INOVIO BIOMEDICAL CORP
Form 10-K
March 16, 2007

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2006

OR

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

FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NO. 001-14888

INOVIO BIOMEDICAL CORPORATION

(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE (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 o No x

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

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 x No o

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

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

Large accelerated filer o Accelerated filer x Non-accelerated filer o

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

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, 2006 was approximately $63,899,267 based on $2.07, 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 38,176,204 as of March 8, 2007.

DOCUMENTS INCORPORATED BY REFERENCE

We have incorporated by reference into Part III of this Annual Report portions of our proxy statement for the 2007 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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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 UNDER THE HEADING RISK FACTORS; IN PART II, ITEM 7 UNDER THE HEADING 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.

PART I

ITEM 1. BUSINESS

OVERVIEW

We are a biomedical company whose technology platform is based on the science of electroporation. We are a leader in developing human therapeutic applications of electroporation, which uses brief, controlled electrical pulses to increase cellular uptake of useful biopharmaceuticals, with what we believe to be the industry s most extensive patent portfolio covering *in vivo* electroporation. To our knowledge, we were the first to commercialize laboratory electroporation equipment. We now develop medical applications of our electroporation technology, the MedPulser® Electroporation System, which delivers drugs or genes to treat cancer, infectious diseases, and protein deficiency diseases. We are focused on commercializing our Selective Electrochemical Tumor Ablation (SECTA) therapy and developing multiple DNA vaccines using our delivery platform for gene-based treatments. SECTA, our local ablation therapy for solid tumors, is designed for local treatment of solid tumors, selectively killing cancerous cells and minimizing cosmetic and functional impacts to healthy tissue typically treated around the tumor. We have sought to enhance our technologies through various licensing and collaboration agreements. With our partners, we are researching and developing products using our patented DNA delivery technologies for the prevention and treatment of serious and life-threatening diseases.

We are currently building two major franchises based on our MedPulser® Electroporation System: Oncology and DNA vaccines.

Oncology

For oncology, our therapy uses electroporation to enhance the local uptake of the generic cytotoxic drug bleomycin sulfate to achieve tumor cell death. Our system, which uses a pulse generator together with disposable needle applicators, delivers electrical pulses to tumors injected with the drug. We believe the distinctive feature of the system is the preservation of healthy tissue at the margins of the tumor. We anticipate the system may therefore afford advantages over surgery in preserving function and improving the quality of life for cancer patients who would otherwise face significant morbidity associated with cancer surgery. Our SECTA therapy is in Phase III clinical trials in the United States and Europe for the treatment of recurrent head and neck (H&N) cancer; and in Phase I/II for the treatment of recurrent breast cancer. In addition, we are conducting pre-marketing studies to support the commercialization of our SECTA system in Europe. Prior to commercial sales of our SECTA system in the European Union (EU), we are required to obtain, and already have obtained, a CE Mark, which is recognized internationally as a symbol of quality and compliance. Completion of the European pre-marketing studies will provide pharmacoeconomic data to be used to seek reimbursement, as well as provide additional efficacy and safety data and local experience with physicians who are thought leaders in Europe. This pre-marketing data is a vital component of a European commercial launch of the SECTA system and will represent an important milestone for us.

DNA Delivery/DNA Vaccines

As part of our MedPulser® product line, our efforts in tumor ablation are complemented by the development of other cancer therapies using electroporation therapy for the intracellular delivery of DNA-based treatments. To our knowledge, we were the first company to initiate a clinical study involving the use of electroporation technology to deliver therapeutic genes in human subjects, which we achieved in collaboration with investigators at the Moffitt Cancer Center in Tampa, Florida in December 2004. This investigation was approved by the U.S. Food and Drug Administration (FDA) and involves electroporating melanomas with DNA encoded to express particular cytokines in an attempt to stimulate immunity against the patient s tumor. In 2004, we extended our license with Vical, Inc. (Vical) (NASDAQ:VICL) to include

a worldwide license for the use of our electroporation technology together with Vical s naked DNA technology for their development of an HIV DNA vaccine. In 2004, we executed a major licensing deal with milestone and royalty payments with Merck & Co., Inc. (Merck) (NYSE:MRK) for the development of proprietary DNA vaccines for cancer and infectious diseases using electroporation. In January 2005, we acquired Inovio AS, a Norwegian company, expanding our patent portfolio in the area of intramuscular electroporation. Through the Inovio AS acquisition we also obtained a collaboration with the University of Southampton (Southampton), United Kingdom on a Phase I clinical study for the electroporation of a DNA vaccine for prostate carcinoma. Our DNA electroporation delivery technology is now being evaluated in four independent Phase I/II clinical trials together with Moffitt, Vical, Merck and Southampton, respectively. In January 2006, we also executed a collaborative commercialization agreement with Tripep AB (Tripep) (Stockholm:TPEP.ST) to co-develop a hepatitis C therapeutic vaccine, which is likely to result in another Phase I clinical trial this year. In November 2006, we executed another major non-exclusive license to our DNA delivery technology for intramuscular applications regarding certain therapeutic DNA vaccines with Wyeth Pharmaceuticals, a division of Wyeth (Wyeth) (NYSE: WYE).

In addition to our electroporation technology, we have acquired technology for controlling gene expression and for the delivery of DNA vaccines. Our GeneSwitch® technology is a genetically engineered form of the progesterone receptor that can regulate the gene expression of gene therapy vectors in a dose-dependent manner in order to trace amounts of a clinically approved anti-progestin. Our GeneSwitch® technology is currently licensed for research purposes to Invitrogen, Wyeth, Organon, GSK, LARNAX, Senomyx, and to Bayer Schering Pharma AG for the development of selected gene therapy products. Our DNAvax® polymer and lipid formulation useful for DNA vaccination is currently licensed for use with DNA vaccine technology by IDM Pharmexa-Epimmune and Innogenetics.

We believe that attempts to pioneer new therapies based on DNA have been hampered by the complexity, side effects, or lack of therapeutic response associated with other delivery mechanisms. Viral vectors, which are genetically engineered viruses used as carriers or vectors to deliver DNA to the cell, are complex and have posed concerns relating to toxicity. In addition to safety issues, viral vectors are difficult and expensive to manufacture. Lipid vectors share some of these same challenges. Other approaches such as the gene or particle gun have shown utility for certain applications. Because electroporation enhances the level of DNA delivery and gene expression observed with non-viral vectors and has proven efficient and safe in animal experiments, we have been developing MedPulser® DNA Delivery Systems for different target tissues and applications. By engineering different applicators and choosing appropriate electroporation parameters, we believe we can deliver sufficient volumes of DNA to muscle, tumor tissue, skin or the vasculature to generate levels of gene expression capable of producing clinically significant therapeutic or prophylactic responses. We believe such results would facilitate our existing attempts to promote DNA technologies as preferred therapies for cancer, infectious diseases including bioterrorism targets, protein deficiency diseases resulting from genetic defects, and vascular diseases.

MedPulser® Electroporation Instrument

Our MedPulser® electroporation system delivers controlled electrical pulses to facilitate the uptake of useful biopharmaceuticals. 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® electroporation instrument. The applicator sends information for that particular applicator s size and shape to the pulse generator, which automatically selects the appropriate treatment parameters. Several different electrode applicator configurations are currently available. The pulse generator is designed to allow for a wide variety of new electrode applicator configurations in order to provide accessibility to a broad scope of tumor types. 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® electroporation instrument. The commercial version of the MedPulser® electroporation instrument has been certified by Underwriter Laboratories (UL), an independent test laboratory as meeting international electrical safety requirements.

In the U.S. a product approval pathway negotiated with the FDA requires market approval of the MedPulser® and SECTA therapy through a pre-marketing approval application (PMA) granted by the Center for Devices and Radiological Health (CDRH). The FDA treats SECTA as a combination product with the mechanism of action related to the activity of the generic drug bleomycin sulfate. Consequently, the clinical trial design and review will be handled as a PMA with collaboration between CDRH and the Center for Drug Evaluation and Research (CDER) in the review of the clinical study. Due to the complexities of completing Phase I, II, and III clinical trials we are currently unable to estimate the length of time or cost involved in obtaining the required approvals from the FDA.

In Europe and Asia, we anticipate that the MedPulser® electroporation instrument will be regulated as a device. In the EU, the MedPulser® Electroporation System falls under the Medical Device Directive 93/42/EEC (MDD), meaning that prior to marketing the MedPulser® Electroporation System we are required to obtain the CE Mark for this device. This process includes the certification of our quality system to the requirements of the MDD. We have achieved CE Mark certification for the MedPulser® Electroporation System, which allows us to distribute it in the European community. In many EU countries, bleomycin sulfate is approved for intra-tumoral, intra-lesional, local, intramuscular or subcutaneous administration. As the administration of approved drugs outside the label indication may be at the discretion of the physician and hospital pharmacist, we cannot predict with absolute certainty whether additional regulatory approvals for the combined use of the drug with our system may be required in certain countries. The costs associated with any filings for such regulatory approvals cannot be reasonably determined at this time.

To our knowledge, we are presently the only U.S. company that has publicly announced that it has the capability to manufacture electroporation equipment in compliance with the U.S. and European Quality System Regulations. We also believe we are the only company participating in clinical trials using electroporation therapy for DNA delivery. Our competitors include several companies that either have rights to intellectual property related to electroporation devices, to electroporation methods, or to applications of electroporation.

We believe that our compelling asset base of intellectual property resulting in scientific and engineering accomplishments, combined with our clinical results to date, position us as a leader in both electroporation-based electrochemical ablation of solid tumors and in electroporation as a method of DNA delivery.

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 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 where improved drug or DNA delivery is important, we believe that our greatest opportunities lie in applying electroporation to the areas of oncology and DNA-based therapies (including immunotherapy).

Advancing our Product Pipeline

We currently focus our resources on the independent development of our SECTA product line, and aim to generate clinical data supporting commercialization from our current clinical program. Through conducting the European pre-marketing studies, our strategy is to provide the initial clinical and pharmacoeconomic (PE) data to support commercialization efforts by an appropriate global or regional partner, ideally with an established oncology device franchise. The initial product launch would therefore be based on the company s initial approved indications, to be followed by the partner s investment in additional applications.

We also focus our resources on the development of infectious disease vaccines and cancer immunotherapies. 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. We may choose to expand our programs and enlist the support of more partners to accelerate product development and commercialization.

Expand Market Opportunity

The market opportunity afforded by the initial H&N, skin, and breast indications, although substantial, does not represent the full potential of our SECTA therapy. Therefore, our plan is to identify additional market opportunities and development paths, including improvements to the applicator design, writing protocols and perhaps obtaining FDA approval for protocols addressing additional indications in order to substantially reduce the start-up time for a partner to pursue new applications. We have focused on activities that can create additional value without a significant adverse impact to our financial resources and staff. Considerable effort has gone into analyzing the market potential and path to commercialization, identifying opportunities including:

- palliation;
- laryngeal cancer;
- tumor margin treatment after surgical resection (adjuvant); and
- tumor size reduction prior to surgical resection (neo-adjuvant).

We are also actively pursuing refinements, the evaluation of potential enhancements to our core technologies and the exploration of additional 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 of specific genes in 2007 and 2008. See Business Objectives for further discussion of our corporate strategy and goals.

Business Objectives

We currently have the following business objectives:

1. Conclude patient enrollment of Phase III recurrent and second primary H&N cancer studies in the U.S. and EU;

2. Conclude the European pre-marketing clinical study of new and recurrent primary squamous cell carcinoma H&N (SCCHN) cancers to support the commercialization of our SECTA therapy using our MedPulser® electroporation system in the EU;

3. Conclude the European pre-marketing clinical study of primary and recurrent skin cancers to support commercialization of our SECTA therapy using our MedPulser® electroporation system;

4. Conclude patient enrollment in the Phase I/II breast cancer study to treat locally recurrent cancer after a mastectomy or partial mastectomy in the U.S. and EU;

5. Conclude a strategic global or regional license (e.g., European) with a partner for development and the marketing rights to the SECTA therapy for treating solid tumors;

6. Enter into further industry relationships for the use of our electroporation technology in the delivery of specific therapeutic genes; and

7. Initiate additional Phase I human clinical studies involving the use of electroporation with DNA, most likely in the areas of infectious disease and cancer.

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 infectious diseases. Our current independent development focus is on our novel SECTA technology. The table below summarizes progress in our independent, collaborative and out-licensed product development programs.

		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**
Therapeutic Drug Delivery	**Oncology**							
	H&N	**P**	**P**	**P**	**P**	IP	IP***	Inovio
	Cutaneous BCC & SCC	**P**	**P**	**P**	**P**		IP***	Inovio
	Melanoma	**P**	**P**	**P**	**P**			Inovio
	Kaposi s Sarcoma	**P**	**P**	**P***				Inovio
	Pancreas	**P**	**P**	IP				Inovio
	Liver	**P**	**P**	**P***				Inovio
	Breast	**P**	**P**	IP				Inovio
	Prostate	**P**	**P**					Inovio
	Hepatocellular Carcinoma	**P**	**P**					Inovio
	Lewis Lung Carcinoma	**P**	**P**					Inovio
	Non-Small Cell Lung	**P**	**P**					Inovio
	Fibrosarcoma	**P**	**P**					Inovio
	Glioma	**P**	**P**					Inovio
	Ovarian	**P**						Inovio
	Dermatology							Inovio
	Vitamin C	**P**	**P**					Inovio
	Warts	**P**	**P**					Inovio
	Vascular	**P**	**P**					Inovio
DNA Delivery Immunotherapy	Malignant Melanoma	**P**	**P**	IP				Moffitt/RMR
	Metatstatic Melanoma	**P**	**P**	IP				Vical
DNA Delivery Tumor-associated antigen therapeutic vaccines	HER-2 and CEA, unspecified cancer	**P**	**P**	IP				Merck
	Prostate Cancer	**P**	**P**	IP				Univ. of Southampton
	Unspecified Cancer	**P**						Merck
	Unspecified Cancer							IDM
DNA Delivery Infectious disease vaccine	**HIV Vaccine****	**P**	**P**	**P**				Pharmexa-Epimmune
	HBV Vaccine**	**P**	**P**	**P**				Innogenetics
	HCV Vaccine	**P**	**P**					Tripep/Inovio
	CMV Vaccine	**P**	**P**					Vical
	Unspecified Targets	**P**	**P**					Wyeth
	Biodefense Targets	**P**	**P**					US Army
	HCV Vaccine**	**P**	**P**					Innogenetics
	HPV Vaccine**	**P**	**P**					Innogenetics
	Cancer Vaccine**	**P**	**P**					IDM

P = Completed

IP = In Progress

* Efficacy studies conducted in North America with approval of selected clinics Investigational Review Boards (IRB) or in the EU by clinics Ethics Committees

** Acquired through Valentis acquisition in October 2006

*** Phase IV trial in EU only

Electroporation and Inovio s MedPulser® Instruments

Most drugs must enter through a cell membrane into a cell in order to perform their useful 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 MedPulser® electroporation instruments. The MedPulser® 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.

Selective Electrochemical Tumor Ablation (SECTA) Therapy System

Successful electrochemical ablation of tumors requires the presence of a sufficient extracellular concentration of the chemotherapeutic drug (i.e. bleomycin sulfate) as well as the generation of an electric field of appropriate strength in the targeted tumor mass to increase cell membrane permeability and thereby intracellular concentration of the drug. Consistent delivery of an electric field of minimum strength to the tumor cells, without unnecessarily risking damage to the surrounding healthy tissues by delivery of fields exceeding a critical maximum value, is one key to the effectiveness of our MedPulser® electroporation instrument.

The principle operation of our MedPulser® electroporation instrument is the creation, within the confines of a series of conductive needle-electrodes arranged in a six-needle hexagonal array, of a pulsed electric field of sufficient strength to induce a transient increase in the permeability of membranes of the cells enclosed within the field. Our MedPulser® electroporation instrument supplies a series of precisely timed, short duration pulses of a very specific voltage to pairs of the applicator needle-electrodes and automatically sequences these pulses among the pairs of opposed needles comprising the needle array. This sequencing of pulses assures complete and uniform coverage of the electric field within the needle array and complete and uniform electroporation of the cell membranes.

Our SECTA therapy consists of our MedPulser® electroporation system, which enhances local cellular uptake of useful biopharmaceuticals, in conjunction with a designated chemotherapeutic agent called bleomycin sulfate. SECTA has been specifically designed to destroy malignant tissue without harming normal healthy tissue.

The Medpulser® electroporation system has two components: (1) a pulse generator that creates the electric field; and (2) a sterile, disposable electrode applicator for single patient use. The applicators presently used contain needle electrode arrays that are inserted into the tumor tissue. The applicators vary in needle length, needle gauge, electrode needle spacing, tip angle and handle configuration to allow the physician to access a wide range of tumors. New configurations of electrode applicators have been contemplated for future development to address future customer requirements.

The SECTA therapy is intended to provide physicians with an easy-to-use alternative to surgery to provide local tumor control. Surgery is a clinical tool frequently used to remove solid tumors, but can result in disfigurement and loss of function. We believe our SECTA therapy is highly selective and effective in killing cancerous cells and can minimize or avoid detrimental outcomes that can arise from surgery. In doing so, it may improve the patient s quality of life and reduce treatment and hospitalization costs.

Phase III Studies

We are enrolling patients in two Phase III pivotal studies to evaluate the use of our SECTA system as a treatment for recurrent and second primary squamous cell carcinoma of the H&N (SCCHN). The trials have sites in North America, the EU and the rest of the world, and are divided by tumors that are anterior and posterior to the tonsillar pillar. Both protocols compare our SECTA therapy to surgery in patients with resectable recurrent or second primary SCCHN. The primary endpoint of the study is to demonstrate that patients treated with electroporation therapy have superior preservation of function (e.g. eating in public, diet, and talking) compared with those who undergo surgery. Secondary endpoints include local tumor control and survival (with the goal of showing non-inferior results compared to surgical treatment) as well as safety and pharmacoeconomic advantage.

In late 1997, the FDA granted us clearance to initiate multi-center Phase II clinical trials in the United States utilizing our technology in combination with bleomycin sulfate (now referred to as the SECTA therapy) to treat recurrent squamous cell carcinoma of the H&N in late stage patients who had failed conventional therapies such as surgery or chemotherapy. We also obtained similar clearance from the Canadian Health Protection Branch to initiate the Phase II trials in Canada. Two Phase II protocols were initiated in January 1998. The first Phase II study was a single crossover controlled study evaluating the effectiveness of SECTA with bleomycin sulfate to treat tumors that failed an initial bleomycin sulfate-alone treatment. The second Phase II protocol was a single arm study that evaluated the effect of SECTA with bleomycin sulfate as the only treatment.

Twenty-five patients (37 tumors) were enrolled in the crossover-controlled study and initially received bleomycin sulfate treatment alone without electroporation. None of the tumors treated in this manner showed a complete response1 and only one tumor demonstrated a partial clinical response2. Seventeen of these patients subsequently had lesions treated with bleomycin sulfate and EPT. Of the 20 lesions treated, 55% achieved an objective clinical response3. This provided convincing evidence of the enhancing ability of our SECTA therapy to ablate tumors with the combination of bleomycin sulfate and electroporation.

In the open-label Phase II (single arm) study, all patients received full bleomycin sulfate and EPT as their initial treatment. Among the 25 patients (31 tumors) treated, 58% achieved an objective clinical response. This second Phase II trial also confirmed the results of the first Phase II trial in which patients first received bleomycin sulfate alone and then were crossed over to receive SECTA.

In a similar open-label single arm study conducted in France, 56% of lesions achieved an objective clinical response consistent with the North American results.

More recently, market seeding trials in the EU evaluated bleomycin sulfate and EPT for localized primary or recurrent oral cavity squamous cell carcinoma. Sixteen of the 20 patient tumors (80%) had no evidence of cancer cells by histopathology assessment four weeks after treatment, further validating the potential of EPT as a primary local treatment for H&N cancer.

The results of these H&N cancer studies are provided in the table below.

Study	H&N Cancer Type/Treatment	# Patients	# Tumors	Objective Tumor Response(3) Responding Tumors	Non-Responding Tumors
Phase I/II North America	Advanced Bleo-EPT	10	10	8(80%)	2(20%)
Phase II Study(1) North America	Advanced Bleo-alone	25	37	1(3%)	36(97%)
Phase II Study(1)(cross-over) North America	Advanced Bleo-EPT	17	20	11(55%)	9(45%)
Phase II Study(2) North America	Advanced Bleo-EPT	25	31	18(58%)	13(42%)
Phase II Study(3) EU	Advanced Bleo-EPT	12	18	10(56%)	8(44%)
Market Seeding EU	Primary and Early Recurrent Bleo-EPT	20	20	16(80%)	4(20%)

(1) Complete response means that no sign of the tumor is present.

(2) Partial response is > 50% reduction in tumor volume.

(3) Objective tumor response includes complete and partial responses to treatment.

Phase I/II Studies

We are currently enrolling patients in our Phase I/II study to treat locally recurrent breast cancer after a mastectomy or partial mastectomy using our SECTA therapy. The ultimate goal beyond the primary objective of demonstrating safety in this Phase I/II study is to establish SECTA as a viable alternative to surgery for recurrence and can be considered an alternative to mastectomy (i.e. to preserve breasts). Recurrent breast cancer is often responsive to therapy and patients with local-regional disease including chest wall recurrences may become long-term survivors with the appropriate therapies. However, chest wall recurrences are problematic for the surgical oncologist to remove or for the medical oncologist to effectively treat with systemic chemotherapy. For this reason, there is a significant unmet clinical need for a new approach.

The primary endpoint of the Phase I/II breast cancer study is to determine the safety profile of the MedPulser® electroporation therapy in conjunction with intralesionally-injected bleomycin sulfate for the treatment of cutaneous and subcutaneous metastatic or locally recurrent breast cancer. The secondary endpoints are to verify response by histology and to initially assess tumor response rates. It is our goal to complete enrollment of up to 12 patients in the first quarter of 2007.

Pre-Marketing Studies

We are enrolling patients in two pre-marketing European clinical studies, one for patients with primary or recurrent SCCHN and one for patients with primary or recurrent cutaneous or subcutaneous tumors. Both studies are consistent with the intended use of the SECTA system and are designed to support commercialization in the EU. Prior clinical trials supported the safety and performance of the SECTA system for the treatment of these tumors, which resulted in securing the CE Mark. The European clinical studies are designed to:

- document the clinical and pharmacoeconomic benefits of the SECTA system in support of sales, with coding and reimbursement within the EU;
- establish centers of excellence to facilitate early adoption and sales;
- create a reference and customer base among key opinion leaders for a targeted pan-European commercial launch; and
- generate additional clinical data to support or supplement applications and approvals in North America.

Each study is enrolling approximately 80-100 patients at about 60 hospitals located in the U.K., Germany, Italy, France, Austria, and other western European countries. The studies will evaluate SECTA s pharmacoeconomic impact on the cost of operative and post-operative care. It will also examine patients quality of life, and local tumor control within the SCCHN study group. This data will help to define the overall benefits of the SECTA system for the treatment of SCCHN relative to the standard of care, which is often surgery and frequently compromises a patient s ability to speak or swallow and may be grossly disfiguring. The European studies are restricted to the treatment of recurrent SCCHN and therefore differ from the current U.S. Phase III clinical trials, which are controlled two-armed trials for the purpose of collecting clinical data to support the filing of market applications in the U.S.

In late 1997 and early 1998, we received regulatory approval to initiate clinical trials for H&N cancer, metastatic cancer of the liver, pancreatic cancer, metastatic melanoma and kaposi s sarcoma and to initiate an expanded metastatic melanoma study. These trials involved treating multiple lesions with bleomycin sulfate and electroporation together and control lesions treated with bleomycin sulfate alone on each patient. The overall results of these cutaneous cancer studies are provided in the table below.

		bleomycin sulfate-Electroporation Tumor Response		**bleomycin sulfate-alone Tumor Response**	
Study	**# Patients**	**# Lesions**	**Objective Response**	**# Lesions**	**Objective Response(1)**
Melanoma	44	178	141(79%)	61	13(21%)
Basal Cell Carcinoma (BCC)	25	64	64(100%)	8	1(13%)
Kaposi s Sarcoma (KS)	5	13	13(100%)	11	6(55%)

(1) Objective tumor response includes complete and partial responses to treatment.

The overall average tumor response rate following electroporation with bleomycin sulfate in cutaneous and subcutaneous cancer was 86% (ranging from 79% for metastatic melanoma to 100% for basal cell carcinoma and kaposi s sarcoma compared with an overall tumor response rate of 25% for bleomycin sulfate-alone treated lesions (ranging from 13% for basal cell carcinoma, 21% for metastatic melanoma to 55% for kaposi s sarcoma cancer).

These trials were initiated to demonstrate the SECTA system s safety and performance in treating a variety of solid tumors in support of CE Marking of the system. We achieved the CE Mark certification in March 1999. To date, the SECTA system is CE marked as an electroporation device indicated for the

treatment with bleomycin sulfate of H&N cancer and cutaneous and subcutaneous cancers. This allows us to market our SECTA system within the countries of the European Economic Area (EEA), which includes all countries of the European Union.

SECTA Commercialization and R&D

Our research and development efforts in the field of oncology focus on preparing for a strategic alliance with a major partner in oncology that will market, sell and distribute the SECTA system in the major territories (i.e. North America, Europe and Asia). We expect that the company would receive upfront and milestone payments and royalties on the sales of the devices by the commercial partner. It is possible that we might manufacture and supply devices to the partner. If we do so, then we would expect to derive additional income from the sale of the devices to the partner at an agreed upon transfer price at which the Company would recover the cost of goods for manufacturing the product and related overheads as well as receive a negotiated profit. Preparations for a strategic alliance include the organization and summarization of engineering, pre-clinical and clinical data and records to enable prospective partners to carry out appropriate due diligence.

In addition to our work in H&N cancer, we plan to use our SECTA system to deliver bleomycin sulfate for the treatment of other cancers. We are currently assessing our competitive advantage for the treatment of other cancers and the size of markets that we could potentially serve. Extension of our SECTA system to additional indications is expected to involve pre-clinical and engineering work regarding the treatment of additional cancer types and the design and manufacture of new types of electrode applicators, such as a specialized applicator for laryngeal cancer. We intend to develop second-generation electroporation devices for cancer treatment including devices that minimize muscle contractions and a device for treating deep-seated tumors, such as prostate tumors. We intend to continue to strengthen our intellectual property position in the oncology area by pursuing patent protection of any new material inventions. We believe these investments should add value to our opportunity and enhance the valuation of any partnership that we may enter relating to our SECTA program.

DNA Vaccines and Immunotherapies

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.

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 involve license agreements with Wyeth, Merck and Vical in which these companies are supporting the development and registration of the therapies using our devices. This strategy of utilizing development partners distinguishes the DNA franchise from that of the oncology franchise in which we are currently sponsoring the development efforts. 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.

MedPulser® DNA Delivery Systems

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 have been the limitations associated with current delivery systems. Alternative approaches based on the use of viruses and lipids are complex and expensive, have shown inconsistent effectiveness, 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 levels of gene expression considered suitable for clinical development.

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 and SECTA therapy described before. 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. In addition to the MedPulser® DNA Delivery System we are also testing a related DNA electroporation 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.

For DNA delivery to tumor cells we use a device that is similar to that used for SECTA in that it uses the same type of six needle applicators and a similar electrical field strength. The system is termed the MedPulser® DNA Electroporation System. 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.

Cancer Therapies

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 nontoxic 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, which plasmids, upon uptake into cells, direct the production of the encoded immunostimulatory proteins. We have taken this approach one step further, following injection with electroporation. Electroporation enables the entry and significant uptake of plasmid DNA into the tumor cells, ultimately leading 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 clinical trial sponsored by the H. Lee Moffitt Cancer Center using our MedPulser® DNA Electroporation System to deliver 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 open-label study, pDNA encoding IL-12 is delivered directly to tumors in patients with malignant melanoma through electroporation using our MedPulser® DNA Electroporation System.

In July 2005, we announced along with our partner Vical Inc., the initiation of a human Phase 1 clinical study of an investigational method of delivering 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.

In November 2006, we granted VGX Pharmaceuticals (VGX) a world-wide non-exclusive license to our DNA delivery technology for intratumoral delivery of a proprietary gene to control the growth of melanoma and other cancers. This study is currently in the pre-clinical stage.

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. 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. 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. 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 1 trial will evaluate the safety, tolerability and immunogenicity of the vaccine. Further development may lead to additional milestone and royalty payments.

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.

DNA Vaccines for Infectious Diseases

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

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. A need for 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 gene delivery system for gene-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 genes 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. Initiation of a Phase I clinical trial in healthy volunteers is expected to begin in 2007 and will be performed 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 get a 33% ownership in the overall product with the option to increase this to 50% after the completion of the Phase I 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 DNA Vaccine and Immunotherpy Delivery below.

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 to 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 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 gene 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 gene delivery system for gene-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 classic gene therapy is the induction of an unwanted immune response to the transgene product. 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 basic research and limited opportunities in the areas of stem cells, *ex-vivo* applications and RNAi.

PARTNERSHIPS AND COLLABORATIONS

Therapeutic Drug Delivery

On September 20, 2000, the University of South Florida (USF) Research, Inc. granted us an exclusive worldwide license to its rights for certain patents and patent applications generally related to needle electrodes, for which we had jointly developed with USF. The terms of the exclusive license include a royalty to be paid to USF based on net sales of products under the license. As of December 31, 2006, no royalties had accrued as no sales were generated from this product. In connection with the acquisition of this exclusive license, we issued 37,500 shares of our common stock and warrants to purchase 150,000 shares of our common stock at $9.00 per share (some of which will vest subject to the occurrence of specified milestones to USF and its designees, Drs. Richard Heller, Mark Jaroszeski, and Richard Gilbert).

DNA Vaccine and Immunotherapy Delivery

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 November 2006, we also granted VGX a world-wide non-exclusive license to our DNA delivery technology for intratumoral delivery of a proprietary gene to control the growth of melanoma and other cancers. Under the terms of the agreement, we will receive a license fee and payments based on successful completion of clinical and regulatory milestones. We will exclusively supply VGX with electroporation devices for the therapy included in the license agreement and we will receive royalties on the sale of products covered by the license.

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, and rights under existing license agreements with IDM Pharma Inc., Innogenetics and Pharmexa AS. Innogenetics and Pharmexa have completed separate Phase I clinical trials of DNA vaccines using the DNAvax® polymer delivery system.

In July 2006, we announced that we extended our license with 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 HCV DNA vaccine using electroporation. Under the terms of this agreement, Inovio has pledged certain electroporation equipment toward the Phase I 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. The initial Phase I clinical study is designed to determine the safety of the DNA vaccine in normal healthy volunteers and is expected to begin in 2007. If Inovio decides not to continue to support the co-development, the Company 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 Genetronics Biomedical Corporation, now Inovio Biomedical Corporation, 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, Inovio is eligible for milestone and royalty payments if certain development goals and commercialization of the device are achieved by Merck.

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, will investigate 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 this Phase I/II open-label study, plasmid DNA encoding a prostate tumor antigen is delivered directly to skeletal muscles in patients with recurrent prostate cancer either by simple injection or using our proprietary electroporation technology.

In January 2005, we acquired privately-held Inovio AS, a Norwegian company. Inovio AS s use of electroporation for gene therapy and DNA vaccines complemented our existing electroporation therapy program. The acquisition expanded our intellectual property in electroporation and included the Phase I/II DNA vaccine clinical trial in the U.K. mentioned above.

In October 2004, we announced an agreement with Vical wherein Vical licensed our DNA delivery technology for use with HIV and melanoma (using 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 vaccine and therapeutic DNA technology.

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. In May 2005, we announced that Merck exercised an option for a non-exclusive license for an additional antigen to be used with our DNA delivery technology, which is being developed for use with certain of Merck s DNA vaccine research 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 gene 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.

Therapeutic Drug Delivery

The primary front line treatment of many solid tumors is surgical resection. Surgeons will often remove or resect an area outside of the obvious tumor mass to ensure that they have excised all of the cancerous tissue. This can result in the loss of function and appearance of the surrounding tissues and organs, reducing the patient s quality of life. Recent advances in non-surgical forms of tumor ablation, such as cryoablation, microwave and high frequency radio ablation therapy, fail to meet the clinical need to preserve normal healthy tissue. Given the number of patients with solid tumors and the demand for improved outcomes and reduced morbidity and cost, we believe that there will be significant demand for our SECTA system by surgical oncologists and patients once the technology is commercially available.

We aim to market our SECTA system to deliver chemotherapeutic agents, such as bleomycin sulfate, for the treatment of cancer. We believe that electroporation therapy can address many diseases, but we have chosen to initially focus our commercialization efforts on oncology s significant unmet medical needs. Scientists are still learning about cancer and current therapies are less than 100% effective; consequently, there is significant room for improvement in cancer treatment. Our SECTA system provides an excellent fit with the current approach in cancer care and the objectives of society, managed care and health care providers. We are initially targeting those indications for which current treatment modalities result in a low quality of life and external deformity or those which have very high mortality rates. Specialized applicator concepts are being designed which will allow SECTA to treat other solid tumor cancers with a minimally invasive procedure. In parallel with the objectives of managed care companies and health care providers, the MedPulser® equipment and the disposable applicators are being priced competitively given the relative advantages of our SECTA system over other treatment modalities. Additionally, we are conducting pharmacoeconomic studies to provide support for the relative cost/benefit relationship of the treatment.

Based on the performance of our electroporation technology and the existing unmet clinical need, we have identified an initial number of disease targets and settings where we feel that our SECTA system can become an integral part of the tumor ablation paradigm, including:

- as an alternative to disfiguring surgery for primary and recurrent H&N cancer;
- for treatment of cutaneous tumors such as metastatic melanoma, basal cell carcinoma or squamous cell carcinoma, primary and secondary where surgery would be disfiguring;
- to address recurrent breast cancer to prevent mastectomy and to treat chest wall lesions;
- adjuvant to surgical resection of large tumors such as large H&N cancers that have a high potential for recurrence and exceed the limits of SECTA and require surgery as the only therapy option;
- neo-adjuvant use for tumor size reduction prior to resection (for example, primary breast tumor size reduction for conservation surgery rather than mastectomy); and
- palliation for tumors such as widespread malignant melanoma to reduce morbidity.

These are significant markets for commercialization with the existing product line. Future technology developments (e.g., endoscopy) could open additional markets for development of the technology (e.g., in prostate or pancreatic carcinoma). We anticipate that a commercial partner would leverage our existing device technology in the future development of product enhancements.

DNA Vaccine & Immunotherapy

We have prioritized our efforts after assessing different market opportunities based on an evaluation of technology risk, market size and partner interest in DNA vaccines. Oncology applications represent the best market opportunities 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 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 or can be applied in therapeutic settings such as cancer, hepatitis C or HIV infection. For these applications, our scientists believe that DNA vaccines may offer an improvement over classical 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.

The gene therapy market includes treatment of single gene defects as well as complex polygenic diseases such as cancer and vascular diseases. Examples of markets for single gene defects include hemophilia, sickle cell anemia, and EPO deficiency. For sickle cell anemia, often considered one of the most prevalent genetic diseases, there is presently no effective and sustainable treatment available. EPO deficiency affects cancer patients undergoing chemotherapy and patients with chronic kidney failure, among others.

COMPETITION

The primary front line treatment of solid tumors involves surgical resection and/or radiation to debulk and control tumor growth prior to initiating systemic therapy with chemotherapeutic agents. Because of the concern of microscopic disease in the tissue surrounding a tumor and that it is often difficult or impossible for surgeons to determine the border, or margins, between healthy and diseased tissue, surgeons will often remove, or resect an area outside of the obvious tumor mass to ensure that they have excised all of the cancerous tissue. This can result in the loss of function and appearance of the surrounding tissues and organs, reducing the patient s quality of life. Examples include the loss of speech from resection of tumors on the tongue or larynx or loss of erectile function from resection of the prostate. Recent advances in non-surgical forms of tumor ablation, such as cryoablation, microwave and high frequency radio ablation therapy, fail to meet the clinical need to preserve normal healthy tissue. Given the desire for improved outcomes in the surgical resection of a large number of solid tumors such as those of the H&N, skin, pancreas, breast and prostate, we believe that there will be significant demand for our technology from patients and surgical oncologists.

Current Treatment Practices

Surgery

In 90% of cases, the primary treatment for localized and operable tumors or lesions is either surgical resection alone or in combination with other modalities such as radiation therapy. Given the ability to cut an appropriate margin around the tumor in order to avoid recurrence from microscopic disease populating the periphery of the tumor mass, surgery is highly effective for early stage cancers. However, accessibility of a tumor often prevents the use of surgery or limits the margin that can be removed, especially at sites such as the tongue where the loss of tissue results in the loss of critical functions such as speech. The drawback to resecting tissue is potential disfigurement or debilitating effects on organ function. Surgery also requires additional cost in the form of hospitalization and post-operative care.

Radiation Therapy

Radiation therapy s high-energy rays generated by an external machine or by radioactive materials placed directly into or near the tumor are used to damage and stop growth of malignant cells, which are more sensitive to the effects of radiation. Radiation is often used in combination with surgery and chemotherapy. In cases where a tumor is inoperable or unresponsive to chemotherapy, radiation is often used palliatively to limit the complications of disease progression. Radiation therapy has a number of significant side effects, in that it damages healthy cells surrounding the target area and takes several weeks to administer. It may also be costly due to the number of procedures and cost of administration.

Chemotherapy

Post-surgery, or in cases where surgery is contraindicated, chemotherapy is often used to treat systemic disease and may frequently be combined with radiation therapy. Typically it is used under the following circumstances:

- when cancer is disseminated requiring treatment of systemic or metastatsic disease;
- where the prognosis for local regional disease is poor due to the likelihood of disease progression;
- where surgery is contraindicated e.g. certain liver or pancreatic carcinoma; and
- for palliation, to achieve tumor shrinkage to ameliorate tumor symptoms or complications.

The cytotoxicity of many existing anti-cancer drugs is well proven, but there are other undesirable proven side effects including alopecia (loss of hair), nausea, vomiting, myelosuppression and in some cases drug resistance.

Surgery and radiation cannot be used where treatment poses a risk to nearby nerves, blood vessels, or vital organs. All of these practices have limited efficacy in treating cancers of certain organs, such as the pancreas.

Alternative Treatments

Radio Frequency Ablation

This modality uses radio frequency energy to heat tissue to a high enough temperature to ablate it, or cause cell death. An ablation probe is placed directly into the target tissue. An array of several small, curved electrodes is deployed from the end of the probe. Once sufficient temperatures are reached, the heat kills the target tissue within a few minutes. This treatment has been proven efficacious in treating some solid tumors but suffers from not being tumor specific in destroying healthy as well as malignant tissue.

Photodynamic Therapy

Photodynamic therapy (PDT) uses intravenous administration of a light-activated drug that accumulates in malignant cells. A non-thermal laser is used to activate the drug, producing free radical oxygen molecules that destroy the cancer. PDT has low risk of damage to adjacent normal tissue, the ability to re-treat, and can be used concurrently with other treatment modalities. A major side effect of PDT is patient photosensitivity that can last up to eight weeks. Other side effects include nausea and vomiting. This method is limited by the shallow depth of penetration of the laser light which makes it more applicable to surface lesions on the skin or esophagus.

Cryoablation

Cryoablation is a technique being used to treat liver, kidney, prostate, and breast cancer. This method uses liquid nitrogen filled probes inserted into the tumor mass with image guided surgery to freeze cancer cells. Necrosis (cell death) occurs and the dead cells are naturally sloughed off into the body. Cryoablation has been most commonly adopted for use in treating prostate carcinoma where surgery can often lead to impotence. The technology is claimed to limit nerve damage in the prostate allowing for the retention of bladder and sexual function. Therefore, it may afford advantages over surgery and brachytherapy, as described below.

Brachytherapy

Brachytherapy involves the local implantation of radioactive seeds into or near a tumor mass. It has been most widely used in prostate and breast carcinoma *in situ*. The seeds decay over time resulting in the local destruction of malignant cells. The problem with brachytherapy, in addition to the concomitant destruction of nascent healthy tissue, is the investment and training required to administer the therapy. Recent reports also suggest that the therapy may not produce durable responses (i.e., long term cures). Consequently, brachytherapy does not appear to be growing in acceptance in the marketplace.

Biological Therapy or Immunotherapy

This treatment encompasses many approaches focused on invoking an immune response against a cancer, including vaccine-based treatments and treatments using monoclonal antibodies. Introgen Therapeutics, Inc. (NASDAQ:INGN) is involved in a Phase III study involving the use of an adenoviral vector to deliver a p53 gene to H&N cancers. While a similar therapy is available commercially in China, it is not approved in the US. Recent reports suggest that the therapy, which attempts to restore normal cell death activity to tumors through the introduction of the p53 gene, may only be effective if combined with other modalities such as radiation.

The use of monoclonal antibodies as therapeutic agents has had a dramatic impact on the treatment of certain tumors. When the antibodies target growth factor receptors required for tumor cell growth, they can often block the stimulation needed for cell growth and/or cause antibody-mediated cell killing of the tumor cell. Thus products like Herceptin®, Erbitux®, Rituxin® and Avastin® have proven beneficial especially when used in combination with a chemotherapeutic drug regime. The impact to local ablation therapies will most likely stem from improved tumor control that will reduce the incidence of recurrence, and not in the front line therapy for primary cancers for which surgery is the current therapeutic mainstay.

The use of vaccination has long held interest as another potential modality that could prove beneficial in treating and limiting systemic disease. The problem has been that tumors may not display antigens unique to the tumor cell that the immune system can use to specifically target for selective destruction of malignant tissue and tumors over-express cellular products that the immune system ignores due to a process called tolerization wherein the immune system is educated not to recognize self antigens early in development. As a result, it has proven difficult to use conventional vaccination strategies to break or

overcome tolerance and generate immunity against tumor cells. However, the use of DNA vaccines with electroporation may overcome this barrier, as described below.

The main competitive technologies in the area of DNA delivery are the following:

- Viral DNA delivery;
- DNA delivery via ballistics;
- Lipid DNA delivery; and
- The injection of naked DNA.

Both for DNA vaccines and gene therapy, effective DNA delivery technologies are crucial. 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 700 gene therapy and DNA vaccine clinical trials started in the U.S. to date, none have progressed to regulatory approval. We believe that the DNA delivery problem must be solved if the promise of gene therapy and DNA vaccines are to be fulfilled.

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. However, when naked DNA injection is followed by electroporation of the target tissue, transfection is significantly greater with resultant gene expression generally enhanced 10 to 1000-fold. This increase makes many gene therapy and DNA vaccination projects feasible without unduly compromising safety or cost.

In December 2004, the first patient was treated with electroporation therapy and DNA and we have initiated, together with our partners, additional Phase I clinical trials using our electroporation therapy and DNA technology. 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 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.

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. This CE Mark clears the MedPulser® Electroporation System for sale in the European Economic Area which includes the European Union.

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, where 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® Electroporation 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® Electroporation 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 in a clean room in our manufacturing facility.

REVENUE AND INTEREST AND OTHER INCOME

The following table provides the revenue obtained from licensing and research and development agreements and interest and other income generated by us for the past three fiscal years. 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. See further disclosures in Item 7. Management s Discussion and Analysis and in the Consolidated Statements of Operations.

	Year Ended December 31, 2006	December 31, 2005	December 31, 2004
License fee and milestone payments	$ 1,337,105	$ 2,563,283	$ 214,351
Revenue under collaborative research and development arrangements	962,207	1,492,145	945,591
Grants and miscellaneous revenue	1,168,866	1,411,825	7,157
Interest and other income	867,070	210,118	247,555

We, like many biomedical companies, devote a substantial portion of our annual budget to research and development. Research and development expenses totaled $8.5 million, $11.5 million, and $6.5 million for the years ended December 31, 2006, 2005 and 2004, respectively. These amounts far exceed revenue from research arrangements and contribute substantially to our losses.

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, 2006, 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 medically important substances to the interior of cells in various body tissues such as a patient s muscle, skin, and other organs (by electroporation.)

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).

Presently, the company s primary focus is on oncology and gene therapy/delivery, with particular emphasis in H&N cancer, skin cancer, liver cancer, and breast cancer. For example, 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 are activated simultaneously after being placed in such tissue along with the substance being electroporated, and then applying an electric pulse. Likewise, in-licensed patent 6,528,315 claims methods of electroporation of DNA to tumor cells in a broad manner.

Integral with oncology, gene therapy/delivery also 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 and to methods of implanting macromolecules into living cells of a patient by electroporation. Likewise, 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. Additionally, other of the company s patents protect the company s 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 with claims directed to apparatuses and methods for the electroporation of tissues are generally applicable to oncological applications.

The company also has 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.

With respect to vascular, transdermal, and *ex vivo* applications of electroporation technology, the company s patent portfolio is also active. 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 August 8, 1979, under the laws of British Columbia, Canada, as Genetronics Biomedical Ltd. On June 15, 2001, we completed a change in our jurisdiction of incorporation from British Columbia, Canada, to the state of Delaware. On March 31, 2005, we changed our corporate name from Genetronics Biomedical Corporation to Inovio Biomedical Corporation.

Our principal executive offices are located at 11494 Sorrento Valley Road, San Diego, California 92121-1318, and our telephone number is (858) 597-6006. Effective April 4, 2005, our American Stock Exchange 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 8, 2007, we employed 33 people on a full-time basis and 6 people under consulting and project employment agreements. Of the combined total, 24 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.

IF WE ARE UNABLE TO DEVELOP COMMERCIALLY SUCCESSFUL PRODUCTS, INCLUDING OUR MEDPULSER® ELECTROPORATION SYSTEM IN VARIOUS MARKETS FOR MULTIPLE INDICATIONS, PARTICULARLY FOR THE TREATMENT OF H&N CANCER, OUR BUSINESS WILL BE HARMED AND WE MAY BE FORCED TO CURTAIL OR CEASE OPERATIONS.

Our ability to achieve and sustain operating profitability depends on our ability to successfully commercialize our MedPulser® Electroporation System in various markets for use in treating solid tumors, particularly for the treatment of H&N cancer, and other indications, which depends in large part on our ability to commence, execute and complete clinical programs and obtain regulatory approvals for our MedPulser® Electroporation System. In particular, our ability to achieve and sustain profitability will depend in large part on our ability to commercialize our MedPulser® Electroporation System for the treatment of H&N cancer in Europe and the United States. While we have achieved CE Mark, which applies to Europe for our MedPulser® Electroporation System for use in treating solid tumors; the products related to the CE Mark have not yet been commercialized. We have not yet received any regulatory approvals to sell any of our products in the United States and further clinical trials are still necessary before we can seek regulatory approval to sell our products in the United States for treating solid tumors. We cannot assure you we will receive approval for our MedPulser® Electroporation System for the treatment of H&N cancer or other types of cancer or indications in the United States or in other countries or, if approved, that we will achieve significant level of sales.

We have started additional clinical studies for different indications, such as breast, and are also in the pre-clinical stages of research and development with 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.

We cannot assure you that we will successfully develop any products. If we fail to develop or successfully commercialize any products, we may be forced to curtail or cease our operations. Additionally, much of the commercialization efforts for our products must be carried forward by a licensing partner. We may not be able to obtain such a partner.

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 a new medical device 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.

Our plans for continuing clinical trials, conducting research, furthering development and, eventually, marketing our human-use equipment will involve substantial costs. The extent of our 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 then 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 then expected costs involved in patenting our technologies and defending them and pursuing our intellectual property strategy;

- Changes in our existing research and development relationships and our ability to enter into new agreements;

- Changes in or terminations of our existing collaboration and licensing arrangements;

- Faster than expected rate of progress and changes in scope and 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 MedPulser® Electroporation System;

- Higher than expected costs of developing the processes and systems to support FDA approval of our MedPulser® Electroporation System;

- An increase in our timetable and costs for the development of marketing operations and other activities related to the commercialization of our MedPulser® Electroporation System and our other product candidates;

- A change in the degree of success in our Phase III clinical trial of MedPulser® Electroporation System and in our other clinical trials;

- Higher then 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 to raise needed funds. Sale of our stock to new private or public investors usually results in existing stockholders becoming diluted. 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 rise, among other things. Dilution also lessens a stockholder s voting power.

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

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 Securities and Exchange Commission, or the SEC, declared effective on May 25, 2006, we have registered with the SEC an aggregate of $75,000,000 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 so-called shelf 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, 2006, we have taken-down from our shelf registration statement, and issued and sold, an aggregate of 4,210,284 shares of our common stock and warrants to purchase up to 1,425,919 shares of our common stock and, if those warrants are fully exercised at their exercise price of $2.87, we will have issued an additional 1,425,919 shares of our common stock under that shelf registration statement. In other words, the shares of common stock we have sold in offerings under our shelf registration statement represented approximately 12% of our outstanding shares at December 31, 2006 (16% if the warrants we have sold under our shelf registration statement are fully exercised).

In addition, in October 2006, Inovio Asia Pte. Ltd., our recently-formed subsidiary incorporated in the Republic of Singapore, issued and sold 2,201,644 of its ordinary shares to foreign investors at $2.43 per share. Under the terms of the agreement under which these ordinary shares were issued, they were exchanged for 2,201,644 shares of our common stock and five-year warrants to purchase up to 770,573 shares of our common stock at an exercise price of $2.87 per share on January 14, 2007. Further, pursuant to participation rights applicable to these equity financings, in October 2006 we also issued and exchanged 479,722 shares of our common stock and five-year warrants to purchase 167,902 shares of our common stock at an exercise price of $2.87 per share to certain institutional holders of our outstanding Series C Preferred Stock in exchange for their shares of Series C Preferred Stock.

The shares of common stock we issued in the exchange for the ordinary shares of our subsidiary and for our Preferred Stock in the foregoing transactions represent approximately 8% of our outstanding shares at December 31, 2006 (10% if the warrants we also issued in those transactions are fully exercised). The registration statement of which this prospectus is a part, registers for resale under the Securities Act of 1933, as amended, or the Securities Act, the shares of common stock and the shares of common stock underlying the warrants that were included in the exchange for the ordinary shares of IAPL and the shares of common stock underlying the warrants that were issued in the exchange with certain holders of our Preferred Stock. Upon the effectiveness of this registration statement, these shares will become freely tradable in the open market.

Thus, the number of shares of common stock we have sold under our shelf registration statement and exchanged as of January 14, 2007 represent approximately 19% of our outstanding shares at December 31, 2006 (26% if the warrants we are selling in this offering and issued in the exchange transactions are fully exercised).

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.

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

Our share price and 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. to go up or down on positive news and to go up or down on no news. Our stock has exhibited this type of behavior in the past, and may well 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 when needed;
- 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 (to date, the EU is the only foreign jurisdiction in which we have sought approval for commercialization);
- Announcement of legal actions brought by or filed against us for patent or other matters, and especially any negative rulings or outcomes in such actions;
- Cancellation of important corporate partnerships or agreements;
- Public concern as to the safety or efficacy of our human-use products including public perceptions regarding gene therapy in general;
- 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; and
- Significant advances made by competitors that are perceived to limit our market position.

Additionally, our clinical trials are open-ended and, therefore, there is a risk that information regarding the success of our clinical trials may be obtained by the public prior to a formal announcement by us. These factors, as well as the other factors described in this Report, could significantly affect the price of our stock.

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, 2006, we had an accumulated deficit of $128.8 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.

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 through the beginning of the third quarter of 2008.

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

As of December 31, 2006, we had net operating losses (NOLs) of approximately $77.0 million for federal income tax purposes and approximately $46.9 million for state income tax purposes. We also had federal research tax credit carryforwards of approximately $1.3 million as of December 31, 2006, which begin to expire in 2007 unless previously utilized. Under Section 382 of the Internal Revenue Code, if a corporation undergoes an ownership change, the corporation s ability to use its pre-change NOLs, research tax credit carryforwards and other pre-change tax attributes to offset its post-change income may be limited. An ownership change is generally defined as a greater than 50% change in its equity ownership by value over a three-year period. We believe that there are built-in gains inherent in the value of our assets that, when recognized, may increase this annual limitation during the five-year period form the date of an ownership change. We are currently assessing the extent of these built-in gains. The annual limitation on our net operating loss carryforwards that can be used to offset post-ownership change taxable income could adversely affect our liquidity and cash flow.

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

If we are not able to raise needed money under acceptable terms, then we will have to take measures to cut costs, such as:

- Delay, scale back or discontinue one or more of our oncology or gene delivery programs or other aspects of operations, including laying off some personnel or stopping or delaying clinical trials;

- Sell or license some of our technologies that we would not otherwise give up if we were in a better 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 better 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 have a lower valuation, which may be reflected in our stock price. Further, the effects on our operations, financial performance and our stock price may be exacerbated if we do not or cannot take one or more of the above-listed actions in a timely manner when needed.

A SMALL NUMBER OF LICENSING PARTNERS ACCOUNT FOR A SUBSTANTIAL PORTION OF OUR REVENUES 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 year ended December 31, 2006, one licensing partner, Merck, accounted for approximately 44% or $1.5 million of our consolidated revenue.

PRE-CLINICAL AND CLINICAL TRIALS OF HUMAN-USE EQUIPMENT ARE UNPREDICTABLE. 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 our product candidates are safe and effective for a particular cancer type or other disease. Regulatory approval of a new medical device, drug or combination therapy is never guaranteed. The FDA will make its 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.

We have completed Phase II clinical trials and are conducting two Phase III clinical trials of our lead product candidate, the MedPulser® Electroporation System, for the treatment of recurrent and second primary H&N cancers. In addition, we are conducting two Phase IV (or Pre-Marketing) clinical trials of our MedPulser® Electroporation System for the treatment of new and recurrent H&N cancers and new and recurrent primary skin cancers, and have started a Phase I clinical trial of our MedPulser® Electroporation System for the treatment of breast cancers. Current or future clinical trials may demonstrate the MedPulser® Electroporation System is neither safe nor effective.

Any delays or difficulties we encounter in our pre-clinical research and clinical trials, in particular the Phase III clinical trials of our MedPulser® Electroporation System for the treatment of recurrent H&N cancer, 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 or larger clinical trials than planned. Any delay or preclusion could also delay or preclude the commercialization of our MedPulser® Electroporation System 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, other pharmaceutical and biotechnology companies have suffered significant setbacks and we would likely suffer similar consequences under such circumstances. Not only has the inability to replicate consistent outcomes resulted in such companies pushing their commercialization timelines back, but some companies, particularly smaller biotechnology companies with limited cash reserves, have gone out of 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.

The patients admitted to our oncology clinical trials conducted in the United States and Europe are experiencing late stage cancer and are in a diminished physical state prior to entering our studies and thus these patients can experience serious adverse events, which is abbreviated in our industry as SAEs, whether due to our technology or other procedures. To date, the most clinically significant SAE s that were

assessed as at least possibly related to our drug and technology are: bleeding in tumor bed, pain, dysphagia, edema at treatment site, fistula, myocardial infarction and sudden death (cause of death unknown). Because our studies are controlled and ongoing, we cannot assure you that these or other serious adverse events will not delay or prevent approval of our product by the FDA.

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

- The electroporation-mediated delivery of drugs or other agents may be found to be ineffective or 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, a scarcity of subjects that are willing to participate through the end of the trial, or data and document review;

- 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, then we would expect this to have a serious negative effect on our company and our stockholders.

Despite the FDA s designation of our MedPulser® Electroporation System as a Fast Track product, such FDA designation is independent of the FDA s Priority Review and Accelerated Approval designations and we may encounter delays in the regulatory approval process due to additional information requirements from the FDA, unintentional omissions in our PMA for our MedPulser® Electroporation System, or other delays in the FDA s review process. We may encounter delays or rejections in the regulatory approval process because of additional government regulation from future legislation or administrative action or changes in FDA policy during the period of product development, clinical trials and FDA regulatory review.

A majority of our operating expenses relate to our clinical trials. A delay in our trials, for whatever reason, will probably require us to spend additional funds to keep the product(s) moving through the regulatory process. If we do not have or cannot raise the needed funds in a timely manner, then the testing of our human-use products could be shelved. In the event a clinical trial is not successful, we will have to determine whether to put more money into the program to address its deficiencies or whether to abandon the clinical development programs for the products in the tested indications. Loss of the 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 UNITED STATES AND INTERNATIONAL GOVERNMENT AGENCIES 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 the 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 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 dermatology, use for transfer of a certain gene to a certain tissue, or use for administering a certain drug to a certain tumor type in a patient having certain characteristics). These regulatory processes are extensive and involve substantial costs and time.

We have limited experience in, and limited resources available for, 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:

- 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 COULD BE SUBSTANTIALLY DAMAGED IF PHYSICIANS AND HOSPITALS PERFORMING OUR CLINICAL TRIALS DO NOT ADHERE TO PROTOCOLS OR PROMISES MADE IN CLINICAL TRIAL AGREEMENTS.

We work and have worked with a number of hospitals to perform clinical trials, primarily in oncology. We depend on these hospitals to recruit patients for the trials, to perform the trials according to our protocols, and to report the results in a thorough, accurate and consistent fashion. Although we have agreements with these hospitals, which govern what each party is to do with respect to the 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:

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

Risk of Improper 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 can be inferred if the 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 do serious damage to a company s reputation.

Risks Involving Patient Safety and Consent. 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 and AIDS. 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, not to mention 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 similar to ours have resulted in companies going out of business. While these risks are ever 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 certain requirements for 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, manufacturer or manufacturing processes or failure 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, or be able to obtain regulatory approvals in one ore more of the jurisdictions in which we would wish to commercialize our products. 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 effect on our results of operations and financial condition.

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 our 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.

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.

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 we enter into any such arrangements with third parties, our product revenue is likely to be lower than if we directly marketed and sold our products, and any revenue we receive will depend upon the efforts of such third parties. We may be unable to develop sufficient sales, marketing and distribution capabilities to commercialize our products successfully.

If we want to market and sell our human-use products directly, we must develop a marketing and sales force. This would involve substantial costs, training, and time. 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. 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 AND CARRY OUT PORTIONS OF OUR RESEARCH; 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 can help pay the salaries and other overhead expenses related to research. In the past, we 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.

Our clinical trials to date have used our equipment with the anti-cancer drug bleomycin sulfate. We do not currently intend to package bleomycin sulfate together with the equipment for sale, but if it should be necessary or desirable to do this, we would need a reliable source of the drug. At this time we do not have a fixed source of bleomycin sulfate for inclusion with equipment or alone. If it becomes necessary or desirable to include bleomycin sulfate in our package, we would have to form a relationship with another provider of this generic drug before any product could be launched.

We also rely on scientific collaborators at companies and universities to further our research and 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 risk that:

- Our equipment will be used in ways we did not authorize, which can lead to liability and unwanted competition;

- We may determine that our 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 is achieved, royalties;

- We may lose rights to inventions made by our collaborators in the field of our business, which can lead to expensive legal fights 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 legal fights; and

- Our collaborative associations can damage a our reputation if they go awry 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, that we will be able to continue to collaborate with individuals and institutions that will further our work, 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, then it is likely the research pace will slow down and it will take longer to identify and commercialize new products, or new indications for our existing products.

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

Another factor that will influence our success is the strength of our patent portfolio. 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, then the patent holder has the right to initiate legal proceedings against that person to protect the patented material. These proceedings, however, can be lengthy and costly. We perform an ongoing review of our patent portfolio to evaluate whether our key technologies appear to be 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:

Risk 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 able to maintain a competitive advantage in the market for such products.

Risk 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.

Risk of Being Charged With Infringement. Although we are not currently aware of any parties intending to pursue infringement claims against us, there is the risk that we will use a patented technology allegedly or actually 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 gone out of business after fighting and losing infringement battles. If we or our partners are prevented from using or selling our human-use equipment, then our business would be materially adversely affected.

Freedom to Operate Risks. We are aware that patents related to electrically-assisted drug delivery have been granted to, and patent applications filed by, our potential competitors. We or our partners have taken licenses to some of these patents, and will consider taking 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 patent-related risks 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 occurs, then we run the risk of losing control of valuable company information, which could negatively affect our competitive position.

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

There are many products and programs that to us seem promising and that we could pursue. However, with limited resources, we may decide to change priorities and shift programs away from those that we had been pursuing for the purpose of exploiting our core technology of electroporation. The choices we may make will be dependent upon numerous factors, 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 MedPulser® DNA Delivery System and any of our other 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 timing 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 depress 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, 2006, to our knowledge, there have not been any serious adverse events in any gene therapy clinical trials in which our technology was used. These current gene therapy clinical trials are being sponsored by several of our partners. 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 by a partner, the partner would be responsible for reporting 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 the clinical trials altogether.

The FDA has not approved any gene therapy product or gene-induced product for sale in the United States. 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 CANNOT PREDICT THE SAFETY PROFILE OF THE USE OF OUR MEDPULSER® ELECTROPORATION SYSTEM WHEN USED IN COMBINATION WITH OTHER THERAPIES.

Our trials involve the use of our MedPulser® Electroporation System in combination with bleomycin sulfate, an anti-cancer drug. While the data we have evaluated to date suggest the MedPulser® Electroporation System does not increase the adverse effects of other therapies, we cannot predict if this outcome will continue to be true or whether possible adverse side effects not directly attributable to the other drugs will compromise the safety profile of our MedPulser® Electroporation System when used in certain combination therapies or if used off-label with other drugs by physicians.

WE RUN THE RISK THAT OUR TECHNOLOGY WILL BECOME OBSOLETE OR LOSE ITS COMPETITIVE ADVANTAGE.

The drug 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 you that our products will be the best, the safest, the first to market, or the most economical to make or use. If competitors products are better than ours, for whatever reason, then we could make less money from sales and our products risk becoming 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 development 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 a better patent position protecting their technology than we have or will have 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 make 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 late-comers, 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 human-use products. This would significantly affect our ability to sell our human-use products in the U.S. and would have a serious effect 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 have made strategic acquisitions in the past, including our acquisition of Inovio AS in January 2005, and, in the future, may acquire or make investments 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 the risks commonly encountered in business acquisitions. These risks include, among other things:

- 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 one-time charges, such as the charge in excess of $3.3 million we incurred to our results of operations during 2005 related to our write-off of in-process research and development that we acquired in our acquisition of Inovio AS in January 2005;
- Increased legal, accounting and other administrative costs associated with negotiation, documentation and reporting on 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 acquisitions.

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

In January 2005, we acquired Inovio AS, a Norwegian company. During the year ended December 31, 2006, Inovio AS contributed approximately $1.1 million to our revenue, which amounted to approximately 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 Singapore dollars. Fluctuation in the values of these foreign currencies relative to the U.S. dollar will affect our financial results which are reported in US 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.

ECONOMIC, POLITICAL, MILITARY OR OTHER EVENTS IN THE UNITED STATES OR IN OTHER COUNTRIES COULD INTERFERE WITH OUR SUCCESS OR OPERATIONS AND HARM OUR BUSINESS

The September 11, 2001 terrorist attacks disrupted commerce throughout the United States and other parts of the world. The continued threat of similar attacks throughout the world and the military action taken by the United States and other nations in Iraq or other countries may cause significant disruption to commerce throughout the world. To the extent that such disruptions further slow the global economy, our business and results of operations could be materially adversely affected. We are unable to predict whether the threat of new attacks or the responses thereto will result in any long-term commercial disruptions or if such activities or responses will have a long-term material adverse effect on our business, results of operations or financial condition.

OUR DEPENDENCE UPON NON-MARKETED PRODUCTS, 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 some other jurisdictions and we may never obtain those approvals. Even if we do obtain approvals to sell our human-use products in the United States, those sales may not be as large or 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 the public market analysts and investors. If this happens, the price of our common shares would likely fall.

THERE IS A RISK OF PRODUCT LIABILITY 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 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, then it would impact our financial ability to perform the research, development, and sales activities 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 manufacture. 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 are 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, even if we have insurance.

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

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 the 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 it occurs. If our facilities are found not to be up to the 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 the human-use equipment in our facility. Any delay in production will have a negative effect on our business.

While there are no target dates set forth for launch of our products in the United States, we plan on launching these products once we successfully perform a Phase III clinical study, 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 on 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.

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 operations staff is responsible for designing, developing and manufacturing in the product in accordance with the applicable 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, operations 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 line of work, 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.

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, given the nature of our research activities, any such disaster could cause significant delays in our programs and make it difficult for us to recover. 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.

LEGISLATION REQUIRING COMPANIES TO EVALUATE INTERNAL CONTROLS UNDER SECTION 404 OF THE SARBANES-OXLEY ACT OF 2002 HAS INCREASED OUR EXPENSES AND COULD RESULT IN EVENTS THAT ADVERSELY AFFECT OUR STOCK.

As directed by Section 404 of the Sarbanes-Oxley Act of 2002 (Section 404), the Securities and Exchange Commission adopted rules requiring public companies to include a report of management on our internal controls over financial reporting in our annual reports on Form 10-K that contains an assessment by management of the effectiveness of our internal controls over financial reporting. In addition, our independent registered public accounting firm must attest to and report on management s assessment of the effectiveness of our internal controls over financial reporting. This requirement first applied to our 2004 Annual Report on Form 10-K.

How companies are implementing these new requirements including internal control reforms, if any, to comply with Section 404 s requirements, and how independent auditors are applying these new requirements and testing companies internal controls, is an evolving process and remains subject to uncertainty. The requirements of Section 404 are ongoing and apply to future years. We expect that our internal controls will continue to evolve as our business activities change. During the course of management s and our independent registered public accounting firm s review of our internal controls over financial reporting as of December 31, 2006, we did not identify any significant control deficiencies that arose to the level of material weaknesses, as defined by the Public Company Accounting Oversight Board (PCAOB). Although we will continue to diligently and vigorously review our internal controls over financial reporting in order to ensure compliance with the Section 404 requirements, any control system, regardless of how well designed, operated and evaluated, can provide only reasonable, not absolute, assurance that its objectives will be met.

If, during any year, our independent registered public accounting firm is not satisfied with our internal controls over financial reporting or the level at which these controls are documented, designed, operated, tested or assessed, or if the independent registered public accounting firm interprets the requirements, rules or regulations differently than we do, then our independent registered public accounting firm may decline to attest to management s assessment or may issue a report that is qualified. This could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements, which ultimately could negatively impact the market price of our stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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 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.

In January 2007, we entered into a 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 $1,350 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

Neither we nor any of our subsidiaries are involved in any material legal proceedings.

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

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2006.

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 traded on the American Stock Exchange (AMEX) under the symbol INO. Trading began on the AMEX on December 8, 1998.

On September 13, 2004, we effected a one-for-four reverse split of our common stock. At the time of the reverse stock split, each four shares of our issued and outstanding common stock were combined into one share of our common stock. The reverse stock split did not change the number of authorized shares of our common stock. All common share and per share amounts throughout this Report have been adjusted to give effect to this reverse one-for-four stock split.

The table below sets forth the quarterly high and low closing sales prices of our common shares in the two most recent fiscal years.

	American Stock Exchange US$	
Year ended December 31, 2006	**High**	**Low**
First quarter	3.15	2.28
Second quarter	2.67	2.00
Third quarter	2.58	2.01
Fourth quarter	3.59	2.62
Year ended December 31, 2005		
First quarter	5.01	3.42
Second quarter	3.70	2.45
Third quarter	3.24	2.60
Fourth quarter	2.86	1.99

As of March 8, 2007, we had approximately 481 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 8, 2007 was $3.10, as reported on the AMEX.

Recent Sales of Unregistered Securities

In December 2006 we issued 45,000 unregistered common shares to an employee of the company pursuant to an exemption from registration under the Securities Act of 1933, as amended.

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. During the three years in the period ended December 31, 2006, 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 2006; through the issuance of 55,518 shares of our common stock valued at $179,956 and in cash of $60,235 during 2005; and through the issuance of 73,072 shares of our common stock valued at $322,397 in 2004. As of December 31, 2006 there were no shares of Series A or B Preferred Stock outstanding. 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. Currently, the conversion price of such shares is $6.80 per share. 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 our October 2006 private placement. During the year ended December 31, 2005 we paid cash of $553,694 and during the year ended December 31, 2004 we issued 30,124 shares of our common stock valued at $133,693, and paid $276,315 in cash. As of December 31, 2006 and 2005, there were 102 and 337 shares of Series C Preferred Stock outstanding, respectively.

Repurchases

We did not repurchase any of our equity securities during the fourth quarter of fiscal 2006.

Equity Compensation Plans

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

Performance Graph

The following graph illustrates a comparison of the total cumulative stockholder return on our common stock since March 31, 2001. The graph assumes an initial investment of $100 on March 31, 2001. The comparisons in the graph are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of our common stock.

COMPARISON OF 69 MONTH CUMULATIVE TOTAL RETURN*

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

* $100 invested on 3/31/01 in stock or Index-including reinvestment of dividends.
Fiscal year ending December 31.

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. The selected Statement of Operations data for each of the three years in the period ended December 31, 2006 and the Balance Sheet data as of December 31, 2006 and 2005 are derived from our audited consolidated financial statements included later in this Form 10-K. The selected Statement of Operations data for years ended December 31, 2003 and 2002 and the Balance Sheet data as of December 31, 2004, 2003, and 2002 were derived from our audited consolidated financial statements, which are not included in this Form 10-K. The data set forth below should be read in conjunction with our Consolidated Financial Statements and the Notes thereto included elsewhere in this Report and Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations set forth below.

	Year Ended December 31, 2006	**Year Ended December 31, 2005***	**Year Ended December 31, 2004**	**Year Ended December 31, 2003**	**Year Ended December 31, 2002**
Operations Data:					
License fee and milestone payments	$ 1,337,105	$ 2,563,283	$ 214,351	$ 5,882	$ 5,883
Revenue under collaborative research and development arrangements	962,207	1,492,145	945,591	74,647	183,638
Grants and miscellaneous revenue	1,168,866	1,411,825	7,157		
Loss from continuing operations	(12,479,124)	(15,296,852)	(11,263,140)	(6,588,245)	(5,908,044)
Gain on disposal of assets			290,209	2,034,078	
Loss from discontinued operations				(110,740)	(56,783)
Net loss	(12,479,124)	(15,296,852)	(10,972,931)	(4,664,907)	(5,964,827)
Imputed and declared dividends	(2,005,664)	(11,065,770)	(732,405)	(18,210,530)	
Loss attributable to common stockholders	(14,484,788)	(26,362,622)	(11,705,336)	(22,875,437)	(5,964,827)
Amounts per common share basic and diluted:					
Loss from continuing operations	(0.40)	(0.81)	(0.64)	(0.49)	(0.58)
Gain (loss) from discontinued operations			0.02	0.14	(0.01)
Net loss	(0.40)	(0.81)	(0.62)	(0.35)	(0.59)
Imputed and declared dividends	(0.06)	(0.58)	(0.04)	(1.37)	
Net loss attributable to common stockholders	(0.46)	(1.39)	(0.66)	(1.72)	(0.59)
Balance Sheet Data:					
Cash and cash equivalents	8,321,606	17,166,567	17,889,797	13,460,446	875,444
Short-term investments	14,700,000				
Total assets	35,949,615	28,978,954	20,951,502	16,228,990	5,419,225
Long-term liabilities	5,638,615	1,791,801			35,851
Total stockholders equity	21,692,556	23,470,748	15,549,510	15,047,635	3,725,370

* On January 25, 2005, we consummated the acquisition of Inovio AS, a Norwegian company. For information concerning this acquisition, see Note 15 of Notes to our 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 Results of Operations Comparison of Years Ended December 31, 2006 and 2005 and Comparison of Years Ended December 31, 2005 and 2004.

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

Forward-Looking Statements

The following discussion should be read in conjunction with the audited consolidated financial statements and the notes thereto contained elsewhere in this annual report. The following discussion and analysis explains trends in our financial condition and results of operations for the years ended December 31, 2006, 2005 and 2004.

This Form 10-K 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, plans, strategies and objectives. 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, 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.

The risks and uncertainties are detailed from time to time in our reports filed with the SEC, including Forms 8-K, 10-Q, and 10-K, and include, among others, items included under Item 1A Risk Factors of this Report. The risks included there are not exhaustive. Other sections of this report may include additional factors that could adversely impact our business and financial performance. Moreover, 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 as a prediction of actual results. 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.

Overview

We are a biomedical company whose technology platform is based on the science of electroporation. We are a leader in developing human therapeutic applications of electroporation, which uses brief, controlled electrical pulses to increase cellular uptake of useful biopharmaceuticals, with what we believe to be the industry s most extensive patent portfolio covering *in vivo* electroporation. We are focused on commercializing our Selective Electrochemical Tumor Ablation (SECTA) therapy and developing multiple DNA vaccines using our delivery platform for gene-based treatments. SECTA, our local ablation therapy for solid tumors is designed to selectively kill cancerous cells and minimize cosmetic or functional impacts to healthy tissue typically treated around the tumor. In addition, we have enhanced our technologies through various licensing and collaboration agreements. With our partners, we are researching and developing products using our patented DNA delivery technologies for the prevention and treatment of serious and life-threatening diseases.

We are currently building two major franchises based on our MedPulser® Electroporation System: Oncology and DNA vaccines.

For oncology, our therapy uses electroporation to enhance the local uptake of the generic cytotoxic drug bleomycin sulfate to achieve tumor cell death. Our system, which uses a pulse generator together with disposable needle applicators, delivers electrical pulses to tumors injected with the drug. We believe the distinctive feature of the system is the preservation of healthy tissue at the margins of the tumor. We anticipate the system may therefore afford advantages over surgery in preserving function and improving the quality of life for cancer patients who would otherwise face significant morbidity associated with cancer surgery. Our SECTA therapy is in Phase III clinical trials in the United States and Europe for the treatment of recurrent H&N cancer; and in Phase I/II for the treatment of recurrent breast cancer. In addition, we are conducting pre-marketing studies to support the commercialization of our SECTA system in Europe. Prior to commercial sales of our SECTA system in the European Union (EU), we are required to obtain, and already have obtained a CE Mark, which is recognized internationally as a symbol of quality and compliance. Completion of the European pre-marketing studies will provide pharmacoeconomic data to be used to seek reimbursement, as well as provide additional efficacy and safety data and local experience with physicians who are thought leaders in Europe. This pre-marketing data is a vital component of a European commercial launch of the SECTA system and will represent an important milestone for us.

As part of our MedPulser® product line, our efforts in tumor ablation are complemented with the development of other cancer therapies using electroporation therapy for the intracellular delivery of DNA-based treatments. To our knowledge, we are the first company to initiate a clinical study involving the use of electroporation technology to deliver therapeutic genes in human subjects, which was achieved in collaboration with investigators at the Moffitt Cancer Center in Tampa, Florida in December 2004. This investigation was approved by the FDA and involves electroporating melanomas with DNA encoded to express particular cytokines in an attempt to stimulate immunity against the patient s tumor. In 2004, we extended our license with Vical to include a worldwide license for the use of our electroporation together with Vical s naked DNA technology for their development of an HIV DNA vaccine. In 2004, we executed a major licensing deal with milestone and royalty payments with Merck for the development of proprietary DNA vaccines for cancer and infectious diseases using electroporation.

In January 2005, we acquired Inovio AS, a Norwegian company, to expand our patent portfolio in the area of intramuscular electroporation. The Inovio AS acquisition included a collaboration with the University of Southampton on a Phase I clinical study for the electroporation of a DNA vaccine for prostate carcinoma. Our DNA electroporation delivery technology is now being evaluated in four independent Phase I/II clinical trials together with Moffitt, Vical, Merck and Southampton, respectively. In January 2006, we executed a collaborative commercialization agreement with Tripep AB (Tripep) (Stockholm:TPEP.ST) to co-develop a hepatitis C therapeutic vaccine, which is likely to result in another Phase I clinical trial this year. In November 2006, we executed another major non-exclusive license to our DNA delivery technology for intramuscular applications regarding certain therapeutic DNA vaccines to Wyeth Pharmaceuticals, a division of Wyeth. We have been enrolling patients in a Phase I study to treat locally recurrent breast cancer after a mastectomy or partial mastectomy using our SECTA therapy. In addition, in 2005, we initiated a Phase I pancreatic cancer study. Although we still believe that a potential pancreatic disease indication for SECTA would be attractive commercially due to the unmet clinical need for improved local control, the pancreatic trial was terminated to maintain a focused and more manageable clinical program. As a result we terminated the pancreatic study during the second quarter of 2006.

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, Valentis discharged us of all other outstanding obligations in connection with a previous licensing arrangement, and we received approximately $159,000 of funds previously held in escrow.

In October 2006, we also announced an appropriation of approximately $1,100,000 by the United States Department of Defense for the development of our gene delivery electroporation technology for application to vaccinations against infectious diseases, including potential bioterrorism agents.

In November 2006, we granted VGX a world-wide non-exclusive license to our DNA delivery technology for intratumoral delivery of a proprietary gene to control the growth of melanoma and other cancers. Under the terms of the agreement, we received an upfront license fee and may receive payments based on successful completion of clinical and regulatory milestones. We will exclusively supply VGX with electroporation devices for the therapy included in the license agreement and we will receive royalties on the sale of products covered by the license.

In November 2006, we also entered into a collaboration and license agreement with Wyeth Pharmaceuticals whereby we received an upfront fee of $4,500,000, as well as research support, annual maintenance fees and royalties on net product sales, in exchange for a worldwide non-exclusive license to our technology for certain infectious disease targets. In addition, contingent upon the achievement of clinical and regulatory milestones, we will receive development payments of up to $60,000,000 over the term of the collaboration and license agreement.

We will continue to seek new strategic licensing partners for the use of electroporation for the delivery of drugs in the treatment of cancer and delivery of genes into cells. We will not receive any additional milestone or licensing payments for development or sale of our products until a new strategic alliance is in place or we achieve the milestones specified in our existing agreements, or product sales commence under our existing agreements. There can be no assurance that we will be able to contract with such a partner or that we can achieve the milestones set out in our agreements.

Until the commercialization of human-use clinical products currently in the clinic, we expect revenues and other income to continue to be attributable to collaborative research arrangements, licensing fees, grants and interest income. To suppot our working capital needs, in October 2006 we completed a registered offering to 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 $9,900,003. All warrants included in the registered offering have a term of five years and are exercisable at $2.87 per share.

In September 2006, we also incorporated Inovio Asia Pte. Ltd. (IAPL), a new wholly-owned subsidiary of Inovio, in the Republic of Singapore and thereafter granted IAPL an exclusive royalty-free license to use certain of our intellectual property in exchange for 6,584,365 ordinary shares of IAPL. In March 2007, we terminated our license agreement while retaining our ordinary shares.

In October 2006, IAPL completed a private placement in which it issued and sold 2,201,644 of its ordinary shares for cash in the amount $5,349,995. On January 14, 2007, these ordinary shares were exchanged for 2,201,644 shares of our common stock and five-year warrants to purchase up to 770,573 shares of our common stock at an exercise price of $2.87 per share. Concurrent with the October 2006 financings, certain holders of our Series C Preferred Stock converted 115.12 preferred shares and $14,571 of accrued dividends into 479,722 shares of our common stock together with warrants to purchase 167,902 shares of our common stock, pursuant to the terms and conditions of their Preferred Stock.

Due to the amount of expenses incurred in the development of the oncology and gene delivery systems, we have been unprofitable since 1994. As of December 31, 2006, we had an accumulated deficit of $128,754,730. 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 demanding of 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 (GAAP). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues 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 and assumptions.

Our critical accounting policies include:

Revenue Recognition. 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 comprise initial fees and milestone payments derived from collaborative licensing arrangements. Non-refundable milestone payments continue to be recognized upon the achievement of specified milestones when 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.

Patent and License Costs. 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.

Long-lived Assets. We assess the recoverability of long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, we reduce the carrying value of the 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 the long-lived assets will exceed the assets carrying value, and accordingly, we have not recognized any impairment losses through December 31, 2006.

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.

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. As of December 31, 2006, our goodwill and intangible assets, net of accumulated amortization, totaled $7,909,344. 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. 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, the Company adopted SFAS No. 123(R) using the modified prospective application method and began accounting for its stock-based compensation using a fair-value based recognition method. Under the provisions of SFAS No. 123(R), stock-based compensation cost is estimated at the grant date based on the fair-value of the award and is recognized as 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 under SFAS No. 123(R) 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 option valuation model to value employee stock awards. We recognize compensation expense using the straight-line amortization method.

Recent Accounting Pronouncements

In July 2006, the FASB issued FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes an Interpretation of FASB Statement No. 109, (FIN 48). FIN 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that it has taken or expects to take on a tax return. FIN 48 became effective for us

on January 1, 2007. Management is currently evaluating the impact of this interpretation and does not expect the adoption of FIN 48 to have a material impact on our consolidated financial statements.

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. The adoption of SFAS 157 is not expected to have a material impact on our consolidated financial statements.

Results of Operations

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.

	Year Ended December 31, 2006	Year Ended December 31, 2005
Revenue:		
License fee and milestone payments	$ 1,337,105	$ 2,563,283
Revenue under collaborative research and development arrangements	962,207	1,492,145
Grants and miscellaneous revenue	1,168,866	1,411,825
Total revenue	3,468,178	5,467,253
Operating expenses:		
Research and development	8,509,785	11,454,773
General and administrative	8,079,587	5,981,200
Amortization of intangible assets	225,000	206,250
Charge for acquired in-process research and development		3,332,000
Total operating expenses	16,814,372	20,974,223
Loss from operations	(13,346,194)	(15,506,970)
Interest and other income	867,070	210,118
Net Loss	(12,479,124)	(15,296,852)
Imputed and declared dividends on preferred stock	(2,005,664)	(11,065,770)
Net loss attributable to common stockholders	$ (14,484,788)	$ (26,362,622)
Amount per common share basic and diluted		
Net loss	$ (0.40)	$ (0.81)
Imputed and declared dividends on preferred stock	(0.06)	(0.58)
Net loss per share attributable to common stockholders	$ (0.46)	$ (1.39)

Revenue

During the year ended December 31, 2006, we recorded total revenue of $3,468,178, as compared to $5,467,253 for the year ended December 31, 2005. Revenue consists of license fees, milestone payments and amounts received from collaborative research and development arrangements and grants.

During the years ended December 31, 2006 and 2005, we recognized revenue of $1,135,455 and $1,323,896 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 total revenue. Inovio AS revenue primarily consists of amounts received from grants and licensing revenue, which are received primarily in foreign currencies, including the Euro, Norwegian Kroner and Swedish Krona.

During the years ended December 31, 2006 and 2005, we recorded revenue under license fees and milestone payments of $1,337,105 and $2,563,283, respectively. The decrease in license fees for the year ended December 31, 2006, as compared to the 2005 fiscal year, was mainly due to the recognition of a $2,000,000 milestone payment during the three months ended June 30, 2005, resulting from the achievement of a clinical milestone by Merck for a plasmid-based vaccine using our MedPulser® DNA Delivery System. Under the Merck agreement, we may receive additional future milestone payments linked to the successful development of a product if achieved. This decrease was offset by license fee payments of $1,000,000 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 have been received.

During the year ended December 31, 2006, we recorded revenue under collaborative research and development arrangements of $962,207, as compared to $1,492,145 for the year ended December 31, 2005. The decrease in revenue 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 the Merck agreement. Billings from research and development work performed pursuant to the Merck agreement are recorded as revenue as the related research expenditures are incurred.

Grant and miscellaneous revenue was $1,168,866 for the year ended December 31, 2006, compared to $1,411,825 for the year ended December 31, 2005. The 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.

Research and Development Expenses

Research and development expenses, which include clinical trial costs, for the year ended December 31, 2006, were $8,509,785, as compared to $11,454,773 for the year ended December 31, 2005. The 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 Clinical Research Organization (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 $279,067 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 $1,369,162 and $1,110,292, 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.

Depending upon the progress of our clinical and pre-clinical programs and our availability of capital, we expect our research and development expenses to increase during the year ending December 31, 2007 compared to the year ended December 31, 2006.

General and Administrative Expenses

General and administrative expenses, which include business development expenses, for the year ended December 31, 2006, were $8,079,587, as compared to $5,981,200 for the year ended December 31, 2005. The 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.

Share-Based Compensation. Prior to January 1, 2006, we accounted for our stock plans using the intrinsic value method under APB No. 25. Effective January 1, 2006, we adopted SFAS No. 123(R), 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 for our stock plans for the year ended December 31, 2006 was $1,199,941. 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.

Amortization of Intangible Assets. 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.

Charge for Acquired In-Process Research and Development. Operating results for the year ended December 31, 2005 included a $3,332,000 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

Interest and other income for the year ended December 31, 2006, was $867,070, as compared to $210,118 for the year ended December 31, 2005. The increase in interest and other income for the year ended December 31, 2006, as compared to the 2005 fiscal year, 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 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 $1,851,056 during the three months ended December 31, 2006, related to the investors who converted $1,151,200 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 $1,851,056 imputed dividend charge associated with this beneficial conversion.

During 2005, we recorded an imputed dividend charge of $1,942,773 related to the investors who converted $3,200,000 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 $1,942,773 imputed dividend charge associated with this beneficial conversion.

During 2005, we also recorded an imputed dividend charge of $8,329,112 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 $8,329,112 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 $0.7 million, 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 carryforwards before they otherwise could be used.

Comparison of Years Ended December 31, 2005 and 2004

The audited consolidated financial data for the years ended December 31, 2005 and December 31, 2004 is presented in the following table and the results of these two periods are used in the discussion thereafter.

	Year Ended December 31, 2005	**Year Ended December 31, 2004**
Revenue:		
License fee and milestone payments	$ 2,563,283	$ 214,351
Revenue under collaborative research and development arrangements	1,492,145	945,591
Grants and miscellaneous revenue	1,411,825	7,157
Total revenue	5,467,253	1,167,099
Operating expenses:		
Research and development	11,454,773	6,548,599
General and administrative	5,981,200	6,129,195
Amortization of intangible assets	206,250	
Charge for acquired in-process research and development	3,332,000	
Total operating expenses	20,974,223	12,677,794
Loss from operations	(15,506,970)	(11,510,695)
Interest and other income	210,118	247,555
Loss from continuing operations	(15,296,852)	(11,263,140)
Discontinued operations:		
Gain on disposal and other, net		290,209
Loss from discontinued operations		
Net loss	(15,296,852)	(10,972,931)
Imputed and declared dividends on preferred stock	(11,065,770)	(732,405)
Net loss attributable to common stockholders	$ (26,362,622)	$ (11,705,336)
Amount per common share basic and diluted		
Loss from continuing operations	$ (0.81)	$ (0.64)
Gain from discontinued operations, net		0.02
Net loss	(0.81)	(0.62)
Imputed and declared dividends on preferred stock	(0.58)	(0.04)
Net loss attributable to common stockholders	$ (1.39)	$ (0.66)

Revenue

During the year ended December 31, 2005, we recorded total revenue of $5,467,253, as compared to $1,167,099 for the year ended December 31, 2004. Revenue consists of license fees, milestone payments and amounts received from collaborative research and development arrangements and grants. During the year ended December 31, 2005, we recognized revenue of $1,323,896 attributable to the operations of Inovio AS, a Norwegian company that we acquired in January 2005, which amounted to approximately 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.

During the year ended December 31, 2005 and 2004, we recorded revenue under license fees and milestone payments of $2,563,283 and $214,351, respectively. The increase in license fees for the year ended December 31, 2005, as compared to fiscal 2004, was mainly due to the recognition of a $2,000,000 milestone payment during the three months ended June 30, 2005, resulting from the achievement of a clinical milestone by Merck & Co., Inc. (Merck) for a plasmid-based vaccine using our MedPulser® DNA Delivery System. This $2,000,000 milestone payment was received in July 2005. Under our May 2004 license and collaboration agreement with Merck, we may receive additional future milestone payments linked to the successful development of a product if achieved.

An additional $500,000 license fee payment was received from Merck in June 2005 related to the Merck agreement, under which we and Merck seek to develop and commercialize our MedPulser® DNA Delivery System for use with certain of Merck s DNA vaccine programs. The license payments received from Merck in 2004 and 2005 will be amortized over the remaining minimum term of the agreement. Royalties are payable on sales of a product utilizing the device developed under the Merck Agreement.

Revenue from license fees during the years ended December 31, 2005 and 2004 included the amortization of license fees we received from a non-exclusive license and supply agreement we entered into with Valentis, Inc in November 2001.

During the year ended December 31, 2005, we recorded revenue under collaborative research and development arrangements of $1,492,145, as compared to $945,591 for the year ended December 31, 2004. The increase in revenue from collaborative research and development arrangements during the year ended December 31, 2005, as compared to fiscal 2004, was primarily due to revenue recognized from the Merck agreement. Billings from research and development work performed pursuant to the Merck agreement are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreement.

Grant and miscellaneous revenue was $1,411,825 for the year ended December 31, 2005, compared to $7,157 for the year ended December 31, 2004. The increase in grant and miscellaneous revenue was mainly due to revenue recognized from our European Union and U.S. Army grants received from the acquisition of Inovio AS.

Research and Development Expenses

Research and development expenses, which include clinical trial costs, for the year ended December 31, 2005, were $11,454,773, as compared to $6,548,599 for the year ended December 31, 2004. The increase in research and development expenses for the year ended December 31, 2005, as compared to fiscal 2004, was primarily due to an increase in clinical trial expenses. These clinical trial expenses included the use of Clinical Research Organizations hired in association with our clinical trials. The remainder of the increase was mainly due to personnel expenses to support internal efforts related to product development and clinical trials, increased external research expenses and other consulting expenses associated with our clinical trials, and the cost of manufacturing products to support these clinical

trials. During the year ended December 31, 2005, research and development expenses also included $1,110,292, 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

General and administrative expenses, which include business development expenses, for the year ended December 31, 2005, were $5,981,200, as compared to $6,129,195 for the year ended December 31, 2004. The decrease in general and administrative expenses for the year ended December 31, 2005, as compared to fiscal 2004, was mainly due to accounting-related expenses incurred during the year ended December 31, 2004, primarily related to the initial implementation of internal controls over financial reporting requirements under Section 404 of the Sarbanes-Oxley Act of 2002. During the year ended December 31, 2005, general and administrative expenses also included $88,187, in general and administrative costs attributable to Inovio AS.

Amortization of Intangible Assets. Amortization of intangible assets was $206,250 for the year ended December 31, 2005, related to an intangible asset associated with contracts and intellectual property acquired as part of our purchase of Inovio AS in January 2005.

Charge for Acquired In-Process Research and Development. Operating results for the year ended December 31, 2005 included a $3,332,000 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 2005. 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 2004.

Interest and Other Income

Interest and other income for the year ended December 31, 2005, was $210,118, as compared to interest and other income of $247,555 for the year ended December 31, 2004. The decrease in interest and other income for the year ended December 31, 2005, as compared to fiscal 2004, was primarily due to lower average cash and investments balance during the year.

Discontinued Operations

In April 2004, we received the final payment of $200,862 in connection with the sale of the BTX Division and recorded expenses related to this transaction of $5,000. In addition, we received a one-time settlement payment of $61,000 associated with the termination of a purchase agreement to acquire the BTX Division by a potential buyer. Our 2004 results reflect a gain of $33,347 we realized from the write-off in the third quarter of 2004 of an accrued warranty liability related to the sale of the BTX division.

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 is 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. We paid dividends to the holders of our Series A and B Preferred Stock through the issuance of a total of 55,518 of our shares of common stock valued at $179,956 and in cash of $60,235 during 2005 and through the issuance of 73,072 shares of our common stock valued at $322,397 in 2004.

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. We paid dividends to the holders of our Series C Preferred Stock in cash of $553,694 during 2005 and through the issuance of a total of 30,124 shares of our common stock valued at $133,693, and in cash of $276,315 during 2004.

During 2005, we recorded an imputed dividend charge of $1,942,773 during the three months ended March 31, 2005, related to the investors who converted $3,200,000 of their previous Series C Preferred Stock investment into 790,123 shares of our common stock as part of our January 2005 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 319,535 additional shares of our common stock by participating in this private placement, 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 $1,942,773 imputed dividend charge associated with this beneficial conversion.

During 2005, we also recorded an imputed dividend charge of $8,329,112 during the three months ended December 31, 2005, 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. 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 1,670,406 additional shares of our common stock by participating in this private placement, 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. 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 issuance, to calculate the $8,329,112 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, 2005, we had net operating loss carry forwards for federal and state income tax purposes of approximately $71.0 million and $46.6 million, respectively. We also had federal and state research and development tax credits each of approximately $1.79 million. If not utilized, the net operating losses and credits will continue to expire in 2006 through 2024. 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 carryforwards before they otherwise could be used.

Liquidity and Capital Resources

During the last seven years, our primary uses of cash have been to finance research and development activities including clinical trial activities in the Oncology, DNA vaccines and Immunotherapy areas of our business. Since inception, we have satisfied our cash requirements principally from proceeds from the sale of equity securities.

Recent Sales of Equity Securities

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 and warrants to purchase 1,425,919 shares of our common stock, resulting in aggregate cash proceeds of $9,900,003 prior to offering expenses of $1,161,070. In connection with this offering, certain holders of our outstanding Series C Preferred Stock exchanged 115.12 shares of our outstanding Series C Preferred Stock and accrued dividends thereon amounting to $14,571 for 479,722 shares of our common stock and warrants to purchase 167,902 shares of our common stock. All warrants issued in this transaction have a term of 5 years and are exercisable at $2.87 per share.

In October 2006, Inovio Asia Pte. Ltd. (IAPL), our wholly-owned 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 $5,349,995. These ordinary shares were exchanged in January 2007 for 2,201,644 shares of our common stock and five-year warrants to purchase up to 770,573 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 $15,795,080 in gross cash proceeds through the sale of our common stock to institutional and accredited investors that included Merck & Co. Inc. and Vical Inc., 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 $15,795,080; (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 $3,037,500. A portion of this private placement involved investors who converted $3,200,000 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 $10,904,494, which consisted of $3,000,000 in cash and $7,904,494 in the issuance of shares of our Series D Convertible Preferred Stock.

On May 20, 2004, we closed a private preferred share placement and raised an aggregate of $10,901,333 through the sale of our Series C Preferred Stock to institutional and accredited investors.

Working Capital and Liquidity

As of December 31, 2006, we had working capital of $21,203,490, as compared to $14,604,502 as of December 31, 2005. The increase in working capital during 2006 was primarily a result of the equity financing with foreign investors in October 2006, as well as the receipt of licensing payments and the exercise of stock options. These receipts were offset, in part, by expenditures related to our research and development and clinical trial activities, as well as various general and administrative expenses related to legal, corporate development, investor relations and finance activities.

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.

As of December 31, 2006, we had an accumulated deficit of $128,754,730. 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 third quarter of 2008 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, results of operations, liquidity, capital expenditures or capital resources.

Contractual Obligations

As of December 31, 2006, we did not have any material long-term debt or other known contractual obligations, except for the operating lease for our new facility, which expires in February 2010, and operating leases for copiers, which expire in 2008 and 2009.

We are contractually obligated to make the following operating lease payments as of December 31, 2006:

	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	$ 1,561,179	$ 489,224	$ 991,478	$ 80,477	$ 0

ITEM 7A. QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to the increase or decrease in the amount of interest income that we can earn on our cash and cash equivalents and short-term investments. We are subject to interest rate risk on our short-term investments, which, as of December 31, 2006, had an average interest rate of approximately 5.04%. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. We ensure 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 AAA investment grade securities. A hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would not materially affect the fair value of our interest sensitive financial instruments. Declines in interest rates over time will, however, reduce our interest income.

Foreign Currency Risk

We have operated primarily in the United States and most transactions in the fiscal year ended December 31, 2006, 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 are currently conducting 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 are assisting 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. The transactions related to 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. We do not expect the impact of fluctuations in the relative fair value of other currencies to be material in 2007.

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, 2006, 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 Controls over Financial Reporting

(a) 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, 2006, 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, 2006.

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 management s assessment of the effectiveness of our internal control over financial reporting as of December 31, 2006. The report is included in this Item under the heading Report of Independent Registered Public Accounting Firm.

(b) Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Inovio Biomedical Corporation

We have audited management s assessment, included in the accompanying Management s Annual Report on Internal Control over Financial Reporting, that Inovio Biomedical Corporation maintained effective internal control over financial reporting as of December 31, 2006, 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. Our responsibility is to express an opinion on management s assessment and an opinion on the effectiveness of 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, evaluating management s assessment, testing and evaluating the design and operating effectiveness of internal control, 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, management s assessment that Inovio Biomedical Corporation maintained effective internal control over financial reporting as of December 31, 2006, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, Inovio Biomedical Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, 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, 2006 and 2005, and the related consolidated statements of operations, stockholders equity and cash flows for each of the three years in the period ended December 31, 2006 of Inovio Biomedical Corporation and our report dated March 15, 2007 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California
March 15, 2007

(c) 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, 2006, 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 2006 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 2006 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 2006 fiscal year.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The 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 2006 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 2006 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-1 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	(a)	Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 of the registrant s Form 10-Q filed on November 13, 2002).
	(b)	Amended and Restated Bylaws, as amended through August 12, 2005 (incorporated by reference to Exhibit 3.2 of the Current Report on Form 8-K filed on August 17, 2005).
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. 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).
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).
10.4	*	Employment Agreement dated October 10, 2001 by and between the registrant and Avtar Dhillon (incorporated by reference to Exhibit 99.1 of the registrant s Registration Statement on Form S-3/A, as amended (File No. 333-76738), filed on February 25, 2002).
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 Promssory 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).
14.1	Inovio Biomedical Corporation Code of Ethics for Senior Officers (incorporated by reference to exhibit number 14.1 of the registrant s Annual Report of 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 16, 2007.

Genetronics 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 16, 2007
/s/ PETER KIES Peter Kies	Chief Financial Officer (Principal Accounting Officer and Principal Financial Officer)	March 16, 2007
/s/ FELIX THEEUWES Felix Theeuwes	Director	March 16, 2007
/s/ JAMES L. HEPPELL James L. Heppell	Director	March 16, 2007
/s/ RIAZ BANDALI Riaz Bandali	Director	March 16, 2007
/s/ TAZDIN ESMAIL Tazdin Esmail	Director	March 16, 2007
/s/ SIMON X. BENITO Simon X. Benito	Director	March 16, 2007

INOVIO BIOMEDICAL CORPORATION

Index to Financial Statements

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
Inovio Biomedical Corporation

We have audited the accompanying consolidated balance sheets of Inovio Biomedical Corporation as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders equity and cash flows for each of the three years in the period ended December 31, 2006. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the 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, 2006 and 2005, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2006, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 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), the effectiveness of Inovio Biomedical Corporation s internal control over financial reporting as of December 31, 2006, 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 15, 2007 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

San Diego, California

March 15, 2007

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Inovio Biomedical Corporation
CONSOLIDATED BALANCE SHEETS

	December 31, 2006	December 31, 2005
ASSETS		
Current assets:		
Cash and cash equivalents	$ 8,321,606	$ 17,166,567
Short-term investments	14,700,000	
Accounts receivable	326,071	284,171
Prepaid expenses and other	1,124,262	870,169
Total current assets	24,471,939	18,320,907
Fixed assets, net	390,789	375,613
Patents and other assets, net	3,177,543	2,148,090
Goodwill	4,290,594	4,290,594
Intangible assets, net	3,618,750	3,843,750
Total assets	$ 35,949,615	$ 28,978,954
LIABILITIES, MINORITY INTEREST AND STOCKHOLDERS EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 2,009,972	$ 1,864,935
Accrued clinical trial expenses	675,330	1,064,497
Deferred revenue	583,147	786,973
Total current liabilities	3,268,449	3,716,405
Deferred revenue	4,396,875	419,470
Deferred rent	228,490	285,875
Deferred tax liabilities	1,013,250	1,076,250
Long-term liabilities		10,206
Total liabilities	8,907,064	5,508,206
Minority Interest	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	1,562
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	29,469
Additional paid-in capital	150,459,604	137,739,954
Receivables from stockholders	(86,030)	
Accumulated deficit	(128,754,730)	(114,269,942)
Accumulated other comprehensive income (loss)	37,045	(30,295)
Total stockholders equity	21,692,556	23,470,748
Total liabilities, minority interest and stockholders equity	$ 35,949,615	$ 28,978,954

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

Inovio Biomedical Corporation
CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31, 2006	Year ended December 31, 2005	Year ended December 31, 2004
Revenue:			
License fee and milestone payments	$ 1,337,105	$ 2,563,283	$ 214,351
Revenue under collaborative research and development arrangements	962,207	1,492,145	945,591
Grants and miscellaneous revenue	1,168,866	1,411,825	7,157
Total revenue	3,468,178	5,467,253	1,167,099
Operating expenses:			
Research and development	8,509,785	11,454,773	6,548,599
General and administrative	8,079,587	5,981,200	6,129,195
Amortization of intangible assets	225,000	206,250	
Charge for acquired in-process research and development		3,332,000	
Total operating expenses	16,814,372	20,974,223	12,677,794
Loss from operations	(13,346,194)	(15,506,970)	(11,510,695)
Interest and other income	867,070	210,118	247,555
Loss from continuing operations	(12,479,124)	(15,296,852)	(11,263,140)
Discontinued operations:			
Gain on disposal of assets			290,209
Net loss	(12,479,124)	(15,296,852)	(10,972,931)
Imputed and declared dividends on preferred stock	(2,005,664)	(11,065,770)	(732,405)
Net loss attributable to common stockholders	$ (14,484,788)	$ (26,362,622)	$ (11,705,336)
Amounts per common share basic and diluted:			
Loss from continuing operations	$ (0.40)	$ (0.81)	$ (0.64)
Gain from discontinued operations, net			0.02
Net loss	(0.40)	(0.81)	(0.62)
Imputed and declared dividends on preferred stock	(0.06)	(0.58)	(0.04)
Net loss attributable to common stockholders	$ (0.46)	$ (1.39)	$ (0.66)
Weighted average number of common shares basic and diluted	31,511,683	19,009,189	17,623,559

Net loss for the year ended December 31, 2006 included stock-based compensation expense that the Company recorded as a result of the adoption of Statement of Financial Accounting Standards (SFAS) No. 123(R), Share-Based Payment, on January 1, 2006. Total compensation cost under SFAS No. 123(R) for our stock plans for the year ended December 31, 2006 was $1,199,941, of which $279,067 was included in research and development expenses and $920,874 was included in general and administrative expenses. The Company did not record stock-based compensation expense for the years ended December 31, 2005 and 2004. As previously disclosed in the notes to the consolidated financial statements for the years ended December 31, 2005 and 2004, net loss including pro forma stock-based compensation expense was $(27,738,325) and $(13,244,003), respectively. See Note 2 to the consolidated financial statements for additional information.

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
Balance at December 31, 2003	847	$ 1	15,920,432	$ 15,920	$ 91,233,698	$	$ (76,201,984)	$	$ 15,047,635
Exercise of stock options for cash			140,821	141	270,233				270,374
Exercise of warrants for cash			474,713	475	1,335,982				1,336,457
Cashless exercise of warrants			39,883	40	(40)				
Issuance of Series C preferred stock for cash, net of issuance costs of $1,170,363	1,090	2			9,730,968				9,730,970
Conversions of preferred stock to common stock	(496)	(1)	1,741,382	1,741	(1,740)				
Share-based compensation					413,320				413,320
Declared dividends			103,981	104	460,260				460,364
Reversal of declared dividends			(785)	(1)	(4,273)				(4,274)
Net loss attributable to common stockholders							(11,705,336)		(11,705,336)
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
Foreign currency translation loss								(30,295)	(30,295)
Net loss attributable to common stockholders							(26,362,622)		(26,362,622)
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			4,074,067	4,074	8,734,804				8,738,878

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	1,873,318				1,873,321
Foreign currency translation gain								67,340	67,340
Net loss attributable to common stockholders							(14,484,788)		(14,484,788)
Balance at December 31, 2006	1,028,069	$ 1,028	35,639,521	$ 35,639	$ 150,459,604	$ (86,030)	$ (128,754,730)	$ 37,045	$ 21,692,556

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

Inovio Biomedical Corporation
CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31, 2006	Year ended December 31, 2005	Year ended December 31, 2004
Cash flows from operating activities:			
Net loss from continuing operations	$ (12,479,124)	$ (15,296,852)	$ (11,263,140)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	749,643	650,817	573,041
Amortization of intangible assets	225,000	206,250	
Compensation for services paid in stock options	1,402,544	116,382	413,320
Compensation for services paid in common stock	244,163		
Amortization of deferred tax liabilities	(63,000)	(57,750)	
Charge for acquired in-process research and development		3,332,000	
Deferred rent	(57,385)	(29,520)	(22,536)
Revenue from conversion of note payable	(10,810)		
Changes in operating assets and liabilities:			
Accounts receivable	(57,631)	152,471	(249,157)
Prepaid expenses and other	(400,417)	(150,644)	(177,928)
Accounts payable and accrued expenses	(233,894)	(1,259,924)	2,949,629
Deferred revenue	3,637,763	28,747	719,420
Net cash used in operating activities	(7,043,148)	(12,308,023)	(7,057,351)
Cash flows from investing activities:			
Purchase of available-for-sale securities	(24,000,000)		
Proceeds from sales of available-for-sale securities	9,300,000		
Acquisition of business, net of cash acquired		(2,341,028)	
Purchases of capital assets	(46,744)	(286,907)	(102,365)
Capitalization of patents and other assets	(1,318,431)	(447,764)	(336,752)
Net cash used in investing activities	(16,065,175)	(3,075,699)	(439,117)
Cash flows from financing activities:			
Proceeds from issuance of preferred stock, net of issuance costs			9,730,970
Proceeds from issuance of common shares, net of issuance costs	8,975,735	15,304,716	1,606,831
Cash received for common stock to be issued			607,471
Proceeds from issuance of shares to minority interest	5,349,995		
Payment of preferred stock cash dividend	(132,343)	(613,929)	(276,315)
Net cash provided by financing activities	14,193,387	14,690,787	11,668,957
Effect of exchange rate changes on cash	69,975	(30,295)	
Net cash provided by discontinued operations			256,862
(Decrease) increase in cash and cash equivalents	(8,844,961)	(723,230)	4,429,351
Cash and cash equivalents, beginning of period	17,166,567	17,889,797	13,460,446
Cash and cash equivalents, end of period	$ 8,321,606	$ 17,166,567	$ 17,889,797

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

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Company

We were incorporated on August 8, 1979, under the laws of British Columbia, Canada, as Genetronics Biomedical Ltd. 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 25, 2005, we consummated the acquisition of Inovio AS, a Norwegian company. On March 31, 2005, we changed our corporate name from Genetronics Biomedical Corporation to Inovio Biomedical Corporation by filing a Certificate of Amendment to our Certificate of Incorporation with the State of Delaware. We also amended our Bylaws to reflect the name change. Effective April 4, 2005, our American Stock Exchange ticker symbol changed from GEB to INO. On September 11, 2006, we incorporated Inovio Asia Pte. Ltd. (IAPL), a wholly-owned subsidiary of the Company, in the Republic of Singapore. We conduct our business through our U.S. wholly-owned subsidiaries, Genetronics, Inc., which was incorporated in California on June 29, 1983, and Inovio AS, a company incorporated in Norway.

We are a biomedical company whose technology platform is based on the science of electroporation. We are a leader in developing human therapeutic applications of electroporation, which uses brief, controlled electrical pulses to dramatically increase cellular uptake of useful biopharmaceuticals, with the industry s most extensive patent portfolio covering *in vivo* electroporation. We are focused on commercializing our Selective Electrochemical Tumor Ablation (SECTA) therapy and developing multiple DNA vaccines using our delivery platform for gene-based treatments. SECTA, our local ablation therapy for solid tumors is designed to selectively kill cancerous cells and minimize cosmetic or functional impacts to healthy tissue typically treated around the tumor. In addition, we have enhanced our technologies through various licensing and collaboration agreements. With our partners, we are researching and developing products using our patented DNA delivery technologies for the prevention and treatment of serious and life-threatening diseases.

We are currently building two major franchises based on our MedPulser® Electroporation System: Oncology and DNA vaccines.

For oncology, our therapy uses electroporation to enhance the local uptake of the generic cytotoxic drug bleomycin sulfate to achieve tumor cell death. Our system, which uses a pulse generator together with disposable needle applicators, delivers electrical pulses to tumors injected with the drug. We believe the distinctive feature of the system is the preservation of healthy tissue at the margins of the tumor. We anticipate the system may therefore afford advantages over surgery in preserving function and improving the quality of life for cancer patients who would otherwise face significant morbidity associated with cancer surgery. Our SECTA therapy is in Phase III clinical trials in the United States and Europe for the treatment of recurrent H&N cancer; and in Phase I/II for the treatment of recurrent breast cancer. In addition, we are conducting pre-marketing studies to support the commercialization of our SECTA system in Europe. Prior to commercial sales of our SECTA system in the European Union (EU), we were required and already have obtained a CE Mark, which is recognized internationally as a symbol of quality and compliance. Completion of the European pre-marketing studies will provide pharmacoeconomic data to be used to seek reimbursement, as well as provide additional efficacy and safety data and local experience with physicians who are thought leaders in Europe. This pre-marketing data is a vital component of a European commercial launch of the SECTA system and will represent an important milestone for us.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As part of our MedPulser® product line, our efforts in tumor ablation are complemented with the development of other cancer therapies using electroporation therapy for the intracellular delivery of DNA-based treatments. To our knowledge, we are the first company to initiate a clinical study involving the use of electroporation technology to deliver therapeutic genes in human subjects. This was achieved in collaboration with investigators at the Moffitt Cancer Center in Tampa, Florida in December 2004. This investigation was approved by the U.S. Food and Drug Administration (FDA) and involves electroporating melanomas with DNA encoded to express particular cytokines in an attempt to stimulate immunity against the patient s tumor. In 2004, we extended our license with Vical, Inc. (Vical) (NASDAQ:VICL) to include a worldwide license for the use of our electroporation together with Vical s naked DNA technology for their development of an HIV DNA vaccine. In 2004, we executed a major licensing deal with milestone and royalty payments with Merck & Co., Inc. (Merck) (NYSE:MRK) for the development of proprietary DNA vaccines for cancer and infectious diseases using electroporation. In January 2005, we acquired Inovio AS, a Norwegian company, to expand our patent portfolio in the area of intramuscular electroporation. The Inovio AS acquisition included a collaboration with the University of Southampton (Southampton), U.K. on a Phase I clinical study for the electroporation of a DNA vaccine for prostate carcinoma. Our DNA electroporation delivery technology is now being evaluated in four independent Phase I/II clinical trials together with Moffitt, Vical, Merck and Southampton, respectively. In 2006, we executed a collaborative commercialization agreement with Tripep AB (Tripep) (Stockholm:TPEP.ST) to co-develop a hepatitis C therapeutic vaccine, which is likely to result in another Phase I clinical trial this year. In November, 2006, we executed another major non-exclusive license to our DNA delivery technology for intramuscular applications regarding certain therapeutic DNA vaccines to Wyeth Pharmaceuticals, a division of Wyeth (Wyeth) (NYSE: WYE).

We incurred a net loss attributable to common stockholders of $14,484,788 for the year ended December 31, 2006. We had working capital of $21,203,490 and an accumulated deficit of $128,754,730 as of December 31, 2006. 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, 2006 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.

Certain reclassifications have been made to the financial statements for the year ended December 31, 2005 to conform to the year ended December 31, 2006 presentation.

2. Summary of Significant Accounting Policies

Consolidation

These consolidated financial statements include the accounts of Inovio Biomedical Corporation and its wholly-owned subsidiaries, Genetronics, Inc., a company incorporated in the state of California,

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Inovio AS, a company incorporated in Norway, and Inovio Asia Pte. Ltd. (IAPL), a company incorporated in the Republic of Singapore. All intercompany accounts and transactions have been eliminated upon 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.

Cash equivalents

We consider all highly liquid investments with original maturities of 90 days or less, when purchased, to be cash equivalents. Cash equivalents are stated at cost, which approximates market value. At December 31, 2006 and 2005, cash equivalents included $2,012,769 and $13,910,635 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 corporate debt securities as of December 31, 2006. All of our short-term investments at December 31, 2006 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, 2006 and 2005.

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. Depreciation and amortization expense for the years ending December 31, 2006, 2005 and 2004 was $206,743, $147,129 and $123,014, respectively.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Patent and license costs

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.

Amortization expense for the years ending December 31, 2006, 2005 and 2004 was $542,900, $503,688 and $450,027, respectively.

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, 2006 there have been no impairments noted.

The Company s cost method investments consist of minor investments in two non-public companies of $125,000 and $25,000, respectively, during the year ended December 31, 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 is tested for impairment on an annual basis and between annual tests if indicators of potential impairment exist, using a fair-value-based approach. No impairment of goodwill has been identified during any of the periods presented.

Intangible Assets

Intangible assets acquired as part of the Inovio AS acquisition (see Note 15) are amortized using the straight-line method over their estimated period of benefit, which is eighteen years. We evaluate the recoverability of intangible assets periodically and take into account events or circumstances that warrant revised estimates of useful lives or that indicate that impairment exists. The net carrying amount and accumulated amortization of these intangible assets at December 31, 2006 was $3,618,750 and $431,250, respectively. The net carrying amount and accumulated amortization at December 31, 2005 was $3,843,750 and $206,250, respectively. We expect total amortization expense for these intangible assets to be approximately $225,000 for each of the years ended December 31, 2007, 2008, 2009, 2010 and 2011, respectively. No impairment of intangible assets have been identified during any of the periods presented.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Long-lived assets

We review long-lived assets, including intangible assets, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. While our current and historical operating and cash flow losses are indicators of impairment, we believe the future discounted cash flows to be received from the long-lived assets will exceed the assets carrying value, and accordingly, we have not recognized any impairment losses through December 31, 2006.

Minority Interest

Pursuant to our October 2006 private placement, our IAPL subsidiary issued 2,201,644 ordinary shares to outside investors which created a minority interest (see Note 8). As a result of this transaction, the Company retained a 75% ownership interest in our IAPL subsidiary with the minority interest shareholders holding 25% as of December 31, 2006.

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.

Revenue recognition

License fees comprise of initial fees and revenue derived from collaborative licensing arrangements, milestone payments, and royalties from future product sales. 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. Funding under these agreements, which are non-refundable, are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreement and our involvement in the Joint Collaboration Committee, and provided collectibility is reasonably assured.

Non-refundable milestone payments continue to be recognized upon the achievement of specified milestones when we have earned the milestone payment provided the milestone is substantive in nature and the achievement of the milestone was not reasonably assured at the inception of the agreement. Payments for milestones which are not reasonably assured of being achieved at the time of signing the agreement are treated as the culmination of a separate earnings process and are recognized as revenue when the milestones are achieved. We defer payments for milestone events which are reasonably assured and recognize them ratably over the minimum remaining period of our performance obligations.

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.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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.

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, 2006	As of December 31, 2005	As of December 31, 2004
Options to purchase common stock	2,798,900	1,141,267	1,472,841
Warrants to purchase common stock	8,663,700	5,648,036	2,435,487
Convertible preferred stock	1,177,959	2,631,512	1,605,381
Non-vested common stock	45,000		
Total	12,685,559	9,420,815	5,513,709

Leases

Leases have been 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, wherein rental payments are expensed as incurred with the exception of our San Diego headquarter facility lease, which has escalating payments and is expensed on a straight-line basis over the term of five years. The annual rent for this leased property is $433,901 in the first two years of the original lease term and $452,767 for the third and fourth years. 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

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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.

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).

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.

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,		
	2006	2005	2004
Risk-free interest rate	4.68%-4.96 %	3.97 %	4.25 %
Expected volatility	98%-109 %	104 %	110 %
Expected life in years	6	6	6
Dividend yield			

Total compensation cost under SFAS No. 123(R) for our stock plans for the year ended December 31, 2006 was $1,199,941, of which $279,067 was included in research and development expenses and $920,874 was included in general and administrative expenses. As a result of adopting SFAS No. 123(R), the Company s loss from operations and net loss for the year ended December 31, 2006 is approximately $1,199,941 greater than if the Company had continued to account for share-based compensation under Accounting Principles Board (APB) No. 25, *Accounting for Stock Issued to Employees,* and related interpretations. Basic and diluted net loss per share for the year ended December 31, 2006 is $(0.04) greater than if the Company had continued to account for share-based compensation under APB No. 25.

At December 31, 2006, there was $946,844 of total unrecognized compensation cost, 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

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

employee stock option grants as all options granted had exercises prices not less than the fair 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 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 years ended December 31, 2005 and 2004.

	Year Ended December 31,	
	2005	2004
Net loss attributable to common stockholders, as reported	$ (26,362,622)	$ (11,705,336)
Deduct: Stock-based employee compensation expense determined under fair value method for all awards	(1,375,703)	(1,538,667)
Pro forma net loss attributable to common stockholders	$ (27,738,325)	$ (13,244,003)
Basic and diluted net loss attributable to common stockholders per share, as reported	$ (1.39)	$ (0.66)
Basic and diluted pro forma net loss attributable to common stockholders per share	$ (1.46)	$ (0.75)

Recent accounting pronouncements

In July 2006, the FASB issued FASB Interpretation No. 48, Accounting for Uncertainty in Income Taxes an Interpretation of FASB Statement No. 109, (FIN 48). FIN 48 prescribes a comprehensive model for how a company should recognize, measure, present, and disclose in its financial statements uncertain tax positions that it has taken or expects to take on a tax return. FIN 48 will be effective for us on January 1, 2007. Management is currently evaluating the impact of this interpretation and does not expect the adoption of FIN 48 to have a material impact on our consolidated financial statements.

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 accordance with 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. The adoption of SFAS 157 is not expected to have a material impact on our consolidated financial statements.

3. Financial Instruments

All of our financial instruments, including cash equivalents, accounts receivable, accounts payable and accrued expenses have carrying values that approximate fair value due to their short-term nature.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. Major Customers and Concentration of Credit Risk

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. This development and commercialization agreement is an extension of an initial evaluation agreement that was established in 2003. 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 have received an upfront license payment under this agreement, and may receive milestone payments linked to the successful development of a product. Royalties would be payable on sales of a product utilizing the device developed under the agreement. An option fee would be payable if Merck includes additional target antigens in the agreement. Under the agreement, Merck will be responsible for all development costs and clinical programs. During the year ended December 31, 2006, 2005 and 2004, we recorded revenue under this collaboration and licensing agreement of $1,535,540, $822,634 and $890,238, respectively. We also recorded a milestone payment from Merck for $2,000,000 during 2005. In addition, as of December 31, 2006 and 2005, $199,489 and $187,606 of our total accounts receivable balance of $326,071 and $284,171, respectively, was attributable to Merck.

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, 2006 we recorded revenue from Valentis of $655,123. None of our total accounts receivable balance as of December 31, 2006 was attributable to Valentis.

During the year ended December 31, 2006 and 2005, we recorded revenue under our U.S. Army grant agreement of $898,932 and $684,646, respectively.

5. Fixed Assets

	Cost	Accumulated depreciation and amortization	Net book value
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
As of December 31, 2005			
Machinery, equipment and office furniture	$ 1,972,853	$ (1,695,364)	$ 277,489
Leasehold improvements	533,377	(435,253)	98,124
Equipment under capital leases	119,671	(119,671)	
	$ 2,625,901	$ (2,250,288)	$ 375,613

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. Patents and Other Assets, Net

	As of December 31, 2006	As of December 31, 2005
Patent costs, net	$ 2,420,517	$ 1,715,940
License costs, net	475,026	300,150
Cost method investments	150,000	
Other	132,000	132,000
	$ 3,177,543	$ 2,148,090

Accumulated amortization of patent costs was $2,409,080 and 1,980,721 as of December 31, 2006 and 2005, respectively. Accumulated amortization of license costs was $723,755 and $600,300 at December 31, 2006 and 2005, respectively.

7. Accounts Payable and Accrued Expenses

	As of December 31, 2006	As of December 31, 2005
Trade accounts payable	$ 555,323	$ 580,332
Accrued dividends	16,113	193,891
Accrued compensation	735,993	541,934
Accrued legal	43,474	145,816
Accrued expenses	659,069	402,962
	$ 2,009,972	$ 1,864,935

8. Stockholders Equity

Preferred stock

On January 25, 2005, we consummated the acquisition of Inovio AS, a Norwegian company. As part of this acquisition, we issued 1,966,292 shares of Series D Preferred Stock. Upon dissolution or liquidation of the Company, Series D Preferred Stock holders are entitled to the liquidation preference prior to any distribution of net assets to common shareholders at an amount equal to $3.20 per share of preferred stock, but are junior to Series C Preferred Stock. See Note 15 to these consolidated financial statements for further discussion of this acquisition. As of December 31, 2006 and 2005, 1,027,967 and 1,561,935 shares of Series D Preferred Stock were outstanding, respectively.

On May 20, 2004, we closed a private preferred share placement and raised an aggregate of $10,901,333 through the sale of our Series C Preferred Stock to institutional and accredited investors. Each holder of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Preferred Stock could be converted on the record date for the taking of a vote. In any event of our voluntary or involuntary liquidation, dissolution or winding up, before any distribution of our assets shall be made to or set apart for the holders of Common Stock, the holders of Series C Preferred Stock shall be entitled to receive payment out of our assets in an amount equal to $10,000 per share of Series C Preferred Stock plus any accumulated and unpaid dividends. The Series C Preferred Stock is convertible into our common stock at a conversion price of $6.80 per share, and there is

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

no escrow provision. As of December 31, 2006 and 2005, 102 and 337 shares of Series C Preferred Stock, respectively, were outstanding. Upon conversion, the Series C Preferred Stock outstanding as of December 31, 2006 and 2005 would convert into 149,992 and 495,764 shares of our common stock, respectively.

The holders of our Series C Preferred Stock are entitled to receive an annual dividend rate of 6%, in shares of common stock or cash, 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, 2005 and 2004, our Board of Directors declared dividends to the holders of our Series C Preferred Stock, which were paid through the issuance of our common stock, as well as cash. As part of this dividend to the holders of Series C Preferred Stock, in 2006 we paid cash of $117,204 and $14,571 of accrued dividends which were converted into common shares and warrants as part of our October 2006 private placement. As part of this dividend we paid cash of $553,694 in 2005 and in 2004 we issued 30,124 common shares valued at $133,693, and paid cash of $276,315.

Each holder received 35% warrant coverage at an exercise price of $8.80 per share exercisable through May 10, 2009. Warrants granted to holders of our Series C Preferred Stock entitle these investors the right to acquire 561,084 shares of our common stock. The placement agents for the Series C Preferred Stock were also granted warrants entitling the agents to acquire 152,519 shares of our common stock. Each placement agent s warrant entitles the holder to acquire one share of common stock at a price of $6.80 per share, exercisable through May 10, 2009. As of December 31, 2006, no warrants issued as part of this Series C Preferred Stock offering had been exercised.

On July 16, 2003 we closed a preferred share private placement and raised an aggregate of $15,670,000, through the sale of $8,170,000 of our Series A Preferred Stock and $7,500,000 of our Series B Preferred Stock, to institutional and accredited investors.

The holders of our Series A and B Preferred Stock received an annual dividend rate of 6%, in shares of common stock or cash, payable quarterly. Holders of Series A and B Preferred Stock were entitled to receive this quarterly dividend 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. In 2006, 2005 and 2004, our Board of Directors declared dividends to the holders of our Series A and B Preferred Stock, which were paid through the issuance of our common stock and cash. As part of this dividend to holders of Series A and B Preferred Stock, in 2006 we issued a total of 2,871 common shares valued at $7,693, and paid $15,140 in cash. We issued a total of 55,518 common shares valued at $179,956 and cash of $60,235 in 2005 and 73,072 common shares valued at $322,397 in 2004. 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.

Each holder received 40% warrant coverage at an exercise price of $3.00 per share exercisable through July 13, 2008. Warrants granted to holders of our Series A and B Preferred Stock entitle these investors the right to acquire 2,433,073 shares of our common stock. The placement agents for the Series A and B Preferred Stock were also granted warrants entitling the agents to acquire 447,060 shares of our common stock. Each placement agent s warrant entitles the holder to acquire one share of common stock

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

at a price between $2.40 and $2.80 per share, exercisable through July 13, 2008. As of December 31, 2006, warrants to purchase 694,549 shares issued as part of this offering had been exercised, resulting in $1,975,710 of proceeds. In addition, we issued 39,041 shares of our common stock valued at $116,500 as a placement agent fee in conjunction with the Series A and B Preferred Stock offering.

Upon dissolution or liquidation of the Company, the Series C Preferred Stock holders are entitled to a liquidation preference prior to any distribution of net assets to common shareholders.

Common Stock

In October 2006, we completed a private placement 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 $9,900,003. A portion of this private placement involved investors who converted 115.12 shares of Series C Preferred Stock and $14,571 of accrued dividends into 479,722 shares of our common stock together with warrants to purchase 167,902 shares of our common stock. All warrants included in the private placement have a term of five years and are exercisable at $2.87 per share. As of December 31, 2006, no warrants issued in connection with this private placement had been exercised.

Prior to completing the above financing, we incorporated Inovio Asia Pte. Ltd. (IAPL), a wholly-owned subsidiary of the Company, in the Republic of Singapore and thereafter granted IAPL an exclusive royalty-free license to use certain of our intellectual property in exchange for 6,584,365 ordinary shares of IAPL. In March 2007, we terminated our license agreement while retaining the number of ordinary shares.

In October 2006, IAPL completed a private placement issuing and selling 2,201,644 of its ordinary shares for cash in the amount $5,349,995. Under the agreement, these ordinary shares were exchanged for 2,201,644 shares of our common stock and five-year warrants to purchase up to 770,573 shares of our common stock at an exercise price of $2.87 per share on January 14, 2007.

We recorded an imputed dividend charge of $1,851,056 in October 2006 related to the investors who converted $1,151,200 of their previous 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*.

On December 30, 2005, we completed a private placement resulting in $15,795,080 in gross cash proceeds through the sale of our common stock to institutional and accredited investors that included Merck & Co. Inc. and Vical Inc., 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 $15,795,080; (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. The common stock issued was priced at $2.40 per share. The five-year warrants to purchase 35% of the number of shares of common stock they acquired in the offering were at an exercise price of approximately $2.93 per share. As of December 31, 2006, no warrants issued in connection with this private placement had been exercised. As a result of the use by existing holders of our Preferred Stock and Common Stock to acquire our shares and warrants in this private placement, we recorded a non-cash imputed dividend charge of $8,329,112 in our consolidated statement of operations for the year ended December 31, 2005. This imputed dividend charge was calculated using guidance

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

contained in Emerging Issues Task Force (EITF) Issue No. 00-27, Application of Issue No. 98-5 to Certain Convertible Instruments.

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 $3,037,500. As of December 31, 2006, no warrants issued as part of this private placement had been exercised.

A portion of this private placement involved investors who converted $3,200,000 of their previous investment in our Series C Preferred Stock into 790,123 shares of the common stock with no associated cash proceeds to us. In conjunction with this private placement, we received a subscription amount of $607,421 in cash in December 2004 from one investor in advance of signing the private placement agreement in January 2005. At the signing, each investor provided payment for at least 20% of the subscription amount, the balance was to be due at the earlier of (i) September 30, 2005 or (ii) the occurrence of an early triggering event, as set forth in the agreement. The balance of the original subscription amount, $4,990,000, was evidenced by full recourse promissory notes from the investor. In December 2005, the investors of this private placement either exercised their option to participate in the December 30, 2005 offering, discussed above, or settled their balances under the original transaction.

In September 2005, one investor converted $160,000 of its previous investment in our Series C Preferred Stock into 39,506 shares of our common stock as part of this private placement.

We recorded an imputed dividend charge of $1,942,773 in January 2005, related to the investors who converted $3,200,000 of their previous Series C Preferred Stock investment into 790,123 shares of our common stock as part of this private placement.

In December 2006, we issued 45,000 fully vested common shares to an employee in exchange for services rendered, and 45,000 common shares which vest after three years in exchange for future services to be rendered. The fair value of these shares was determined to be $3.15 per share which is the closing price on the date of grant.

In July and October 2006, we issued 25,000 and 24,261 common shares, 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.

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, 2006, this warrant remained outstanding.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

On January 21, 2003, we entered into a $1,000,000 bridge loan with a major shareholder. Warrants to purchase 15,000 shares of our common stock at $0.04 per share were granted in lieu of interest being charged to the loan. The warrants were valued at $19,800 using a fair value model and were charged to interest expense. In February 2003, the bridge loan was paid in full with proceeds from the sale of the BTX Division. During March 2004, all of such warrants were exercised.

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, 2006, no warrants issued in connection with this licensing agreement had been exercised.

Stock options

We have one stock option plan, our 2000 Stock Option Plan (the 2000 Plan), pursuant to which we grant stock options to executive officers, directors, employees and consultants. The plan was adopted on July 31, 2000, approved by the stockholders on August 7, 2000 and approved by the stockholders as amended through May 5, 2006. As amended, the 2000 Plan covers 4,750,000 common shares for issuance upon exercise of options granted and to be granted. Under the 2000 Plan, we had 898,619 shares of common stock available for future grants and options to purchase 2,728,402 shares outstanding at December 31, 2006. The options granted and available for future grant under the 2000 Plan generally have a term of ten years and vest over a period of three years. The 2000 Plan terminates by its terms on July 30, 2010.

The 2000 Plan supersedes all of our previous stock option plans, which include our 1995 Stock Option Plan, under which we had options to purchase 5,000 shares outstanding at December 31, 2006 and our 1997 Stock Option Plan, under which we had options to purchase 65,498 shares outstanding on December 31, 2006.

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, 2006, 2005 and 2004, was $202,604, $116,382 and $413,320, respectively. As of December 31, 2006 and 2005, 336,937 and 251,775 options remained outstanding, respectively.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the stock options outstanding at December 31, 2006:

	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
$1.00-$2.00	520,063	5.6	$ 1.50	520,063	$ 1.50
$2.01-$4.00	1,661,965	7.8	$ 2.76	899,152	$ 2.70
$4.01-$6.00	443,249	7.0	$ 4.92	330,434	$ 4.98
$6.01-$8.00	103,125	4.3	$ 6.30	103,125	$ 6.30
$8.01-$22.00	70,498	1.5	$ 11.56	70,498	$ 11.56
	2,798,900	7.0	$ 3.22	1,923,272	$ 3.29

At December 31, 2006, the aggregate intrinsic value of options outstanding was $1,921,390, the aggregate intrinsic value of options exercisable was $1,520,875 and the weighted average remaining contractual term of options exercisable was 6.3 years.

At December 31, 2005, the aggregate intrinsic value of options outstanding was $522,929, the aggregate intrinsic value of options exercisable was $476,407 and the weighted average remaining contractual term of options exercisable was 5.7 years.

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

	Number of shares	Weighted-average exercise price
Balance, December 31, 2003	1,809,369	$ 2.72
Granted	624,375	4.58
Exercised	(140,821)	(1.92)
Cancelled	(199,210)	(5.93)
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

The weighted average exercise price was $5.53 for the 167,687 options which expired during the year ended December 31, 2006, $4.24 for the 139,913 options which expired during the year ended December 31, 2005 and $8.02 for the 116,981 options which expired during the year ended December 31, 2004.

INOVIO BIOMEDICAL CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The weighted average grant date fair value per share was $2.18 for options granted during the year ended December 31, 2006, $3.05 for options granted during the year ended December 31, 2005 and $3.47 for options granted during the year ended December 31, 2004.

The aggregate intrinsic value of options exercised was $158,042 during the year ended December 31, 2006, $32,556 during the year ended December 31, 2005 and $424,069 during the year ended December 31, 2004.

A summary of the Company s nonvested shares as of December 31, 2006 and activity during the year is as follows:

	Number of shares	Weighted-average grant-date fair value
Nonvested at January 1, 2006		$
Granted	90,000	3.15
Vested	(45,000)	3.15
Forfeited		
Nonvested at December 31, 2006	45,000	$ 3.15

As of December 31, 2006 there was $139,337 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 3 years.

9. Commitments

Rent expense was $488,774, $553,229, and $372,765 for the years ended December 31, 2006, 2005 and 2004, respectively. This amount is net of sublease income of $37,950 in 2006. We do not have any active leases under capital lease arrangements. As of December 31, 2006, future minimum lease payments under non-cancelable operating leases are as follows:

2007	$ 489,224
2008	491,988
2009	499,490
2010	80,477
2011	
Thereafter	
Total	$ 1,561,179

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.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Income Taxes

As of December 31, 2006, we had federal and California income tax net operating loss carryforwards of approximately $77,015,000 and $46,886,000, respectively. The federal loss carryforwards will begin to expire in 2008 unless previously utilized. The California loss carryforwards will continue to expire in 2007. The difference between the federal and California tax loss carryforwards 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 carryforwards. In addition, we have federal research tax credit carryforwards of approximately $1,257,017 which will continue to expire in 2007 unless previously utilized, and California research tax credit carryforwards of approximately $695,512 which do not expire. At December 31, 2006, the Company had foreign tax loss carryforwards related to the acquisition of Inovio A.S. of approximately $3,597,507. The foreign net operating loss carryforwards 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, in any as a reduction of income tax expense.

Pursuant to Internal Revenue Code Sections 382 and 383, annual use of the subsidiary s net operating loss and credit carryforwards may be limited because of a cumulative change in ownership of more than 50%.

Significant components of our deferred tax assets and liabilities as of December 31, 2006 and 2005 are shown below:

	As of December 31, 2006	**As of December 31, 2005**
Deferred tax assets:		
Capitalized research expense	$ 785,000	$ 411,000
Net operating loss carryforwards	30,650,000	28,510,000
Research and development and other tax credits	1,732,000	1,596,000
Other	3,001,000	1,080,000
	36,168,000	31,597,000
Valuation allowance	(36,168,000)	(31,532,000)
Total deferred tax assets		65,000
Deferred tax liabilities:		
Difference between book and tax basis for patent and license costs		(65,000)
Acquired intangibles	(1,013,250)	(1,076,250)
Net deferred tax liabilities	$ (1,013,250)	$ (1,076,250)

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

The net deferred tax liability of $1,013,250 as of December 31, 2006, resulted from the acquisition of Inovio AS, (see Note 15) and reflects the net effect of a temporary difference between the carrying amount of intangible assets for financial reporting purposes and the amount used for income tax purposes. This liability will be amortized over the life of the underlying intangibles, which is 18 years, and will be

INOVIO BIOMEDICAL CORPORATION
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accounted as an income tax recovery. 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, 2006	Year ended December 31, 2005	Year ended December 31, 2004
Income taxes at statutory rates	$ (4,368,000)	$ (5,374,000)	$ (3,841,000)
State income tax, net of federal benefit	(659,000)	(676,000)	(625,000)
Change in valuation allowance	4,636,000	4,486,000	4,674,000
Write off of in-process research and development		1,166,000	
Other	328,000	340,000	(208,000)
	$ (63,000)	$ (58,000)	$

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

11. 401(k) Plan

In 1995, our U.S. subsidiary adopted a 401(k) Profit Sharing Plan (the Plan) covering substantially all of its employees in the U.S. 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. This contribution is recorded as expense in the accompanying consolidated statements of operations as incurred. Our contributions are invested in our common shares on behalf of the participants.

Our contributions to the Plan totaled $44,529, $62,450 and $23,410 for the years ended December 31, 2006, 2005 and 2004, respectively.

12. Segment Information

Pursuant to our acquisition of Inovio AS (see Note 15), the Company operated 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, 2006 revenues in Europe and the United States totaled $261,935 and $3,206,243, respectively, and during the year ending December 31, 2005 revenues in Europe and the United States totaled $379,250 and $5,088,003, 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, 2006, long-lived assets in Europe and the United States totaled $7,909,344 and $2,895,543, respectively, and as of December 31, 2005, long-lived assets in Europe and the United States totaled $8,187,050 and $2,338,997, respectively.

13. Related Party Transactions

During the years ended December 31, 2006, 2005 and 2004, we made payments of $4,828, $20,930 and $111,345, respectively, for legal services formerly provided by Catalyst Corporate Lawyers, where one of the former partners is the Chairman of our company. There was $34,470 of expenses paid to Catalyst Corporate Lawyers and included in share issuance costs for the year ended December 31, 2004. There were no such expenses in the years ended December 31, 2006 and 2005. All transactions are recorded at their exchange amounts.

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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, 2006, 2005, and 2004, were $371,018, $3,542,521 and $692,124, respectively.

14. Supplemental Disclosures of Cash Flow Information

	Year ended December 31, 2006	Year ended December 31, 2005	Year ended December 31, 2004
Supplemental schedule of financing activities:			
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	$ 456,090
Cashless exercise of warrants	$	$ 43	$ 40
Conversions of preferred stock to common stock	$ 1,764	$ 3,944	$ 1,741
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	$ 172,054	$	$
Investment received in exchange for licensing agreement	$ 125,000	$	$

15. Inovio AS Acquisition

On January 25, 2005, we consummated the acquisition of Inovio AS, a Norwegian company (the Acquisition). The Acquisition expands our intellectual property in electroporation, expands the number of agreements with major pharmaceutical companies, and provides for the near-term initiation of a Phase I/II DNA vaccine clinical trial. Inovio AS is a complement to our existing electroporation therapy program. Under the terms of the transaction, we acquired the entire share capital of Inovio for an aggregate purchase price of $10,904,494; $3,000,000 of the purchase price consisted of cash and $7,904,494 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, 2006, 938,325 shares of the Series D Preferred Stock had been converted into 938,325 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

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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 $8,000,000, of which at least $1,000,000 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 $2,000,000 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 $16,000,000 (including the $8,000,000 in payment commitments noted above), of which at least $2,000,000 (including the $1,000,000 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 $1,000,000 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 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	$ 7,904,494
Cash	3,000,000
Transaction costs	121,517
Total consideration	$ 11,026,011

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

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$3,332,000, and an intangible asset related to acquired contracts and intellectual property of approximately $4,050,000. The $3,332,000 assigned to acquired in-process research and development was recorded as an expense in the consolidated statement of operations for the year ended December 31, 2005.

The following unaudited pro forma financial information combines the results of operations of Inovio Biomedical Corporation and Inovio AS assuming the Acquisition was consummated on January 1, 2004. The pro forma results are not necessarily indicative of what would have occurred if the Acquisition had been in effect for the periods presented. In addition, they are not intended to be a projection of future results and do not reflect any synergies that might be achieved from combined operations.

	Year Ended December 31, 2006	2005	2004(1)
Revenue	$ 3,468,178	$ 5,467,253	$ 1,429,981
Net loss attributable to common stockholders	$ (14,484,788)	$ (23,331,206)	$ (16,269,252)
Net loss per share attributable to common stockholders	$ (0.46)	$ (1.23)	$ (0.83)

(1) Includes the effect of the $3,332,000 charge for acquired in-process research and development.

16. Quarterly Financial Information (Unaudited)

The following unaudited quarterly financial information reflects all normal recurring adjustments, which are, in the opinion of management, necessary for a fair statement of the results of the interim periods. The four quarters for per share figures may not add for the year because of the different number of shares outstanding during the year. Summarized unaudited quarterly data for the years ended December 31, 2006 and 2005, are as follows:

	Quarter Ended December 31, 2006	Quarter Ended September 30, 2006	Quarter Ended June 30, 2006	Quarter Ended March 31, 2006
Revenue	$ 1,531,666	$ 575,829	$ 662,690	$ 697,993
Net loss	(3,387,613)	(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	(5,254,783)	(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)	(0.00)	(0.00)	(0.00)
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

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	Quarter Ended December 31, 2005	Quarter Ended September 30, 2005	Quarter Ended June 30, 2005	Quarter Ended March 31, 2005
Revenue	$ 829,236	$ 724,480	$ 2,951,616	$ 961,921
Net loss	(3,035,249)	(2,990,799)	(2,131,005)	(7,139,799)
Imputed and declared dividends on preferred stock	(8,523,003)	(199,648)	(197,628)	(2,145,491)
Net loss attributable to common stockholders	(11,558,252)	(3,190,447)	(2,328,633)	(9,285,290)
Amounts per common share basic and diluted:				
Net loss	$ (0.16)	$ (0.16)	$ (0.11)	$ (0.38)
Imputed and declared dividends on preferred stock	(0.44)	(0.01)	(0.01)	(0.12)
Net loss attributable to common stockholders	$ (0.60)	$ (0.17)	$ (0.12)	$ (0.50)
Weighted average number of common shares basic and diluted	19,293,918	19,083,983	19,022,474	18,628,245

The net loss for the quarter ended March 31, 2005 includes the recorded in-process research and development expense of $3,332,000 related to the Inovio AS acquisition (see Note 15).