adjustments(B)	September 30, 2007 As restated
ASSETS			
Current assets:			
Cash and cash equivalents	$ 7,086,719	$	$ 7,086,719
Short-term investments	21,362,700		21,362,700
Accounts receivable	292,643		292,643
Prepaid expenses and other current assets	878,917		878,917
Total current assets	29,620,979		29,620,979
Fixed assets, net	370,972		370,972
Intangible assets, net	6,300,705		6,300,705
Goodwill	4,290,594		4,290,594
Other assets	282,000		282,000
Total assets	$ 40,865,250	$ —	$ 40,865,250
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable and accrued expenses	$ 1,894,086	$	$ 1,894,086
Accrued clinical trial expenses	653,321		653,321
Common stock warrants	—	789,739	789,739
Deferred revenue	496,566		496,566
Deferred rent	61,947		61,947
Total current liabilities	3,105,920	789,739	3, 895,659
Deferred revenue, net of current portion	4,146,829		4,146,829
Deferred rent, net of current portion	115,198		115,198
Deferred tax liabilities	966,000		966,000
Total liabilities	8,333,947	789,739	9,123,686
Minority Interest	—		—
Stockholders' equity:			
Preferred stock—par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 113,382 and 1,028,069 at September 30, 2007 and December 31, 2006, respectively	113		113
Common stock—par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 43,859,739 and 43,803,489 at September 30, 2007 and 35,639,521 and 35,639,521 at December 31, 2006, respectively	43,803		43,803
Additional paid-in capital	174,309,742	(3,907,763)	170,401,979
Receivables from stockholders	(50,000)		(50,000)
Accumulated deficit	(141,939,420)	3,118,024	(138,821,396)
Accumulated other comprehensive income	167,065		167,065
Total stockholders' equity	32,531,303	(789,739)	31,741,564
Total liabilities, minority interest and stockholders' equity	$ 40,865,250	$ —	$ 40,865,250

(B) Reclassification of warrants from equity to liability.

2. Restatement of Prior Periods Presented (Continued)

CONSOLIDATED BALANCE SHEET

	June 30, 2007 As reported	Adjustments(B)	June 30, 2007 As restated
ASSETS			
Current assets:			
Cash and cash equivalents	$ 7,785,789	$	$ 7,785,789
Short-term investments	23,811,160		23,811,160
Accounts receivable	362,522		362,522
Prepaid expenses and other current assets	1,025,935		1,025,935
Total current assets	32,985,406		32,985,406
Fixed assets, net	385,916		385,916
Intangible assets, net	6,409,122		6,409,122
Goodwill	4,290,594		4,290,594
Other assets	282,000		282,000
Total assets	$ 44,353,038	$ —	$ 44,353,038
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable and accrued expenses	$ 1,649,413	$	$ 1,649,413
Accrued clinical trial expenses	775,796		775,796
Common stock warrants	—	2,484,338	2,484,338
Deferred revenue	478,262		478,262
Deferred rent	69,447		69,447
Total current liabilities	2,972,918	2,484,338	5,457,256
Deferred revenue, net of current portion	4,237,021		4,237,021
Deferred rent, net of current portion	143,185		143,185
Deferred tax liabilities	981,750		981,750
Total liabilities	8,334,874	2,484,338	10,819,212
Minority Interest	—		—
Stockholders' equity:			
Preferred stock—par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 113,397 and 1,028,069 at June 30, 2007 and December 31, 2006, respectively	113		113
Common stock—par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 43,605,184 and 43,548,934,739 at June 30, 2007 and 35,639,521 and 35,639,521 at December 31, 2006, respectively	43,549		43,549
Additional paid-in capital	173,226,341	(3,675,874)	169,550,467
Receivables from stockholders	(50,000)		(50,000)
Accumulated deficit	(137,318,429)	1,191,536	(136,126,893)
Accumulated other comprehensive income	116,590		116,590
Total stockholders' equity	36,018,164	(2,484,338)	33,533,826
Total liabilities, minority interest and stockholders' equity	$ 44,353,038	$ —	$ 44,353,038

(B) Reclassification of warrants from equity to liability.

2. Restatement of Prior Periods Presented (Continued)

CONSOLIDATED BALANCE SHEET

	March 31, 2007 As reported	Adjustments(B)	March 31, 2007 As restated
ASSETS			
Current assets:			
Cash and cash equivalents	$ 6,333,607	$	$ 6,333,607
Short-term investments	12,700,000		12,700,000
Accounts receivable	248,738		248,738
Prepaid expenses and other current assets	1,147,448		1,147,448
Total current assets	20,429,793		20,429,793
Fixed assets, net	414,267		414,267
Intangible assets, net	6,502,289		6,502,289
Goodwill	4,290,594		4,290,594
Other assets	282,000		282,000
Total assets	$ 31,918,943	$ —	$ 31,918,943
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable and accrued expenses	$ 1,475,453	$	$ 1,475,453
Accrued clinical trial expenses	720,346		720,346
Common stock warrants	—	3,211,173	3,211,173
Deferred revenue	439,814		439,814
Deferred rent	69,447		69,447
Total current liabilities	2,705,060	3,211,173	5,916,233
Deferred revenue, net of current portion	4,308,346		4,308,346
Deferred rent, net of current portion	160,546		160,546
Deferred tax liabilities	997,500		997,500
Total liabilities	8,171,452	3,211,173	11,382,625
Minority Interest	—		—
Stockholders' equity:			
Preferred stock—par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 113,413 and 1,028,069 at March 31, 2007 and December 31, 2006, respectively	113		113
Common stock—par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 38,788,666 and 35,639,521 at March 31, 2007 and 35,639,521 and 35,639,521 at December 31, 2006, respectively	38,789		38,789
Additional paid-in capital	156,493,314	(3,675,874)	152,817,440
Receivables from stockholders	(50,000)		(50,000)
Accumulated deficit	(132,840,637)	464,701	(132,375,936)
Accumulated other comprehensive income	105,912		105,912
Total stockholders' equity	23,747,491	(3,211,173)	20,536,318
Total liabilities, minority interest and stockholders' equity	$ 31,918,943	$ —	$ 31,918,943

(B) Reclassification of warrants from equity to liability.

2. Restatement of Prior Periods Presented (Continued)

CONSOLIDATED BALANCE SHEET

	December 31, 2006	Adjustments(B)	December 31, 2006
	As reported		As restated
ASSETS			
Current assets:			
Cash and cash equivalents	$ 8,321,606	$	$ 8,321,606
Short-term investments	14,700,000		14,700,000
Accounts receivable	326,071		326,071
Prepaid expenses and other current assets	1,124,262		1,124,262
Total current assets	24,471,939		24,471,939
Fixed assets, net	390,789		390,789
Intangible assets, net	6,514,293		6,514,293
Goodwill	4,290,594		4,290,594
Other assets	282,000		282,000
Total assets	$ 35,949,615	$ —	$ 35,949,615
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS' EQUITY			
Current liabilities:			
Accounts payable and accrued expenses	$ 2,009,972	$	$ 2,009,972
Accrued clinical trial expenses	675,330		675,330
Common stock warrants	—	3,540,692	3,540,692
Deferred revenue	583,147		583,147
Deferred rent	50,581		50,581
Total current liabilities	3,319,030	3,540,692	6,859,722
Deferred revenue, net of current portion	4,396,875		4,396,875
Deferred rent, net of current portion	177,909		177,909
Deferred tax liabilities	1,013,250		1,013,250
Total liabilities	8,907,064	3,540,692	12,447,756
Minority Interest	5,349,995		5,349,995
Stockholders' equity:			
Preferred stock—par value $0.001; Authorized shares: 10,000,000, issued and outstanding: 1,028,069 and 1,562,424 at December 31, 2006 and 2005, respectively	1,028		1,028
Common stock—par value $0.001; Authorized shares: 300,000,000, issued and outstanding: 35,639,521 and 29,468,756 at December 31, 2006 and 2005, respectively,	35,639		35,639
Additional paid-in capital	150,459,604	(3,675,874)	146,783,730
Receivables from stockholders	(86,030)		(86,030)
Accumulated deficit	(128,754,730)	135,182	(128,619,548)
Accumulated other comprehensive income	37,045		37,045
Total stockholders' equity	21,692,556	(3,540,692)	18,151,864
Total liabilities, minority interest and stockholders' equity	$ 35,949,615	$ —	$ 35,949,615

(B) Reclassification of warrants from equity to liability.

3. Summary of Significant Accounting Policies

Consolidation

The accompanying consolidated financial statements include the accounts of Inovio Biomedical Corporation and its domestic and foreign subsidiaries. In January 2007, we acquired the minority interest of our Singapore subsidiary, IAPL. We now wholly own all of our subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

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. We base our 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, we review our estimates to ensure that these estimates appropriately reflect changes in our business or as new information become available.

Fair Value of Financial Instruments

Our financial instruments consist of cash and cash equivalents, short-term investments, and accounts receivables and payables. The carrying amounts of these instruments approximate fair value because of their short-term maturities and variable interest rates.

Cash and Cash equivalents

Cash equivalents are highly liquid investments purchased with original maturities of three months or less and are stated at cost, which approximates market value. At December 31, 2007 and 2006, cash equivalents included $3.7 million and $2.0 million in money market funds, respectively.

Short-term Investments

Our short-term investments consist of auction rate securities classified as available-for sale, which are on deposit with a major financial institution and are stated at market value. All of our short-term investments are classified as municipal debt securities as of December 31, 2007 and 2006, and are auction rate securities which have contractual maturities in excess of ten years and reset to par on a monthly basis.

Accounts receivable

Trade accounts receivable are recorded at invoiced amounts and do not bear interest. We perform 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, 2007 and 2006.

3. Summary of Significant Accounting Policies (Continued)

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.

Cost method investments

Investments in corporate entities with less than a 20% voting interest are accounted for under the cost method. We monitor these investments for impairment and make appropriate reductions in carrying values if we determine an impairment charge is required, based primarily on the financial condition and near-term prospects of these companies. As of December 31, 2007 no impairments have been noted.

The Company's cost method investments consist of minor investments in two non-public companies of $125,000 and $25,000, for both years ended December 31, 2007 and 2006. The fair value of the Company's cost method investments is not estimated if there are no identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investments. The Company has determined, in accordance with SFAS 107, "Disclosures about Fair Value of Financial Instruments," that it is not practicable to estimate the fair value of the investments because the cost basis investments are in non-public companies and there is no recognized exchange for which these investments are sold.

Goodwill

Goodwill represents costs which were in excess of the fair value in our acquisition of Inovio AS.

In accordance with SFAS No. 142, "Goodwill and Other Intangible Assets," goodwill and intangible assets with indefinite lives are not amortized but instead are measured for impairment annually, or when events indicate that impairment exists. Our 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 our reporting unit exceeds its fair value, then the second step of the impairment test is performed to measure the impairment loss, if any. We test goodwill for impairment at the entity level which is considered our reporting unit. Our 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, we 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, we 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.

3. Summary of Significant Accounting Policies (Continued)

We conduct the impairment test annually on November 30th for each fiscal year for which goodwill is evaluated for impairment. We are also aware of the requirement to evaluate goodwill for impairment at other times should circumstances arise pursuant to the guidance provided in SFAS 142, paragraph 26. To date, we have 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.

Intangible Assets

Intangible assets acquired as part of the Inovio AS acquisition (see Note 16) are amortized using the straight-line method over their estimated period of contractual and cash flow benefit, which is 18 years.

Patents are recorded at cost and amortized using the straight-line method over the expected useful lives of the patents or 17 years, whichever is less. Cost is comprised of the consideration paid for patents and related legal costs. If management determines that development of products to which patent costs relate is not reasonably certain or that costs exceed recoverable value, such costs are charged to operations.

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 disclosed in our consolidated financial statements, intangible assets subject to amortization and long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable in accordance with SFAS No. 144 discussed below. Additional factors we consider include the operational performance of our acquired businesses, estimates of future cash flows, market conditions, and other qualitative factors. Any estimates and assumptions we use for reviewing potential impairments are consistent with our internal planning. See Notes 6 and 16 for further discussion of the Company's goodwill and intangible assets.

Minority Interest

In a private placement completed in October 2006, our Singapore subsidiary IAPL issued 2,201,644 ordinary shares to outside investors which created a minority interest. As a result of this transaction, we retained a 75% ownership interest in our IAPL subsidiary with the minority interest shareholders holding 25% as of December 31, 2006. In January 2007, we acquired the minority interest and wholly own IAPL as of December 31, 2007 (see Note 9).

Income taxes

We account for income taxes using the liability method of tax allocation. Future income taxes are recognized for the future income tax consequences attributable to differences between the carrying values of assets and liabilities and their respective income tax bases. Future income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The effect on future income tax assets and liabilities of a change in rates is included in earnings in the period that includes the enactment date. Future income tax assets are recorded in the consolidated financial statements if realization is considered more likely than not.

3. Summary of Significant Accounting Policies (Continued)

Revenue recognition

Revenue is recognized in accordance with SAB No. 104, "Revenue Recognition in Financial Statements" and EITF Issue 00-21, "Revenue Arrangements with Multiple Deliverables".

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 collectibility is reasonably assured.

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 receive non-refundable grants under available government programs. We record government grants applicable towards current expenditures as revenue when there is reasonable assurance that we have complied with all conditions necessary to receive the grants, collectibility is reasonably assured, and the related expenditures have been 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. We expense all such expenditures in the period incurred. Our expenses related to clinical trials are based on services received and efforts expended pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage clinical trials on our behalf. The financial terms of these agreements are subject to negotiation and vary from contract to contract and may result in uneven payment flows. Generally, these agreements set forth the scope of work to be performed at a fixed fee or unit price. Payments under the contracts depend on factors such as the successful enrollment of patients or the completion of clinical trial milestones. Expenses related to clinical trials generally are accrued based on contracted amounts applied to the level of patient enrollment and activity according to the protocol. If timelines or contracts are modified based upon changes in the clinical trial protocol or scope of work to be performed, we modify our estimates accordingly on a prospective basis. In-process research and development ("IPR&D") costs realized upon the acquisition of Inovio AS (see Note 16) were valued using the royalty savings method. Under this method, the value of acquired technology is a function of the projected revenues attributable to the products utilizing the asset, the royalty rate that would hypothetically be charged by a licensor of the technology to a licensee and an appropriate discount rate to reflect the inherent risk of the projected cash flows.

3. Summary of Significant Accounting Policies (Continued)

Net loss per share

Net loss per share is calculated in accordance with the Financial Accounting Standards Board's ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 128, "Earnings Per Share." Basic 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, 2007	As of December 31, 2006	As of December 31, 2005
Options to purchase common stock	3,465,462	2,798,900	1,141,267
Warrants to purchase common stock	8,892,000	8,663,700	5,648,036
Convertible preferred stock	217,720	1,177,959	2,631,512
Non-vested restricted common stock	101,250	—	—
Total	12,676,432	12,640,559	9,420,815

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. Our San Diego headquarter facility lease, which has escalating payments, is expensed on a straight-line basis over the term of five years. At the end of the original 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. This lease represents the primary expense and commitment as indicated in Note 10 "Commitments" below. Other leases exist for the Norway facility and for office machinery, such as copiers, wherein lease expense is recorded as incurred.

Share-based compensation

Effective January 1, 2006 we adopted SFAS No. 123(R) using the modified prospective application method. Accordingly, stock-based compensation cost is measured at the grant date, based on the fair value of the award, and is recognized as an expense over the employee's requisite service period. Because we elected to use the modified prospective application method, results for prior periods have not been restated. In March 2005, the Securities and Exchange Commission issued Staff Accounting Bulletin ("SAB") No. 107, which provides supplemental implementation guidance for SFAS No. 123(R). We have applied the provisions of SAB No. 107 in our adoption of SFAS No. 123(R).

3. Summary of Significant Accounting Policies (Continued)

We estimate 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 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. We amortize 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 calculated using the simplified method based on the terms and conditions of the options as provided in SAB No. 107. 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 we record share-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.

For the purpose of calculating pro-forma information under SFAS No. 123 for periods prior to January 1, 2006, we accounted for forfeitures as they occurred. Assumptions used in the Black-Scholes model are presented below:

	Year Ended December 31,		
	2007	2006	2005
Risk-free interest rate	4.07% - 4.67%	4.68% - 4.96%	3.97%
Expected volatility	93% - 98%	98% - 109.%	104%
Expected life in years	6	6	6
Dividend yield	—	—	—

Other Accumulated Comprehensive Income

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

Pending accounting pronouncements

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities—Including an amendment of FASB Statement No. 115" ("SFAS 159"). Under SFAS 159, we may elect to measure certain financial instruments and other items at fair value on an instrument by instrument basis subject to certain restrictions. SFAS 159 becomes effective for us on January 1, 2008. The impact of the adoption of SFAS 159 will be dependent on the extent to which we elect to measure eligible items at fair value.

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements," ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. The provisions of this standard apply to other accounting pronouncements that require or permit fair value measurements. SFAS 157 becomes effective for us on January 1, 2008. Upon adoption, the provisions of SFAS 157 are to be applied prospectively with limited exceptions. Management is currently evaluating the impact of this standard and does not expect the adoption of SFAS 157 to have a material impact on our consolidated financial statements.

3. Summary of Significant Accounting Policies (Continued)

In December 2007, the SEC issued Staff Accounting Bulletin ("SAB") No. 110 which expresses views regarding the use of a "simplified" method, as discussed in SAB No. 107, in developing an estimate of expected term of "plain vanilla" share options in accordance with SFAS No. 123(R). The impact of this bulletin will not have a material impact on our consolidated financial statements.

Adoption of Recent Accounting Pronouncements

In July 2006, the FASB issued FASB Interpretation No. 48 ("FIN No. 48"), "Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109". This interpretation prescribes a "more-likely-than-not" recognition threshold and measurement attribute (the largest amount of benefit that is greater than 50% likely of being realized upon ultimate settlement with tax authorities) for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. This interpretation also provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. FIN No. 48 is effective for fiscal years beginning after December 15, 2006. The Company adopted FIN No. 48 on January 1, 2007, and there was no impact from adoption on the Company's financial condition and results of operations for the year ended December 31, 2007.

4. Major Customers and Concentration of Credit Risk

Customer	2007	% of Total Revenue	2006	% of Total Revenue	2005	% of Total Revenue
Merck	$ 3,268,884	68%	$ 1,535,540	44%	$ 2,822,634	52%
Wyeth	1,118,023	23	—	—	—	—
Valentis	—	—	655,123	19	—	—
U.S Army grant	21,423	—	898,932	26	684,646	13
All other	399,399	9	378,583	11	1,959,973	35
Total Revenue	$ 4,807,729	100%	$ 3,468,178	100%	$ 5,467,253	100%

In May 2004, we announced that we had signed a collaboration and licensing agreement with Merck & Co., Inc. (Merck) to develop and commercialize our MedPulser® DNA Delivery System, which will be developed for use with certain of Merck's DNA vaccine programs. Under the terms of the agreement, Merck receives the right to use our proprietary technology initially for two specific antigens with an option to extend the agreement to include a limited number of additional target antigens. We received an upfront license payment under this agreement, and may receive milestone payments linked to the successful development of a product. As of December 31, 2007 and 2006, $239,580 or 21%, and $199,489 or 61% of our total accounts receivable balance of $1.1 million and $326,071, respectively, was attributable to Merck.

During the year ended December 31, 2007, we recognized revenue from our collaboration and licensing agreement with Wyeth which was executed in November 2006. As of December 31, 2007, $889,451 or 78% of our total accounts receivable balance of $1.1 million was attributable to Wyeth. None of our accounts receivable balance was attributable to Wyeth at December 31, 2006.

4. Major Customers and Concentration of Credit Risk (Continued)

In October 2006, we acquired various licenses, patents and the rights to existing customer agreements from Valentis in exchange for future cash payments of $540,000 and the settlement of a royalty obligation of $320,000. As part of this arrangement, the Company was discharged of all other outstanding obligations in connection with a previous licensing arrangement, and received approximately $159,000 of funds previously held in escrow. During the year ended December 31, 2007 and 2006 we recorded $0 and $655,123 revenue from Valentis, respectively. None of our total accounts receivable balance as of December 31, 2007 or 2006 was attributable to Valentis.

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

5. Fixed Assets

	Cost	Accumulated depreciation and amortization	Net book value
As of December 31, 2007			
Machinery, equipment and office furniture	$ 2,026,992	$ (1,836,966)	$ 190,026
Leasehold improvements	734,317	(522,616)	211,701
Equipment under capital leases	—	—	—
	$ 2,761,309	$ (2,359,582)	$ 401,727
As of December 31, 2006			
Machinery, equipment and office furniture	$ 1,886,946	$ (1,720,498)	$ 166,448
Leasehold improvements	677,742	(453,401)	224,341
Equipment under capital leases	119,671	(119,671)	—
	$ 2,684,359	$ (2,293,570)	$ 390,789

Depreciation and amortization expense for the years ending December 31, 2007, 2006 and 2005 was $185,683, $206,743 and $147,129, respectively. In accordance with SFAS No. 144, the company determined that the carrying value of these long-lived assets was not impaired for the periods presented.

6. Goodwill and Intangible Assets

In accordance with SFAS No. 142, "Goodwill and Other Intangible Assets," the Company's goodwill is not amortized, but is subject to an annual impairment test. The following sets forth the intangible assets by major asset class:

		December 31, 2007			December 31, 2006		
	Useful Life (Yrs)	Gross	Accumulated Amortization	Net Book Value	Gross	Accumulated Amortization	Net Book Value
Non-Amortizing:							
Goodwill(a)		$ 3,900,713	$ —	$ 3,900,713	$ 4,290,594	$ —	$ 4,290,594
Amortizing:							
Patents	8-17	5,224,109	(2,775,713)	2,448,396	4,829,597	(2,409,080)	2,420,517
Licenses	8-17	1,198,781	(854,497)	344,284	1,198,781	(723,755)	475,026
Other(b)	18	4,050,000	(656,250)	3,393,750	4,050,000	(431,250)	3,618,750
Total Intangible assets		10,472,890	(4,286,460)	6,186,430	10,078,378	(3,564,085)	6,514,293
Total goodwill and intangible assets		$ 14,373,603	$ (4,286,460)	$ 10,087,143	$ 14,368,972	$ (3,564,085)	$ 10,804,887

(a) Goodwill was recorded from the Inovio AS acquisition in January 2005 (See Note 16). In 2007 we recorded a reduction in Goodwill of $389,881 related to the realization of foreign net operating loss carry forwards.

(b) Other intangible assets represent the fair value of acquired contracts and intellectual property from the Inovio AS acquisition (See Note 16). At the time of the acquisition, we determined the remaining useful life for the acquired contractual relationships to be approximately 18 years, reflecting the period over which the contractual relationships would contribute to our cash flows, consistent with the guidance in SFAS 142, paragraph 11. We evaluated the useful life of the acquired contractual relationships based upon a review of the legal life of the underlying patents and discussions with the management of Inovio AS regarding estimates of each patent's useful economic life as it related to the acquired contracts. Based on these factors, we determined that our relevant market sales and cash flows would likely decline after 18 years, when the key patents related to the acquired contracts expire. We expect that the acquired contractual relationships will continue to provide positive cash flows through at least 18 years, as determined at the time of acquisition.

Aggregate amortization expense on intangible assets was $831,958, $767,900 and $709,938 for the years ended December 31, 2007, 2006 and 2005, respectively. Amortization expense related to intangible assets at December 31, 2007 for each of the next five fiscal years and beyond is expected to be incurred as follows:

2008	$ 767,767
2009	645,811
2010	595,093
2011	545,417
2012	497,070
Thereafter	3,135,272
	$ 6,186,430

In accordance with SFAS No. 142, 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. There were no impairments or impairment indicators present and no loss was recorded during the year ended December 31, 2007.

7. Accounts Payable and Accrued Expenses

	As of December 31, 2007	As of December 31, 2006
Trade accounts payable	$ 394,786	$ 555,323
Accrued compensation	559,685	735,993
Accrued clinical trial expenses	573,767	675,330
Other accrued expenses	852,834	718,656
	$ 2,381,072	$ 2,685,302

8. Deferred Revenue

We defer revenue recognition of cash receipts from licensing and other agreements and recognize them ratably over the minimum remaining period of our performance obligations. The combined current and long-term deferred revenue balance of $4.9 million consists primarily of an unrecognized balance of $4.2 million arising from the $4.5 million payment received from Wyeth in November 2006 for the 15 year collaborative and licensing agreement.

9. Stockholders' Equity

Preferred Stock

			Outstanding as of December 31,	
	Authorized	Issued	2007	2006
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	71	102
Series D Preferred Stock, par $0.001	1,966,292	1,966,292	113,311	1,027,967

The following is a summary of changes in the number of outstanding shares of our preferred stock for the years ended December 31, 2005, 2006 and 2007:

	Series A	Series B	Series C	Series D
Shares Outstanding as of January 1, 2005	291	110	1,040	—
Preferred Shares issued	—	—	—	1,966,292
Preferred Shares converted	(239)	(10)	(703)	(404,357)
Shares Outstanding as of December 31, 2005	52	100	337	1,561,935
Preferred Shares converted	(52)	(100)	(235)	(533,968)
Shares Outstanding as of December 31, 2006	—	—	102	1,027,967
Preferred Shares converted	—	—	(31)	(914,656)
Shares Outstanding as of December 31, 2007	—	—	71	113,311

The shares of the Company's outstanding Series C and Series D 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.

9. Stockholders' Equity (Continued)

Dividend Preferences

The holders of all series of the Company's preferred stock are entitled to receive dividends on a pari passu basis with the holders of common stock, when, if and as declared by the Company's Board of Directors.

In addition, the holders of the Series C Preferred Stock received a mandatory dividend rate of 6% per annum per outstanding share of Series C Preferred Stock, payable quarterly, based on the $10,000 Liquidation Preference of such share through the period ending on May 20, 2007. These dividends were paid in cash or common stock equal to the equivalent cash amount divided by the 20 day preceding average closing price. The Company could only elect to pay the dividends in shares of common stock if the average closing price of the shares of common stock for the 20 days immediately preceding the dividend payment date was equal to or greater than the conversion price of either of the relevant series of Preferred Stock. All dividends were paid to outstanding Series C Preferred Stockholders on each quarter-end payment date. We paid cash dividends to holders of our Series C Preferred Stock of $23,335 and $117,204 during the years ended December 31, 2007 and 2006.

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). In the event of any liquidation event, the holders of the Series D Preferred Stock are entitled to be paid out of the assets of the Company available for distribution to its stockholders (i) before any distribution of assets of the Company shall be made to or set apart for the holders of common stock or any class or series of stock ranking on liquidation junior to the Series D Preferred Stock, (ii) ratably with any class or series of stock ranking on liquidation on a parity with the Series D Preferred Stock, and (iii) after and subject to the payment in full of all amounts required to be distributed to the holders of the Company's Series C Preferred Stock and any other class or series of stock of the Company ranking on liquidation prior and in preference to the Series D Preferred Stock, an amount equal to $3.204 per share of Series D Preferred Stock.

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

9. Stockholders' Equity (Continued)

addressed by separate terms in the Series C and Series D 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.

Actions Requiring the Consent of Holders of Convertible Preferred Stock

As long as at a certain number of shares of each series of the Company's preferred stock issued on the respective "Date of Original Issue" for such series are outstanding, the consent of at least a majority of the shares of that series of preferred stock outstanding are necessary to approve:

(a) Any amendment, alteration or repeal of (i) any of the provisions of the relevant series' Certificate of Designation, including any increase in the number of authorized shares of such series or (ii) the Company's Certificate of Incorporation or Bylaws in a manner that would adversely affect the rights of the holders of the relevant series of preferred stock;

(b) the authorization, creation, offer, sale or increase in authorized shares by the Company of any stock of any class, or any security convertible into stock of any class, or the authorization or creation of any new series of preferred stock ranking in terms of liquidation preference, redemption rights or dividend rights, pari passu with or senior to, the relevant series of preferred stock in any manner;

(c) the declaration or payment of any dividend or other distribution (whether in cash, stock or other property) with respect to the Company's capital stock or that of any subsidiary, other than a dividend or other distribution pursuant to the terms of the relevant series of preferred stock or other series of preferred stock noted in the relevant Certificate of Designation; and

(d) except for the holders of the Series D Preferred Stock, the redemption, purchase or other acquisition, directly or indirectly, of any shares of the Company's capital stock or any of its subsidiaries or any option, warrant or other right to purchase or acquire any such shares, or any other security, other than certain accepted redemptions of preferred stock, certain outstanding warrants, the repurchase of shares at cost from employees of the Company upon termination of employment in accordance with written agreements pursuant to which the shares were issued, or other specified repurchase or redemption rights pursuant to written agreements outstanding at the time of original issuance of the preferred stock in question.

These specific voting rights are applicable for the Series C Preferred Stock as long as at least 35% of the number of shares of Series C Preferred Stock issued on the Date of Original Issue remain

9. Stockholders' Equity (Continued)

outstanding, and the same threshold applies to the Series D Preferred Stock. As of December 31, 2007, only the outstanding shares of our Series D Preferred Stock had such series voting rights remaining.

Participation Rights

Holders of the Series C Preferred Stock have the right to participate with respect to the Company's issuance of any equity or equity-linked securities or debt convertible into equity or in which there is an equity component ("Additional Securities") on the same terms and conditions as offered by the Company to the other purchasers of such Additional Securities. However securities issued or issuable upon any of the following are not deemed "Additional Securities": (A) the conversion of outstanding preferred stock or exercise of related warrants, or the issuance of shares of common stock as payment of dividends to holders of preferred stock, (B) the exercise of any warrants or options outstanding prior to the authorization or issuance of the series of preferred stock in question (C) the issuance (at issuance or exercise prices at or above fair market value) of common stock, stock awards or options under, or the exercise of any options granted pursuant to, any Board-approved employee stock option or similar plan for the issuance of options or capital stock of the Company, (D) the issuance of shares of common stock pursuant to a stock split, combination or subdivision of the outstanding shares of common stock, and (E) for evaluation of the rights of the Series C Preferred Stock only, in connection with a bona fide joint venture or development agreement or strategic partnership, the primary purpose of which is not to raise equity capital.

Each time the Company proposes to offer any Additional Securities, it is obligated to provide each holder of shares of the Series C Preferred Stock notice of such intention including the terms of such intended offering (including size and pricing) and the anticipated closing date of the sale. These preferred stockholders then have a specified period in which to respond to the Company to elect to purchase or obtain, at the price and on the terms specified in the Company's notice, up to that number of such Additional Securities which equals such holder's Pro Rata Amount. The "Pro Rata Amount" for any given holder of shares of the Series C Preferred Stock equals that portion of the Additional Securities offered by the Company which equals the proportion that the number of shares of common stock that such preferred stockholder owns or has the right to acquire to the total number of shares of common stock then outstanding (assuming in each case the full conversion and exercise of all convertible and exercisable securities then outstanding).

The holders of the Series C Preferred Stock have the right to pay the consideration for the Additional Securities purchasable upon such participation with shares of such series of Preferred Stock, which will be valued for such purpose at the applicable series' Liquidation Preference plus any accrued and unpaid dividends for such purpose. However, when shares of such preferred stock are used as participation consideration, then such holder's Pro Rata Amount is increased (but not decreased) to the extent necessary to equal that number of Additional Securities as are convertible into or exchangeable for such number of shares of Common Stock as is obtained by dividing (a) the Liquidation Preference attributable to such holder's shares of the applicable series of Preferred Stock plus any accrued and unpaid dividends on such Preferred Stock by (b) the Conversion Value then in effect for such shares, and in such event the Company shall be obligated to sell such number of Additional Securities to each such holder, even if the aggregate Pro Rata Amount for all such holders exceeds the aggregate amount of Additional Securities that the Company had initially proposed to offer. To the extent that not all holders of a particular series of preferred stock elect to participate up

9. Stockholders' Equity (Continued)

to their full Pro Rata Amounts, the participating holders of that series of preferred stock have the right to increase their participation accordingly.

The participation rights of the holders of the Series C Preferred Stock may not be assigned or transferred, other than assignment to any wholly-owned subsidiary or parent of, or to any corporation or entity that is, within the meaning of the Securities Act, controlling, controlled by or under common control with, any such holder. As a result of transfers, the holders of the Series C Preferred Stock outstanding as of December 31, 2007 no longer had such participation rights.

The Series D Preferred Stock has no participation rights.

During our October 2006, December 2005 and January 2005 common stock offerings, we informed holders of our outstanding Series A, B, and C Cumulative Convertible Preferred Stock with participation rights, of their ability to participate in the respective offering based upon the pricing of the transaction and the applicable liquidation preference for the series of preferred share participating. These participating stockholders obtained incremental shares of common stock as a result of exercising their participation rights, thereby converting their outstanding shares of Cumulative Convertible Preferred Stock at a lower offering price compared to their current conversion price. The right to participate was available only for a limited period time in relation to the specific transaction and the exercise of the existing participation right did not reflect or create a lasting change in the holders' conversion privileges. Some of the participating stockholders had previously converted a portion of their shares of the Company's preferred stock pursuant to their optional conversion rights, and most of the participating stockholders wholly converted their remaining shares of the Company's preferred stock through exercise of their participation rights in the noted offerings.

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 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

9. Stockholders' Equity (Continued)

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, 2007, our outstanding shares of the Series C Preferred Stock were convertible into 104,410 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.

The Series D Preferred Stock only provides the holder of such shares an optional conversion right. As of December 31, 2007, 113,311 shares of the Series D Preferred Stock were convertible into our common stock on a one-for-one basis.

Imputed and Declared Dividends on Preferred Stock

The holders of our Series A and B Preferred Stock were entitled to receive an annual dividend at the rate of 6%, payable quarterly, through September 30, 2006. 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 we may have elected to pay the dividends to the holders in common stock. As part of this dividend to holders of Series A and B Preferred Stock, we issued a total of 2,871 common shares valued at $7,693, and paid $15,140 in cash during 2006. We issued a total of 55,518 common shares valued at $179,956 and paid $60,235 in cash during 2005. There were no shares of Series A or B Preferred Stock outstanding on December 31, 2007 and 2006, respectively. As of December 31, 2005, 52 shares of Series A Preferred Stock and 100 shares of Series B Preferred Stock remained outstanding.

The holders of our Series C Preferred Stock are entitled to receive an annual dividend at the rate of 6%, payable quarterly, through May 20, 2007. These dividends are payable in cash unless the closing price of our common shares for the 20 trading days immediately preceding the dividend payment date is equal to or greater than the conversion price of such shares, in which event we may elect to pay the dividends to the holders in common stock. As part of this dividend, we paid cash of $23,335 during fiscal 2007 to holders of our Series C Preferred Stock. We paid cash $117,204 during fiscal 2006 to holders of our Series C Preferred Stock and accrued $14,571 for certain holders of our Series C Preferred Stock who participated in our October 2006 equity financing, during fiscal 2006. We paid dividends in cash of $553,694 during 2005.

9. Stockholders' Equity (Continued)

During 2006, we recorded an imputed dividend charge of $1.9 million during the three months ended December 31, 2006, related to the investors who converted $1.2 million of their Series C Preferred Stock investment into 473,744 shares of our common stock as part of our October 2006 private placement. This imputed dividend charge was calculated using guidance contained in Emerging Issues Task Force ("EITF") Issue No. 00-27, "Application of Issue No. 98-5 to Certain Convertible Instruments." As part of this private placement, these investors received 304,450 additional shares of our common stock, as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. Under EITF Issue No. 00-27, this incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the $1.9 million imputed dividend charge associated with this beneficial conversion.

During 2005, we recorded an imputed dividend charge of $1.9 million related to the investors who converted $3.2 million of their previous Series C Preferred Stock investment into 790,123 shares of our common stock as part of our January 2005 private placement. As part of this private placement, these investors received 319,535 additional shares of our common stock by participating, as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. This incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the $1.9 million imputed dividend charge associated with this beneficial conversion.

During 2005, we also recorded an imputed dividend charge related to common stockholders of $8.3 million to the investors who converted their Series B and C Preferred Stock and common stock investments into shares of common stock as part of our December 2005 private placement. As part of this private placement, these investors received 1,670,406 additional shares of our common stock by participating, as compared to the number of shares of our common stock into which their existing common or preferred stock could have been converted under the original terms of their agreements. This incremental number of shares of our common stock was multiplied by the price of our common stock on the commitment date of the original issuance, to calculate the $8.3 million imputed dividend charge associated with this beneficial conversion.

Common Stock

In August 2007, we entered into an agreement with an outside consulting advisor pursuant to which we 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.

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

In March 2007, we entered into an agreement in which we agreed to issue a total of 90,000 restricted shares of our common stock in equal quarterly installments in exchange for consulting services. As of December 31, 2007, we had issued 33,750 restricted common shares and recorded a consulting expense and related liability of $10,350 as of December 31, 2007 for the 11,250 common shares which were issued in January 2008. During the remaining term of the agreement, we will

9. Stockholders' Equity (Continued)

continue to issue 11,250 restricted shares of our common stock at each quarter-end in exchange for the consulting services we will receive each quarter.

In January 2007, we exchanged for 2,201,644 restricted shares of our common stock and warrants to purchase up to 770,573 restricted shares of our common stock for 2,201,644 ordinary shares of our 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.

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

In October 2006, we completed a registered offering with foreign investors, whereby we sold 4,074,067 shares of our common stock and issued warrants to purchase 1,425,919 shares of our common stock which resulted in gross aggregate cash proceeds of $9.9 million. As part of this offering, we informed holders of our then outstanding Series C Preferred Stock who held participation rights, of their ability to participate in the respective offering based upon the pricing of the transaction and the applicable liquidation preference for their series of preferred shares with such rights. Some of these participating stockholders had previously converted a portion of their shares of preferred stock pursuant to their optional conversion rights, and most of these participating stockholders wholly converted their remaining shares of the Company's preferred stock through exercise of their participation rights in this offering. By electing to participate in this offering, these participating preferred stockholders converted 115.12 shares of previously issued Series C Preferred Stock and $14,571 of accrued dividends into 479,722 restricted shares of our common stock and warrants to purchase 167,902 restricted shares of our common stock. These participating stockholders received 304,450 additional restricted shares of our common stock as compared to the number of shares of our common stock into which their existing Series C Preferred Stock could have been converted under the original terms of the Series C Preferred Stock. As a result, we recorded an imputed dividend charge of $1.9 million related to the participating stockholders who converted $1.2 million of their previous Series C Preferred Stock investment. We calculated this imputed dividend charge pursuant to the guidance contained in Emerging Issues Task Force ("EITF") Issue No. 00-27, "Application of Issue No. 98-5 to Certain Convertible Instruments," where the incremental number of shares of our common stock which was received by our participating Series C Preferred Stockholders was multiplied by the price of our common stock on the commitment date of the original Series C Preferred Stock issuance, or $6.08 per share, to calculate the imputed dividend charge associated with this beneficial conversion.

In July and October 2006, we issued 25,000 and 24,261 shares of our common stock, respectively, to an outside consulting company in payment of a non-refundable retainer in connection with the engagement of its services.

In June 2006, we issued 86,956 common shares to a licensing company in exchange for various patents and other assets and a $50,000 shareholder note receivable.

In December 2005, we completed a private placement of an aggregate of $15.8 million in gross cash proceeds through the sale of our common stock to institutional and accredited investors that included Merck and Vical, two of our strategic partners. At the closing, we issued to the investors an

9. Stockholders' Equity (Continued)

aggregate of 9,892,735 shares of common stock and warrants to purchase an aggregate of 3,462,451 shares of common stock, and received in exchange (1) gross cash proceeds of $15.8 million; (2) an aggregate of 734 shares of outstanding Series A, B and C Cumulative Convertible Preferred Stock; and (3) 1,142,593 shares of our outstanding common stock. In addition, we issued to the investors five-year warrants to purchase 35% of the number of shares of common stock they acquired in the offering at an exercise price of approximately $2.93 per share.

In January 2005, we completed a private placement to accredited investors whereby we sold 1,540,123 shares of our common stock at a purchase price of $4.05 per share and issued warrants to purchase 508,240 shares of our common stock at an exercise price of $5.50 per share, which resulted in aggregate cash proceeds of $3.0 million. Of the aggregate proceeds, 20% was due upon the closing of the offering in January 2005, and 80% was due six months after the closing in June 2005, which resulted in the receipt of a promissory note from these 80% investors, for which we later granted an extension to December 2005. Prior to December 2005, we received the remaining amount due from one of the three investors and therefore issued this investor its previously subscribed shares of common stock. A portion of this private placement involved investors who converted $3.2 million of their previous investment in our Series C Preferred Stock into 790,123 shares of the common stock issued as part of this private placement with no associated cash proceeds to us.

The Company offered to exchange all or a portion of the remaining two subscribed investors January 2005 shares of common stock for new common stock and new warrants issued in the December 2005 offering. These participating investors were offered the same securities and pricing offered to new outside investors in the December 2005 offering, and the two remaining subscribed investors accepted the exchange offer. Therefore, in the December 2005 offering, the first previously subscribed investor exchanged 750,000 shares of previously subscribed common stock for 1,265,625 shares of new common stock in addition to 442,969 new warrants to purchase shares of common stock. The second previously subscribed investor exchanged 392,593 shares of previously subscribed common stock for 662,500 shares of new common stock and 231,875 new warrants to purchase shares of common stock. Because the purchase price in the December 2005 offering was lower than the January 2005 offering, the exchange resulted in a repricing of the shares subscribed to by these investors from $4.05 per share in the January 2005 offering to $2.40 per common share.

To account for this transaction, we followed the guidance contained in EITF 00-27 when calculating the imputed dividend charge related to this offering.

Warrants

In addition to warrants granted in connection with our Common and Preferred Stock offerings, as discussed above, we have issued the following additional warrants.

In connection with the leasing of our new corporate headquarters, we issued a warrant to purchase 50,000 shares of our common stock at $5.00 per share to the landlord of this leased facility in December 2004. This warrant is immediately exercisable and expires five years from the date of issuance. This warrant was valued on the date of issuance using the Black-Scholes pricing model. The fair value of this warrant, $120,913, will be recognized ratably over the five-year term of the lease as rent expense. As of December 31, 2007, this warrant remained outstanding.

9. Stockholders' Equity (Continued)

On June 6, 2002, we granted warrants to a placement agent to acquire 166,250 shares of common stock for $1.88 per share. In September 2003, warrants to purchase 30,000 shares of common stock were exercised totaling $56,400 in gross proceeds. In March 2005, warrants to purchase 136,250 shares of common stock were exercised totaling $256,150 in gross proceeds.

On September 15, 2000, we 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, we granted USF and its designees warrants to acquire 150,000 common shares for $9.00 per share until September 14, 2010. 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 $553,950 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, 2007, no warrants issued in connection with this licensing agreement had been exercised.

Stock options

We have one active stock and cash-based incentive plan, our 2007 Omnibus Incentive Plan (the "Incentive Plan"), pursuant to which we have granted stock options and restricted stock awards to executive officers, directors and employees. The plan was adopted on March 31, 2007 and approved by the stockholders on May 4, 2007. The Incentive Plan reserves 750,000 shares of our common stock for issuance as or upon exercise of incentive awards granted and to be granted at future dates. At December 31, 2007, we had 539,375 shares of common stock available for future grant and had outstanding 101,250 shares of unvested restricted common stock, 63,750 shares of vested restricted stock, and options to purchase 45,625 shares of common stock. The awards granted and available for future grant under the Incentive Plan generally have a term of ten years and generally vest over a period of three years. The Incentive Plan terminates by its terms on March 31, 2017.

The Incentive Plan supersedes all of our previous stock option plans, which include our 1997 Stock Option Plan, under which we had options to purchase 41,498 shares of common stock outstanding and our Amended 2000 Stock Option Plan, under which we had options to purchase 3,378,339 shares of common stock outstanding at December 31, 2007. The terms and conditions of the options outstanding under these plans remain unchanged.

Total compensation cost under SFAS No. 123(R) for our stock plans for the years ended December 31, 2007 and 2006 was $1.6 million and $1.3 million, of which $354,064 and $423,229 was included in research and development expenses and $1.2 million and $920,874 was included in general and administrative expenses, respectively.

At December 31, 2007 and 2006, there was $1.3 million and $946,844 of total unrecognized compensation cost, respectively, related to unvested stock options, which is expected to be recognized over a weighted-average period of one year.

Prior to January 1, 2006, we accounted for employee stock options under the measurement and recognition provisions of APB No. 25. Accordingly, we recorded no share-based compensation expense for employee stock option grants as all options granted had exercises prices greater than the fair

9. Stockholders' Equity (Continued)

market value of the underlying stock on the date of grant. In accordance with SFAS No. 123, "Accounting for Stock-Based Compensation," we provided pro forma net loss and net loss per share disclosures for each period presented in these consolidated financial statements prior to the adoption of SFAS No. 123(R) as if we had applied the fair value-based method in measuring compensation expense for our share-based compensation plans. The following table illustrates the effect on net loss attributable to common stockholders as if the fair value-based method had been applied to all outstanding and unvested awards during the year ended December 31, 2005.

	Year ended December 31, 2005
Net loss attributable to common stockholders, as reported	$ (26,362,622)
Deduct: Stock-based employee compensation expense determined under fair value method for all awards	(1,375,703)
Pro forma net loss attributable to common stockholders	$ (27,738,325)
Basic and diluted net loss attributable to common stockholders per share, as reported	$ (1.39)
Basic and diluted pro forma net loss attributable to common stockholders per share	$ (1.46)

We account for options granted to non-employees in accordance with Emerging Issues Task Force ("EITF") No. 96-18, "Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services," and Statement of Financial Accounting Standard ("SFAS") No. 123(R), "Share-Based Payment." The fair value of these options at the measurement dates was estimated using the Black-Scholes pricing model.

Total stock-based compensation for options granted to non-employees for the years ended December 31, 2007, 2006 and 2005, was $119,191, $202,604, and $116,382, respectively. As of December 31, 2007 and 2006, 455,937 and 280,937 options remained outstanding, respectively.

The following table summarizes total stock options outstanding at December 31, 2007:

	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 - $ 2.00	508,280	4.8	$ 1.51	495,623	$ 1.50
$2.01 - $ 4.00	2,445,435	7.7	$ 2.96	1,360,142	$ 2.84
$4.01 - $ 6.00	401,499	6.1	$ 4.97	378,999	$ 5.00
$6.01 - $ 8.00	72,500	5.1	$ 6.27	72,500	$ 6.27
$8.01 - $22.00	37,748	0.9	$ 12.22	37,748	$ 12.22
	3,465,462	6.9	$ 3.15	2,345,012	$ 3.17

9. Stockholders' Equity (Continued)

At December 31, 2007, the aggregate intrinsic value of options outstanding was $150, the aggregate intrinsic value of options exercisable was $150, and the weighted average remaining contractual term of options exercisable was 6.1 years.

At December 31, 2006, the aggregate intrinsic value of options outstanding was $1.9 million; the aggregate intrinsic value of options exercisable was $1.5 million 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, 2004	2,093,713	$ 3.47
Granted	622,000	3.77
Exercised	(34,980)	1.70
Cancelled	(296,845)	3.68
Balance, December 31, 2005	2,383,888	3.55
Granted	872,750	2.56
Exercised	(148,628)	1.69
Cancelled	(309,110)	4.64
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

The weighted average exercise price was $6.36 for the 118,250 options which expired during the year ended December 31, 2007, $5.53 for the 167,687 options which expired during the year ended December 31, 2006 and $4.24 for the 139,913 options which expired during the year ended December 31, 2005.

The weighted average grant date fair value per share was $2.51 for options granted during the year ended December 31, 2007, $2.18 for options granted during the year ended December 31, 2006 and $3.05 for options granted during the year ended December 31, 2005.

The aggregate intrinsic value of options exercised was $94,876 during the year ended December 31, 2007; $158,042 during the year ended December 31, 2006 and $32,556 during the year ended December 31, 2005.

9. Stockholders' Equity (Continued)

A summary of the Company's nonvested restricted shares as of December 31, 2007 and activity during the year is as follows:

	Number of shares	Weighted-average grant-date fair value
Nonvested at January 1, 2007	—	—
Granted	165,000	$ 3.69
Vested	(63,750)	$ 3.69
Forfeited	—	—
Nonvested at December 31, 2007	101,250	$ 3.69

As of December 31, 2007, there was $278,991 of total unrecognized compensation cost related to nonvested share-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 2 years.

10. Commitments

Rent expense was $490,069, $488,774, and $553,229 for the years ended December 31, 2007, 2006 and 2005, respectively. This amount is net of sublease income of $37,679 and $37,950 in 2007 and 2006, respectively. Future minimum lease payments under non-cancelable operating leases as of December 31, 2007 are as follows:

2008	$ 508,907
2009	522,049
2010	103,036
2011	5,640
Thereafter	—
Total	$ 1,139,632

In the normal course of business, we are a party to a variety of agreements pursuant to which we 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, results of operations or financial condition.

11. Income Taxes

In accordance with SFAS 109, "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. We provide 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.

11. Income Taxes (Continued)

The components of the provision (benefit) for income taxes are shown below:

	As of December 31, 2007	As of December 31, 2006	As of December 31, 2005
Current:			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	—	—	—
	$ —	$ —	$ —
Deferred:			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	327,000	(63,000)	(58,000)
	$ 327,000	$ (63,000)	$ (58,000)

The reconciliation of income tax 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, 2007	Year ended December 31, 2006	Year ended December 31, 2005
Income taxes at statutory rates	$ (3,786,000)	$ (4,368,000)	$ (5,374,000)
State income tax, net of federal benefit	(742,000)	(659,000)	(676,000)
Change in valuation allowance	(6,445,000)	4,636,000	4,486,000
IRC Section 382 limitation	12,749,000	—	—
Write off of in-process research and development	—	—	1,166,000
Fair value warrant	(1,192,000)	—	—
Other	(257,000)	328,000	340,000
	$ 327,000	$ (63,000)	$ (58,000)

The income tax expense has been recorded as an increase to general and administrative expenses, as its effect is immaterial.

11. Income Taxes (Continued)

Significant components of our deferred tax assets and liabilities as of December 31, 2007 and 2006 are shown below:

	As of December 31, 2007	As of December 31, 2006
Deferred tax assets:		
Capitalized research expense	$ 929,000	$ 785,000
Net operating loss carry forwards	23,019,000	30,650,000
Research and development and other tax credits	1,356,000	1,732,000
Other	4,028,000	3,001,000
	29,332,000	36,168,000
Valuation allowance	(29,332,000)	(36,168,000)
Total deferred tax assets	—	—
Deferred tax liabilities:		
Difference between book and tax basis for patent and license costs	—	—
Acquired intangibles	(950,250)	(1,013,250)
Net deferred tax liabilities	$ (950,250)	$ (1,013,250)

We have established a valuation allowance for all deferred tax assets, including those for net operating loss ("NOL") and tax credit carry forwards. 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 $950,250 as of December 31, 2007, 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.

As of December 31, 2007, we had federal and California tax net operating loss carry forwards of approximately $55.9 million and $50.8 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. The difference between the federal and California tax loss carry forwards is primarily attributable to the capitalization of research and development expenses for California income tax purposes and the 50% to 60% limitation of California loss carry forwards. In addition, we have federal and state research tax credit carry forwards of $713,542 and $988,523, respectively. The federal tax credit carry forwards will begin to expire in 2022. The California research tax credit carry forwards do not expire. At December 31, 2007, the Company had foreign tax loss carry forwards related to the acquisition of Inovio AS of approximately $2.2 million. The foreign net operating loss carry forwards begin to expire in 2011. Future realization of this asset will result in a reduction to the extent of any remaining goodwill, then to any remaining long-term intangibles, and the remainder, if any, as a reduction of income tax expense. During 2007, $389,881 was recognized and recorded as a reduction of goodwill.

11. Income Taxes (Continued)

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 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 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.

In July 2006, the FASB issued FIN 48, which clarifies the accounting for uncertainty in income taxes recognized in a company's financial statements in accordance with Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes." FIN 48 prescribes a recognition threshold and measurement process for recording in the financial statements uncertain tax positions taken or expected to be taken in a tax return. Additionally, FIN 48 provides guidance on the de-recognition, classification, interest and penalties, accounting in interim periods, and disclosure requirements for uncertain tax positions. We adopted the provisions of FIN 48 beginning January 1, 2007. The adoption of FIN 48 did not impact the Company's financial condition, results of operations or cash flows. As of December 31, 2007, the Company has not recorded any uncertain tax benefits.

We file income tax returns in the U.S. and various foreign and state jurisdictions. Due to our losses incurred, we are essentially subject to income tax examination by tax authorities from our inception to date. Our policy is to recognize interest expense and penalties related to income tax matters as tax expense. At December 31, 2007, we do not have any significant accruals for interest related to unrecognized tax benefits or tax penalties.

12. 401(k) Plan

In 1995, our 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. We currently match 50% of our employees' contributions, up to 6% of their annual compensation. Our contributions are recorded as expense in the accompanying consolidated statements of operations and totaled $54,965, $44,529 and $62,450 for the years ended December 31, 2007, 2006 and 2005, respectively.

13. Segment Information

Pursuant to our acquisition of Inovio AS (see Note 16), the Company operates 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 years ending December 31, 2007 revenues in Europe and the United States totaled $138,525 and $4.7 million, respectively. During the years ending December 31,

13. Segment Information (Continued)

2006 revenues in Europe and the United States totaled $261,935 and $3.2 million, respectively, and during the year ending December 31, 2005 revenues in Europe and the United States totaled $379,250 and $5.1 million, respectively. Long-lived assets within the United States consist primarily of patents and other intellectual property. Long-lived assets outside the United States consist primarily of goodwill and intangible assets. As of December 31, 2007, long-lived assets in Europe and the United States totaled $7.7 million and $2.8 million, respectively. As of December 31, 2006, long-lived assets in Europe and the United States totaled $7.9 million and $2.9 million, respectively, and as of December 31, 2005, long-lived assets in Europe and the United States totaled $8.2 million and $2.3 million, respectively.

14. Related Party Transactions

During the years ended December 31, 2007, 2006 and 2005, we made payments of $0, $4,828, and $20,930, respectively, for legal services formerly provided by Catalyst Corporate Lawyers, where one of the former partners is the Chairman of our Company. All transactions are recorded at their exchange amounts.

In March 2004, we announced the selection of Quintiles Transnational Corp., a global pharmaceutical services organization, as the clinical research organization ("CRO") for our clinical trials in the U.S. and Europe. In addition, the investment division of this CRO, Qfinance, Inc., is an investor in our Series A, B and C Preferred Stock. During the year ended December 31, 2006, Qfinance, Inc. converted 50, 100 and 109 shares respectively, of our Series A, B and C Preferred Stock into a total of 725,788 of our common shares. Total clinical trial expenses paid to Quintiles Transnational Corp. for the years ended December 31, 2007, 2006, and 2005, were $22,536, $371,018 and $3.5 million, respectively.

15. Supplemental Disclosures of Cash Flow Information

	Year ended December 31, 2007	Year ended December 31, 2006	Year ended December 31, 2005
Supplemental schedule of financing activities:			
Conversion of minority interest into common stock	$ 5,349,995	$ —	$ —
Imputed dividends on preferred stock	$ —	$ 1,851,056	$ 10,271,885
Common stock issued in connection with declared dividends on preferred stock	$ —	$ 22,264	$ 179,900
Cashless exercise of warrants	$ 38	$ —	$ 43
Conversions of preferred stock to common stock	$ 961	$ 1,764	$ 3,944
Issuance of series D preferred stock for Inovio AS acquisition	$ —	$ —	$ 7,904,494
Issuance of common stock for patents and other assets	$ —	$ 128,922	$ —
Issuance of common stock in exchange for shareholder note receivable	$ —	$ 86,030	$ —
Leasehold improvements financed by landlord	$ 92,486	$ 172,054	$ —
Investment received in exchange for licensing agreement	$ —	$ 125,000	$ —

16. Inovio AS Acquisition

In January 2005, the Company acquired Inovio AS for purposes of utilizing Inovio AS's electroporation for gene therapy and DNA vaccines as a complement to the Company's existing electroporation therapy program. The acquisition expanded the Company's intellectual property in electroporation and expanded its number of agreements with pharmaceutical companies. The Company's acquired in-process research and development consists of a prototype of a pulse-generating instrument and pulse applicator (the "Technology Platform") acquired in connection with the acquisition of Inovio AS.

At the time of the acquisition of Inovio AS, the Technology Platform acquired had not yet reached economic viability and required an estimated additional $3.0 million investment to produce a product capable of being mass-produced. Further, prior to generating market sales, the Technology Platform would be required to go through clinical trials with each drug, DNA vaccine, or gene with which it would be partnered. As of the date of acquisition, clinical trials had not commenced for any combination of a specific payload and the Technology Platform.

Given the fact that the Technology Platform had no alternative future use, the costs associated with producing a product capable of being mass-produced, and the requirements for FDA approval prior to generating any market sales, we determined the future expense levels to be significant and margins using a discounted cash flow method to be insignificant. Therefore, the Technology Platform was classified as IPR&D upon acquisition and valued using the royalty savings method. Under this method, the value of the technology is a function of the projected revenues attributable to the products utilizing the asset, the royalty rate that would hypothetically be charged by a licensor of the technology to a licensee and an appropriate discount rate to reflect the inherent risk of the projected cash flows.

Royalty Rate

To determine an appropriate royalty rate for the Technology Platform, we considered factors such as the age of the technology, market competition, quality, absolute and relative profitability, and the prevailing rates for similar properties. Our analysis indicated an appropriate pretax royalty rate of 10 percent. This royalty rate was based on an analysis of royalty rates paid for similar drug delivery technologies.

Cost to Complete

As previously mentioned, an additional $3.0 million would be required in order to complete the Technology Platform. Based on discussions with Inovio AS's management, it was estimated that this $3.0 million would be spent during the next three years.

Discount Rate

The discount rate utilized for the Section 197 tax benefit calculation was based on the perceived risk associated with the technology platform. In developing a discount rate for the technology platform, we applied the acquired company's weighted average cost of capital of 43 percent.

The major risks and uncertainties associated with the timely and successful completion of the Technology Platform include both the ability to confirm its safety and efficacy based on data obtained from clinical trials and the ability to obtain necessary regulatory approvals. Additionally, the major risks and uncertainties include the ability to successfully complete the Technology Platform within the

16. Inovio AS Acquisition (Continued)

estimated costs. The above assumptions were prepared solely for the purposes of estimating fair values of these items as of the date of their acquisition. No assurance can be given that the underlying assumptions used to forecast the cash flows or the timely and successful completion of such projects will materialize, as estimated. For these reasons, among others, actual results may vary significantly from the estimated results.

The acquired IPR&D is 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 Technology Platform acquired, and we have entered into certain significant licensing agreements for use of this acquired technology.

Under the terms of the transaction, we acquired the entire share capital of Inovio for an aggregate purchase price of $10.9 million; $3.0 million of the purchase price consisted of cash and $7.9 million consisted of shares of our Series D Convertible Preferred Stock, par value $0.001 per share, net of transaction costs. We issued 1,966,292 shares of the Series D Preferred Stock in the transaction, based on the average closing price of our common stock as reported on the American Stock Exchange during the 30 trading day period immediately preceding the closing. As of December 31, 2007, 1,852,981 shares of the Series D Preferred Stock had been converted into 1,852,981 shares of our common stock.

When valuing the Series D Preferred Stock issued as part of the Acquisition for accounting purposes, we followed guidance set forth in SFAS No. 141, *Business Combinations* . Under SFAS No. 141, the fair value of securities issued as part of an acquisition should be valued based on the market price of those securities for a reasonable period before and after the date that the terms of the acquisition are agreed to and announced. For purposes of valuing the Series D Preferred Stock issued as part of the Acquisition, we used an average fair value of $4.02 per share of Series D Preferred Stock. This average was based on the closing prices of the our common stock on each of the three days prior to the Acquisition, the day of Acquisition and the three days following the Acquisition.

Those shareholders of Inovio AS who received shares of Series D Preferred Stock in the transaction (the "Series D Holders") will also be entitled to additional issuances of Series D Preferred Stock in the event we achieve certain strategic and commercial milestones, as set forth in the Stock Purchase Agreement and summarized below. None of the following milestones were achieved:

- In the event that we received payment commitments of at least $8.0 million, of which at least $1.0 million must be in the form of upfront payments, through the signing of contracts involving Inovio AS' technology through September 30, 2006, we were required to issue an additional $2.0 million of Series D Preferred Stock to the shareholders of Inovio AS ("the Second Payment"). The value of each share of Series D Preferred Stock issued in connection with the Second Payment would have equaled the average of the closing price of our common stock as reported on the American Stock Exchange during the 30 day trading period immediately preceding the Second Payment date.

- In the event that we received payment commitments of at least $16.0 million (including the $8.0 million in payment commitments noted above), of which at least $2.0 million (including the $1.0 million in upfront payments noted above) must be in the form of upfront payments, through the signing of contracts involving Inovio AS' technology through September 30, 2006, we were required to issue an additional $1.0 million of Series D Preferred Stock to the shareholders of Inovio AS ("the Third Payment"). The value of each share of Series D Preferred Stock issued

16. Inovio AS Acquisition (Continued)

in connection with the Third Payment would have equaled the average of the closing price of our common stock as reported on the American Stock Exchange during the 30 day trading period immediately preceding the Third Payment date.

Under the purchase method of accounting, the total consideration as shown in the table below was allocated to Inovio AS' tangible and intangible assets and liabilities based on their estimated fair values as of the date of the completion of the Acquisition. The total consideration was as follows:

Fair value of Series D Preferred Stock issued(a)	$	7,904,494
Cash		3,000,000
Transaction costs		121,517
Total consideration	$	11,026,011

(a) There is no market price for the Series D Convertible Preferred Stock, thus the market price of our common stock was used in determining the fair value of the Series D Convertible Preferred Stock on the basis that such shares are convertible into common stock on a one-for-one conversion ratio and the dividend, participation and liquidation rights of the Series D Convertible Preferred Stock closely resemble our common stock.

The allocation of the above purchase price is as follows:

Fair value of net tangible assets acquired and liabilities assumed	$	487,417
Fair value of identifiable intangible assets acquired		7,382,000
Deferred tax liabilities		(1,134,000)
Goodwill		4,290,594
Total purchase price allocation	$	11,026,011

Inovio AS' results of operations for the period from the date of acquisition (January 25, 2005) through December 31, 2005, were included in our consolidated statement of operations for the year ended December 31, 2005. Identifiable acquired intangible assets include in-process research and development of $3.3 million, and an intangible asset related to acquired contracts and intellectual property of approximately $4.1 million. At the close of the acquisition, we determined that the acquired contractual relationships represented a valuable asset due to the expectation of future business opportunities to be leveraged from the existing relationship with each partner. We used the excess earnings method to value the contractual relationships, examining the economic returns contributed by the identified tangible and intangible assets of the acquired company, and then isolating the excess return attributable to contractual relationships. Under this method, the value of the contractual relationship was calculated as a function of:

- an estimated attrition rate of contracts as of the acquisition date;
- the expected future operating income generated by the contracts;
- the contributory asset charge that would be paid to the requisite operating assets from operating income; and
- a discount rate that reflects the level of risk associated with future cash flows attributable to the contractual relationships.

16. Inovio AS Acquisition (Continued)

Acquired contracts expected to generate future cash flows upon the date of acquisition included the acquired contractual relationships and the acquired Company's customer contracts which were expected to generate future market sales. We used projections to determine the base revenue projections related to the contractual relationships as well as the associated expenses. The cash flows generated by the contractual relationships represented a return on all of the assets employed in the generation of those cash flows, including tangible as well as identifiable intangible assets, consistent with the value and the relative risk of the asset. As part of this analysis, we determined individual rates of return applicable to each acquired asset or asset class, and estimated the effective "contributory asset charge" to be applied to the cash flows generated by the acquired contractual relationships. Contributory asset charges were made for returns related to the following: working capital, fixed assets, technology platform and assembled workforce. An effective tax rate of 40 percent was applied to the projected cash flows generated by the acquired contractual relationships. The calculated contributory asset charge was then applied to the expected future operating income generated by the surviving contracts to estimate the excess cash flow from the contractual relationships and then discounted to present value at a discount rate that reflected the amount of risk associated with the hypothetical cash flows generated. In valuing the contractual relationships, we used a discount rate of 43 percent. In accordance with SFAS No. 142, we determined a useful life for remaining contractual relationships of approximately 18 years. After employing this method, we then added the present value of the Section 197 tax benefits to arrive at the indicated fair value of the contractual relationships, as of the acquisition date of $4.1 million, to be amortized over 18 years.

The $3.3 million assigned to acquired in-process research and development ("IPR&D") was recorded as an expense in the consolidated statement of operations for the year ended December 31, 2005. We believe that electroporation is one of the key enabling technologies to make vaccines efficacious, practical and cost effective. A complete electroporation solution consists of three components: a pulse generating instrument; a line of pulse applicators; and a "payload" consisting of a drug, DNA vaccine, or gene that will typically be provided by a third party, but which is integral to the solution submitted for regulatory approval and ultimately marketed and sold. At the time of acquisition, the Company being acquired had a prototype of a pulse-generating instrument and pulse applicator (the "Technology Platform"); however, this Technology Platform had not yet reached economic viability and was estimated to require an additional $3.0 million investment to produce a product capable of being mass-produced. Further, prior to generating market sales the Technology Platform would be required to go through clinical trials with each drug, DNA vaccine, or gene with which it would be partnered. As of the date of acquisition, clinical trials had not started for any combination of a specific payload and the Technology Platform. The Technology Platform had no alternative future use, there were significant remaining costs associated with producing a product capable of being mass-produced, and the requirements for FDA approval prior to generating any market sales. In addition, we determined that future expense levels were significant and that the margins using a discounted cash flow method were insignificant. Based on these considerations, the Technology Platform was classified as IPR&D upon acquisition and valued using the royalty savings method. Under this method, the value of the technology is a function of the projected revenues attributable to the products utilizing the asset, the royalty rate that would hypothetically be charged by a licensor of the technology to a licensee, and an appropriate discount rate to reflect the inherent risk of the projected cash flows

16. Inovio AS Acquisition (Continued)

On December 31, 2007, the Company's wholly-owned Norwegian subsidiary Inovio AS transferred certain patent and other intellectual property rights ("IPR") to our wholly owned U.S. subsidiary Genetronics Inc. The value assigned to these rights was $1.9 million, which was determined by a valuation specialist in Norway. All Norwegian tax gains associated with this transfer of the patents and IPR was offset by prior year tax loss carry forwards. Subsequent to year-end, the Company changed the name of Inovio AS to Inovio Tec AS. Simultaneously, the Company incorporated a new Norwegian wholly-owned subsidiary under the name Inovio AS, for the purpose of organizing a research effort directed towards the development of specific cancer vaccine candidates. The Company expects funding for this program to be about $5.0 million over the next several years. In January 2008, all employees, employee agreements, lease agreements and fixed assets were transferred from Inovio Tec AS to Inovio AS.

17. Quarterly Financial Information (Unaudited and Restated, as indicated)

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. This quarterly information has been restated for, and as of the end of, all quarters of fiscal 2007 and the fourth quarter of fiscal 2006 from previously reported information filed on Form 10-Q, as a result of the restatement of our financial results as discussed in Note 2. The results of operations for any period are not necessarily indicative of the results to be

17. Quarterly Financial Information (Unaudited and Restated, as indicated) (Continued)

expected for any future period. Summarized unaudited quarterly data for the years ended December 31, 2007 and 2006, are as follows:

	Quarter Ended December 31, 2007	Quarter Ended September 30, 2007	Quarter Ended June 30, 2007	Quarter Ended March 31, 2007
		As restated(1)	As restated(1)	As restated(1)
Consolidated Statement of Operations:				
Revenue:				
License fee and milestone payments	$ 2,212,854	$ 136,870	$ 209,265	$ 234,489
Revenue under collaborative research and development arrangements	1,054,031	265,970	286,312	247,990
Grants and miscellaneous revenue	54,854	83,671	—	21,423
Total revenue	3,321,739	486,511	495,577	503,902
Operating Expenses:				
Research and development	1,866,322	2,335,378	2,907,836	2,516,411
General and administrative	3,266,767	3,177,723	2, 344,551	2,291,161
Total operating expenses	5,133,089	5,513,101	5,252,387	4,807,572
Loss from operations	(1,811,350)	(5,026,590)	(4,756,810)	(4,303,670)
Interest income	357,514	405,023	286,792	223,068
Other income	427,906	1,927,064	727,305	339,305
Net loss	(1,025,930)	(2,694,503)	(3,742,713)	(3,741,297)
Imputed and declared dividends on preferred stock	—	—	(8,244)	(15,091)
Net loss attributable to common stockholders	(1,025,930)	$ (2,694,503)	$ (3,750,957)	$ (3,756,388)
Amounts per common share—basic and diluted:				
Net loss	$ (0.02)	$ (0.06)	$ (0.09)	$ (0.10)
Imputed and declared dividends on preferred stock	—	—	—	—
Net loss attributable to common stockholders	$ (0.02)	$ (0.06)	$ (0.09)	$ (0.10)
Weighted average number of common shares—basic and diluted	43,812,905	43,699,683	40,674,947	37,694,634

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 and quarterly periods in 2007 to reflect certain accounting reclassifications, as described more fully in Note 2.

17. Quarterly Financial Information (Unaudited and Restated, as indicated) (Continued)

	Quarter Ended December 31, 2006	Quarter Ended September 30, 2006	Quarter Ended June 30, 2006	Quarter Ended March 31, 2006
	As restated(1)			
Consolidated Statement of Operations:				
Revenue:				
License fee and milestone payments	$ 810,290	$ 204,699	$ 171,062	$ 151,054
Revenue under collaborative research and development arrangements	199,489	254,137	232,351	276,230
Grants and miscellaneous revenue	521,887	116,993	259,277	270,709
Total revenue	1,531,666	575,829	662,690	697,993
Operating Expenses:				
Research and development	2,701,534	2,185,931	1,981,895	1,640,425
General and administrative	2,623,888	1,926,628	1,883,521	1,870,550
Total operating expenses	5,325,422	4,112,559	3,865,416	3,510,975
Loss from operations	(3,793,756)	(3,536,730)	(3,202,726)	(2,812,982)
Interest income	230,638	124,398	152,503	174,007
Other income	310,687	3,451	1,453	5,115
Net loss	(3,252,431)	(3,408,881)	(3,048,770)	(2,633,860)
Imputed and declared dividends on preferred stock	(1,867,170)	(31,706)	(34,423)	(72,365)
Net loss attributable to common stockholders	$ (5,119,601)	$ (3,440,587)	$ (3,083,193)	$ (2,706,225)
Amounts per common share—basic and diluted:				
Net loss	$ (0.10)	$ (0.11)	$ (0.10)	$ (0.09)
Imputed and declared dividends on preferred stock	(0.05)	—	—	—
Net loss attributable to common stockholders	$ (0.15)	$ (0.11)	$ (0.10)	$ (0.09)
Weighted average number of common shares—basic and diluted	34,902,998	30,902,644	30,568,369	29,621,372

(1) We have restated our previously issued consolidated financial statements for the year ended December 31, 2006 and quarterly periods in 2007 to reflect certain accounting reclassifications, as described more fully in Note 2.

18. Subsequent Events

The Company's short-term investments included $14.1 million and $13.6 million of auction rate securities issued primarily by municipalities as of December 31, 2007 and February 29, 2008, respectively. In early March 2008, the Company was informed that there was insufficient demand at

18. Subsequent Events (Continued)

auction (also known as failure to settle) for six of its auction rate securities. As a result, these affected securities are currently not liquid. However, the Company now earns a higher interest rate on these specific investments. In the event the Company needs to access the funds that are in an illiquid state, it will not be able to do so without the possible loss of principal, until a future auction for these investments is successful or they are redeemed by the issuer or they mature. At this time, management has not obtained sufficient evidence to conclude that these investments are impaired or that they will not be settled in the short term, although the market for these investments is presently uncertain. If we are unable to sell these securities in the market or they are not redeemed, then the Company could be required to hold them to maturity. The Company does not have a need to access these funds for operational purposes for the foreseeable future. The Company will continue to monitor and evaluate these investments on an ongoing basis for impairment or for the need to reclassify to long term investments.

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Exhibit 21.1

INOVIO BIOMEDICAL CORPORATION
Subsidiaries

Subsidiary Name(1)	Jurisdiction of Organization
Genetronics, Inc.	Delaware
Inovio AS	Norway
Inovio Asia Pte. Ltd.	Singapore

(1) In accordance with Instructions (ii) to Exhibit (21) to the Exhibit Table in Item 601 of Regulation S-K, Registrant has omitted from the above table one of its subsidiaries because such omitted subsidiaries, considered in the aggregate as a single subsidiary, does not constitute a significant subsidiary of registrant as of the end of the year covered by this report.

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Exhibit 21.1

INOVIO BIOMEDICAL CORPORATION Subsidiaries

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements (Form S-8 Nos. 333-142938, 333-136126, 333-120061, 333-100077, 333-58168; Form S-3 Nos. 333-140119, 333-134084, 333-131332, 333-123619, 333-118187, 333-116696, 333-111287, 333-108752 and 333-76738) of Inovio Biomedical Corporation and in any related Prospectuses of our reports dated March 12, 2008, with respect to: (1) the consolidated financial statements of Inovio Biomedical Corporation, and (2) the effectiveness of internal control over financial reporting of Inovio Biomedical Corporation, included in this Annual Report (Form 10-K) for the year ended December 31, 2007.

/s/ Ernst & Young LLP

San Diego, California
March 12, 2008

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Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Exhibit 31.1

Certification of CEO Pursuant to
Securities Exchange Act Rules 13a-15(e) and 15d-15(e)
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Avtar Dhillon, certify that:

1. I have reviewed this annual report on Form 10-K of Inovio Biomedical Corporation

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 14, 2008

/s/ AVTAR DHILLON

Avtar Dhillon
President and Chief Executive Officer

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Exhibit 31.1

Certification of CEO Pursuant to Securities Exchange Act Rules 13a-15(e) and 15d-15(e) as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Exhibit 31.2

Certification of CFO Pursuant to
Securities Exchange Act Rules 13a-15(e) and 15d-15(e)
as Adopted Pursuant to
Section 302 of the Sarbanes-Oxley Act of 2002

I, Peter Kies, certify that:

1. I have reviewed this annual report on Form 10-K of Inovio Biomedical Corporation;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15(d)-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

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

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control

Date: March 14, 2008

/s/ PETER KIES

Peter Kies
Chief Financial Officer

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Exhibit 31.2

Certification of CFO Pursuant to Securities Exchange Act Rules 13a-15(e) and 15d-15(e) as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

Exhibit 32.1

Certification Pursuant to
18 U.S.C. Section 1350,
As Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

In connection with the Annual Report of Inovio Biomedical Corporation (the "Company") on Form 10-K for the year ending December 31, 2007 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned, in the capacities and on the date indicated below, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 14, 2008

/s/ AVTAR DHILLON

Avtar Dhillon
President and Chief Executive Officer
(Principal Executive Officer)

/s/ PETER KIES

Peter Kies
Chief Financial Officer
(Principal Financial and Accounting Officer)

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Exhibit 32.1

Certification Pursuant to 18 U.S.C. Section 1350, As Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002