INOVIO PHARMACEUTICALS, INC.

FORM 10-K
(Annual Report)

Filed 03/31/03 for the Period Ending 12/31/02

Address	11494 SORRENTO VALLEY ROAD
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2002

OR

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

FOR THE TRANSITION PERIOD FROM TO

COMMISSION FILE NO. 0-29608

GENETRONICS 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.)
11199 SORRENTO VALLEY ROAD **SAN DIEGO, CALIFORNIA** (Address of principal executive offices)	**92121-1334** (Zip Code)

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

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

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

COMMON STOCK, $0.001 PAR VALUE
(Title of Class)

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

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

Indicate by check mark if whether the Registrant is an accelerated filer (as defined, in Exchange Act Rule 12b-2). Yes ☐ No ☒

The number of shares outstanding of the Registrant's Common Stock, $0.001 par value, was 50,423,552 as of March 14, 2003. The aggregate market value of the voting stock (which consists solely of shares of Common Stock) held by non-affiliates of the Company as of March 14, 2003 was approximately $15,905,004 based on $0.32, the closing price on that date of Common Stock on the American Stock Exchange. *

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* Excludes 720,413 shares of Common Stock held by directors and officers, and shareholders whose beneficial ownership exceeds 10% of the shares outstanding on March 14, 2003. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of

the management or policies of the Company, or that such person is controlled by or under common control with the Company.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's definitive Proxy Statement issued in connection with the Annual Meeting of Stockholders of the Registrant to be held on or about May 22, 2003 are incorporated herein by sequence into Part III. Certain exhibits filed with the Registrant's prior filings with the SEC are incorporated herein by reference into Part IV of this report.

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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. THE COMPANY'S 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. THE COMPANY UNDERTAKES 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 1 UNDER THE CAPTION "CERTAIN RISK FACTORS RELATED TO THE COMPANY'S BUSINESS," IN PART II, ITEM 7 UNDER THE CAPTION "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 THE COMPANY FILES FROM TIME TO TIME WITH THE SECURITIES AND EXCHANGE COMMISSION, INCLUDING ITS 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 San Diego-based biomedical company developing drug and gene delivery systems that use Electroporation Therapy (EPT) to deliver drugs and genes into cells. We are developing and commercializing novel medical therapies based on electroporation, addressing critical unmet treatment needs. Clinical results validate the unique capability of our local cancer therapy to preserve healthy tissue while treating solid tumors, which consists of our MedPulser® System to deliver an electroporation pulse in combination with the chemotherapy drug bleomycin (bleo). Pre-clinical evidence indicates that our non-viral gene delivery platform may be instrumental in fulfilling the promise of important gene therapies, and warrants initiation of clinical trials. We believe that the planned commercial launch of our oncology therapy in 2004, in Europe, is an important milestone following significant investment to date. We believe that our compelling asset base of intellectual property, scientific and engineering accomplishment and know-how, and validating clinical results position us as a leader in EPT.

Modern medicine's quest to improve therapeutic outcomes while reducing treatment costs is strongly focused on emerging drugs and gene therapies. Many drugs and all gene therapies act on cellular machinery inside cells, and delivering beneficial molecules through a cell's membrane is a critical, persistent challenge. We believe that our electroporation solution is an effective, safe, and economical method of intracellular molecular delivery in selected local tissue. After therapeutic agents are injected, our pulse generator and applicator are used to deliver brief, controlled electrical pulses into the tissue. The pulses transiently increase cell permeability, enabling dramatic increases in cellular uptake of beneficial molecules. Significant enhancement to chemotherapeutic cytotoxicity and DNA delivery, gene expression, and desired physiological response are well established. We have identified many potential applications for developing drug delivery systems that are designed to use EPT to enhance drug or gene delivery. Currently, the two main areas being developed are oncology and gene therapy.

RECENT DEVELOPMENT OF THE BUSINESS OF THE COMPANY

On May 8, 2002, we announced a Phase III trial for late stage, recurrent head and neck cancer. As part of that trial process we completed the review of our protocols with a number of Institutional Review Boards, representing institutions in the US. The goal of Phase III trial is to demonstrate increased survival in patients receiving EPT+bleo in combination with the normal standard of care, compared to patients receiving the normal standard of care only. Subsequent to 2002, we announced in a Corporate Update released on January 27, 2003, that we are in the process of preparing two new protocols for trials that compare EPT+bleo to surgery. In the newly proposed trials, the primary endpoint is tissue and function preservation, rather than survival. One proposal is for recurrent head and neck cancer and the other is for disfiguring cutaneous cancer.

On March 27, 2002, we announced the results from an ongoing European market seeding trial involving a number of acclaimed cancer centers. Eighteen patients with newly diagnosed, previously untreated stage T1 or T2 head and neck cancer were treated with EPT + bleo. The treated tumor area and a small margin was excised after 4 weeks in the 18 patients treated, in 16 patients there was no evidence of disease in a histological examination of the excised mass. This equates to a complete response rate of 89%. We have continued to carry out clinical studies in Europe using the MedPulser® System to deliver bleomycin for the treatment of cancer. The results from these clinical studies allowed us to obtain CE Mark certification qualifying the MedPulser® System for sale in Europe. We are continuing to carry out clinical trials in Europe using the MedPulser® System to deliver bleomycin for the treatment of both early and late stage head and neck cancer patients. We anticipate a commercial launch to occur in Europe in fiscal 2004, based on continued positive results from market seeding trials in 2003. See "Business Objectives and Milestones".

Our focus on non-viral gene delivery thus far has continued to be on research collaborations where our partner assumes the cost of animal models using our proprietary EPT and their proprietary gene construct. The collaborator and we share the data jointly. As a result, we have entered into an aggregate of 22 collaborative

agreements with entities such as Boehringer Ingelheim International GmbH, Chiron, Valentis, Johnson & Johnson Research Pty Ltd, and two United States Naval Medical Centers to assess the viability of using our MedPulser® System for various gene therapy applications. See "Gene Therapy — Partners and Collaborations".

On December 3, 2002, we announced the extension of our collaboration with Chiron, to continue to explore the delivery of its proprietary DNA vaccine for HIV using EPT, with the potential for possible clinical development. In our current fiscal year, we plan to enter into at least two agreements with respect to the licensing of our MedPulser® System for use in the delivery of specific genes and to initiate pre-clinical studies as a precursor to our own clinical trials with respect to the use of our MedPulser® System for the delivery of a gene found in the public domain or which we have in-licensed. See "Business Objectives and Milestones" and "Gene Therapy— Partnerships and Collaborations".

On January 17, 2003, we voluntarily de-listed from the Toronto Stock Exchange (TSE) where our common stock had been listed since September 2, 1997. The decision was made to decrease the time required and costs of dual regulatory filings, to concentrate all of the volume on one exchange and to focus on building a higher profile with our expanding domestic investor base.

On January 31, 2003, we sold the majority of the assets of our BTX Instrument Division to Harvard Biosciences. The BTX Instrument Division developed, manufactured, and marketed electroporation instrumentation and accessories used by scientists and researchers in research laboratories worldwide to perform genetic engineering techniques, such as cell fusion, gene transfer, cell membrane research and genetic mapping.

BUSINESS OBJECTIVES AND MILESTONES

Our goal is to accomplish the following business objectives and milestones over the next 18 months:

(1) initiate additional Phase III clinical trials in the United States using EPT + bleo for the treatment of head and neck cancer that has failed primary therapy and is a candidate for surgical resection, as soon as approval to initiate this treatment is received from the FDA. (see "Oncology —Overview");

(2) continue market seeding trials in multiple leading centers in Europe, using EPT+bleo for the treatment of both early and late stage head and neck cancer, to build a strong data set for marketing the MedPulser® System. (see "Oncology —Overview");

(3) initiate clinical trials using EPT+ bleo for the treatment disfiguring cutaneous cancer, where the primary endpoint is tissue and function preservation, as soon as approval to initiate this treatment is received from the FDA (see "Oncology —Overview");

(4) commercially launch of our MedPulser® System to deliver bleomycin for the treatment of head and neck cancer in Europe, (see "Oncology —Overview"); and

(5) Enter into at least two agreements with respect to the licensing of our EPT technology for use in the delivery of specific genes. (see "Gene Therapy — Overview").

DRUG AND GENE DELIVERY

We develop equipment that is designed to allow physicians to use EPT to achieve more efficient and cost-effective delivery of drugs or genes to patients with a variety of illnesses. Although there are many diseases where improved drug or gene delivery is important, we believe that our greatest opportunities lie in applying EPT in the areas of oncology and gene therapy and we are focusing our efforts on these applications.

ONCOLOGY

OVERVIEW

In the area of oncology, we have completed Phase II clinical trials in the United States using the MedPulser® System to deliver bleomycin for the treatment of late stage head and neck cancer. Bleomycin is a very effective generic chemotherapeutic agent that induces single and double strand DNA breaks in cancer cells; however, because of its size it is difficult to deliver across the cell membrane. We have chosen bleomycin as the chemotherapeutic agent that we deliver for the treatment of cancer because of its aggressive effect as a chemotherapeutic agent and because EPT appears to overcome its delivery challenges. Bleomycin has been approved by the FDA in the United States and the Health Protection Branch in Canada, and has been used as a chemotherapeutic agent in North America for the treatment of certain cancers for more than 25 years.

Initially, we prioritized head and neck (H&N) and cutaneous cancers. A Phase II trial using EPT and bleomycin to treat late stage recurrent H&N squamous cell carcinoma produced a 25% complete response and 57% objective response, which are excellent results at this disease stage. In an early stage European oral cavity squamous cell carcinoma trial, 17 out of 20 patients (85%) showed no viable cancer cells, validating EPT's potential as a primary treatment for H&N cancer. Anecdotally, in a cutaneous cancer trial, 130 of 146 tumors (89%) demonstrated a complete response. Using significantly smaller chemotherapeutic doses, results to date show that EPT matches or exceeds tumor response and survival results of current therapies while preserving healthy tissue, and resulting in nominal systemic drug distribution and related side effects, and potentially at lower cost. EPT potentially preserves a patient's appearance or ability to speak, smell, eat, or taste, uniquely enhancing the quality of life of such patients suffering from cancer's harsh effects.

We have completed a number of other clinical studies in Europe, Canada and Australia using the MedPulser® System to deliver bleomycin for the treatment of liver, pancreatic, basal cell and Kaposi's sarcoma cancers. The results from the clinical studies that we carried out in Europe have allowed us to obtain a CE Mark certification qualifying the MedPulser® System for sale in Europe. We are continuing to carry out and expand our market seeding clinical studies in Europe using the MedPulser® System to deliver bleomycin for the treatment of both early and late stage head cancer.

In addition to our work in head and neck cancer, we plan to use the MedPulser® System to deliver bleomycin for the treatment of other cancers. We are currently reviewing a number of other cancer indications in order to assess our competitive advantage for the treatment of cancers and the size of the market that we might serve. The next application for which we are preparing protocols for submission to the FDA, are for disfiguring cutaneous cancers, that may benefit from the tissue and function sparing attributes of EPT+bleo.

PARTNERSHIPS AND COLLABORATIONS

On September 20, 2000, the University of South Florida Research, Inc. ("USF") granted us an exclusive, worldwide license to its rights for certain patents and patent applications generally related to needle electrodes. The agreement is effective as of May 9, 1995. Genetronics and USF jointly developed these electrodes. 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, 2002, no royalty had accrued as we had not yet generated any sales from this product. In addition, we issued a total of 150,000 Common Shares and a total of 600,000 Warrants (some of which will vest subject to the occurrence of specified milestones) to USF and its designees, Drs. Heller, Jaroszeski, and Gilbert.

On October 6, 1998, we entered into a License and Development Agreement and a Supply Agreement with Ethicon, Inc., a Johnson & Johnson company, involving the use of our MedPulser® System for EPT Therapy for the treatment of solid tumor cancer. In addition, Johnson & Johnson Development Corporation purchased $6 million of our Common Shares at a price of $2.68 per share, pursuant to a Stock Purchase Agreement. On August 5, 1999, we announced that Ethicon, Inc. had assigned the License and Development Agreement and Supply Agreement to Ethicon Endo-Surgery, Inc., another Johnson & Johnson company. On July 26, 2000, we received written notice from Ethicon Endo-Surgery, Inc. that it had elected to exercise its discretionary right to terminate, without cause, the License and Development and Supply Agreement. As a result, all rights for the development and distribution of

Genetronics proprietary EPT drug delivery system for the treatment of cancer were returned to us on January 22, 2001.

On October 31, 1997, we entered into a supply agreement with Abbott Laboratories ("Abbott") to purchase the approved anti-cancer drug bleomycin for use in the United States with our MedPulser® System after regulatory approval had been granted for its use for the treatment of patients with solid tumor cancers. Under a separate agreement, we entered into a supply agreement with Faulding, Inc. to purchase bleomycin for use in Canada after regulatory approval had been granted for its use. Both agreements provide that we may purchase bleomycin from time to time in accordance with the terms of the respective agreements. Both agreements continue on a year to year until terminated by either party.

MARKET

We hope to market our MedPulser® System to deliver chemotherapeutic agents, such as bleomycin, for the treatment of cancer. EPT can address many diseases, but we have focused on oncology's significant unmet needs. Cancer is the second largest cause of death in most developed nations. In the U.S in 2002, there were an estimated 1.28 million new cancer cases (excluding over 800,000 new cutaneous cancer cases) and 555,500 deaths. The average five-year relative survival rate of patients with treated non-cutaneous cancers improved from 50% in 1974-76 to 62% in 1992-97. Conventional therapies also negatively impact quality of life: surgery can detrimentally affect appearance and organ function; radiation and chemotherapy cause significant negative side effects and possess other drawbacks. In the United States the costs of cancer, including mortality, morbidity and direct medical costs, exceed $107 billion per year: approximately $37 billion for direct medical costs (total of all health expenditures); at least $11 billion for indirect morbidity costs (cost of lost productivity due to illness); and over $59 billion for indirect mortality costs **.** In the United States, the cumulative dollar value of treatments and technologies commonly used in the curative and palliative management of cancer exceeded $8 billion in 1999 and is expected to continue to grow at a rate of approximately 12% annually.

There is still much that scientists do not know about cancer; consequently, there are significant unmet needs in its treatment. We have initially targeted those indications, such as head and neck cancer, for which current treatments result in a poor quality of life and very high mortality rates.

TREATMENT OF TUMORS

The use of EPT is quite simply understood and easy to apply:

- The physician selects and connects the sterile applicator appropriate for the nature and location of the tumor or other application.
- The patient is given general anesthetia in a hospital operating room setting. Certain future applications may require only local anesthetia.
- The drug is injected into the selected tissue, followed by a brief (few-minute) wait.
- The applicator needles are then inserted into the tumor or selected area.
- The physician clinician activates the electrical pulse using a foot pedal or hand switch.
- For a larger tumor or area, the applicator is reinserted in an overlapping pattern to cover the entire tissue area requiring treatment.
- After treatment, the needle array applicator is disposed of.

The entire procedure can be completed within 20 minutes or less and typically needs to be done only once. The dosage of drug used in the published results is based on tumor volume, and is typically a small fraction (1/3 to

as little as 1/50th) of the dosage that would be used if injected systemically into the patient's blood, as is usually done in with chemotherapy. As a result of the lower dosage administered locally, side effects have been minimal. No episodes of injury to normal (non-tumor) tissue adjacent to the tumors have been observed in the patients treated to date.

CLINICAL TRIALS - Head and Neck Cancer

North America Trials

In late 1997 the FDA granted us clearance to initiate multi-center Phase II clinical trials in the United States utilizing the MedPulser® System in combination with bleomycin to treat squamous cell carcinoma of the head and neck in late stage patients who had failed conventional therapies such as surgery or chemotherapy. We obtained IND equipment clearance from the Canadian Health Protection Branch to initiate similar clinical trials in Canada. Two Phase II protocols were initiated. The first Phase II protocol was a cross-over-controlled study evaluating the effectiveness of using the MedPulser® System to deliver bleomycin to treat tumors that failed an initial bleomycin-alone treatment. The second Phase II protocol was a single arm study that evaluated the effect of bleomycin as an initial treatment of the tumors.

Twenty-five patients were enrolled in the cross-over controlled study and 25 patients were enrolled in the single arm bleomycin-EPT trial. The results based on the primary endpoint for response (greater than or equal to 50% reduction in tumor size) are provided in the table below.

			Response(1)	
Clinical Trials and Studies	**Patients**	**Tumors**	**Responding Tumors(2)**	**Non-Responding Tumors**
North America Phase I/II — bleomycin/EPT	8	8	6(75%)	2 (25%)
North America Phase II — bleomycin only	25	37	1 (3%)	36 (97%)
North America Phase II — bleomycin/EPT	17	20	11(55%)	9 (45%)
North America Phase II — bleomycin/EPT	25	31	18(58%)	13 (42%)
European Study — bleomycin/EPT	12	18	10(56%)	8 (44%)

(1) Four tumors could not be evaluated. The fact that these tumors could not be evaluated did not adversely affect the overall tumor response.

(2) This represents overall tumor response, which includes complete and partial responses to treatment. Complete response means that no sign of the tumor is present. Partial response means that response to the treatment is greater than or equal to 50% reduction in tumor size.

The two Phase II protocols involved a total of 51 tumors treated with bleomycin and EPT. Tumors treated in the trial include squamous cell carcinoma of the face, oral cavity, pharynx, larynx and sinus. The size of tumors treated ranged from less than one cubic centimeter to more than 132 cubic centimeters. In the crossover controlled Phase II study, patients initially received only bleomycin. Patients who did not respond to bleomycin alone were then treated with the complete system of bleomycin and EPT. Of the 37 tumors in 25 patients treated only with bleomycin, only one demonstrated a partial clinical response. Seventeen of these patients, having 20 lesions, were subsequently treated with bleomycin and EPT and 55% achieved an overall (complete + partial) clinical response. In the open-label Phase II (single arm) study, all patients received full bleomycin and EPT as their initial treatment.

Among the 25 patients (31 tumors) so treated, 58% achieved an overall clinical response of 50% or greater reduction of tumor size.

International Trials

In late 1997 and early 1998, we received ethics committee approval from multiple Consulting Committees for the Protection of Humans in Biomedical Research to initiate clinical trials in France in patients with pancreatic cancer, metastatic cancer of the liver, head and neck cancer, melanoma and Kaposi's sarcoma. These trials were initiated to demonstrate the MedPulser® System device's safety and performance in treating a variety of solid tumors in support of CE Mark certification in accordance with the essential requirements of Medical Device Directive 93/42/EEC. Results from the patients with head and neck cancer are reported under the European Study for the aforementioned Clinical Trials above. We received CE Mark certification in March 1999. This certification allows us to market our MedPulser® System within the countries in the European Union. More recently, in market seeding trials in Europe for early stage oral cavity squamous cell carcinoma, 17 of 20 patients (85%) showed no viable cancer cells, validating EPT's potential as a primary treatment for H&N cancer. These market seeding trials will be ongoing in fiscal 2003.

RESEARCH AND DEVELOPMENT

We have historically directed our research and development activities to the areas of oncology, gene therapy, vascular therapy, transdermal delivery and dermatology. Currently, our areas of focus are oncology and gene therapy.

The following table summarizes our programs in the area of oncology, the primary indications for each product and the current status of development. "Pre-clinical data" means the program is at the stage where results from animal studies have been obtained. "Clinical Trials" means that human data is available. In March 1999, we received CE Mark certification in Europe. This certification allows us to market our MedPulser® System within the countries in the European Union. Commercial launch is dependent on having compelling marketing data from the ongoing market seeding trials.

Clinical Development Status

Progress in Pre-Clinical Development and Clinical Trials Applications	**Pre-Clinical**			**Clinical**		
	In Vitro	**In Vivo**	**Ex Vivo**	**Human Studies***	**Phase I/II**	**Phase III**
Therapeutic Drug Delivery						
Oncology						
Head & Neck	✓	✓		✓	✓ (II)	IP
Cutaneous BCC & SCC	✓	✓		✓		
Melanoma	✓	✓		✓		
Kaposi's Sarcoma	✓	✓		✓		
Pancreas	✓	✓		✓		
Liver	✓	✓		✓		
Breast	✓	✓				
Prostate	✓	✓				
Hepatocellular Carcinoma	✓	✓				
Lewis Lung Carcinoma	✓	✓				
Non-Small Cell Lung	✓	✓				
Fibrosarcoma	✓	✓				
Glioma	✓	✓				
Ovarian	✓					
Dermatology						
Vitamin C	✓	✓				
Warts	✓	✓				
Vascular	✓	✓				
DNA Delivery						
DNA Vaccines	✓	✓	✓			
Gene Therapy	✓	✓	✓			

✓ = *Completed*
IP = In Progress
** Efficacy studies conducted in Europe with approval of selected clinics' Investigational Review Boards (IRB) or in the U.S. by clinics' Ethics Committees*

Our research and development efforts in the field of oncology will focus on preparing for a strategic alliance with a major partner in oncology, expanding applications of the MedPulser® System, and designing the next generation of EPT devices. Preparations for forging a strategic alliance include the organization and summarizing of pre-clinical and engineering data and records to be able to convey information to strategic partners in the most effective manner. The expansion of the MedPulser® System to additional applications is intended to involve pre-clinical and engineering work regarding the delivery of drugs other than bleomycin, treatment of additional types of cancers, and the design and manufacture of new types of electrode applicators, such as an applicator for treating laryngeal cancer. We intend for our research into the development of second generation EPT devices for cancer treatment to include an analysis of the efficacy of different frequencies of electroporation and the possible development of a device specifically targeted for treating deep-seated tumors, such as prostate tumors. Finally, we intend to continue to strengthen our intellectual property position in the oncology area by pursuing patent protection of any new inventions.

COMPETITION

Current Treatment Practices

Surgery

The primary treatment (90%) for localized and operable tumors or lesions is surgical resection alone or in combination with other modalities. Given the ability to cut an appropriate margin around the tumor, surgery is highly effective for early stage cancers, but accessibility to a tumor and limited margin often prevent its use. The drawback of cutting away tissue is potential disfigurement or debilitating effects on organ function. Surgery may require a costly hospital stay.

Radiation Therapy

Radiation therapy's high-energy rays, generated by an external machine or radioactive materials placed directly into or near the tumor, are used to damage and stop growth of malignant cells. It is typically used in conjunction with surgery to shrink the tumor prior to surgical removal, or afterwards to destroy remaining cancer cells. It damages healthy cells surrounding the target area and is expensive.

Chemotherapy

Where surgery is not an option, chemotherapy is often combined with radiation. Typically a secondary or palliative treatment with the goal of helping control tumor growth and making a patient more comfortable, it is used under the following circumstances:

- When a cancer has advanced from a local tumor and has become a larger regional mass or has metastasized to other organs;

- When the tumor is difficult to access;
- For organ preservation, when appearance and/or function are threatened; and
- For palliation, to achieve tumor shrinkage that may improve quality of life.

The cytotoxicity of many existing anti-cancer drugs is well proven, but their systemic application in required high dosages produces many detrimental side effects, including: alopecia (loss of hair), nausea, vomiting, myelosuppression and can produce drug resistance.

Surgery and radiation cannot be used where treatment risks affecting 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 are 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 proven efficacy in treating solid tumors. It also destroys surrounding healthy tissue which can result in burns.

In October 2002, RITA Medical Systems announced that a study of its system for ablation of nonresectable (not treatable with surgery) primary or metastatic liver cancer showed increased median survival rates of two- to three-fold compared to historical survival rates for patients treated with chemotherapy alone. It also separately announced separately that it received clearance from the FDA to market a procedure to ease pain caused by bone tumors. The study showed that 95 percent of patients treated with the procedure experienced a clinically significant reduction in pain from bone tumors. We understand that its product is establishing early commercial success and RITA Medical Systems is expanding its focus to other indications. Genetronics anticipates that radio frequency ablation may be a competitive treatment it may need to content with.

Photodynamic Therapy (PDT)

PDT uses intravenous administration of a light activated drug that naturally accumulates in malignant cells. A non-thermal laser is used to activate the drug, producing a free radical oxygen molecule that destroys the cancer. PDT has low risk of damage to adjacent normal tissue, the ability to retreat, and can be used concurrently with other treatment modalities. A major side effect of PDT is photosensitivity that can last up to six to eight weeks. Other side effects include nausea and vomiting. This method is limited to penetration just below the skin or organ lining.

Scotia Holdings' Foscan was once thought to be a promising PDT technology. In 2000, Scotia Holdings completed a Phase II trial in patients with advanced H&N cancers. Focused on palliative clinical benefit, Scotia Holdings announced that 24% of evaluable patients (64) had an objective palliative response. Scotia announced that complete tumor response occurred in 11% of patients, and overall tumor response was 25%. In January 2001, Scotia Holdings announced that the Committee for Proprietary Medicinal Products (CPMP) of the European Medicines Evaluation Agency (EMEA) had indicated its decision to move to a negative opinion on the application for the use of Foscan in head and neck cancer.

Axcan Pharma announced in June 2002, long-term results from its Phase III clinical trial on PHOTOFRIN (which it licensed from QLT Inc.) for the treatment of high grade dysplasia associated with Barrett's Esophagus, a condition that results from prolonged acid reflux (heartburn). In this analysis, Axcan announced that 138 patients in the PHOTOFRIN PDT group and 70 patients in the comparative group were followed for a minimum 2-year period (median 3.5 years). Axcan announced that esophageal cancer occurred in only 13% of patients treated with

PHOTOFRIN PDT compared to 27% of patients treated with omeprazole alone, a statistically significant 52% reduction.

Cryoablation

Cryoablation is a technique being tested for liver, kidney, prostate, and breast cancer, for which it is being heralded as a method to avoid scarring. This method freezes cancer cells with liquid nitrogen. Necrosis (cell death) occurs and the cells are naturally sloughed off into the body. Cryoablation is a relatively inexpensive treatment modality. The treatment of prostate cancer, can result in impotence. Tumor accessibility may be a limitation and this modality damages healthy tissue. This may be a competitive treatment modality for certain indications.

Percutaneous Ethanol Injection (PEI)

Uses the injection of alcohol into the center of the tumor to cause cells to dry out and cellular proteins to disintegrate, ultimately leading to tumor cell death. PEI has been successful in treating some patients with primary liver cancer, but is generally considered ineffective on large tumors as well as metastatic tumors. Patients are required to receive multiple treatments, making this option unattractive for many patients. Complications include pain and alcohol introduction to bile ducts and major blood vessels.

Investigational Treatments

Patients are often considered for clinical trials owing to the high rate of recurrence or relapse of a cancer. Clinical trials typically evaluate the potential role of radiation modifiers or combination chemotherapy combined with surgery and/or radiation therapy. There are a myriad of new combinations, and a number of innovative new treatment approaches being developed and tested. Key approaches are highlighted below.

Biological Therapy or Immunotherapy

Encompasses a myriad of approaches focused on invoking an immune response against the cancer, including vaccine-based treatments and treatments using monoclonal antibodies.

One of the leading type of immunotherapies perceived as being a medical breakthrough are epidermal growth factor or EGF inhibitors. These drugs are thought to interfere with EGF receptors found on the surface of many cancer cells. When this receptor is triggered, it instructs the cell to grow and divide into two new cells. EGF inhibitors were thought to not only prevent or slow the division of cancer cells, but also enhance the killing power of chemotherapeutics.

One candidate, Iressa, is being tested in lung cancer, but may eventually be applicable to head and neck and other solid tumor cancers targeted by Genetronics. In August 2002, AstraZeneca reported that two Phase III clinical trials involving 2,000 patients showed that Iressa, taken in pill form, did not provide improvement in survival when added to chemotherapy as a first-line therapy. However, in September 2002, an FDA advisory committee voted that Phase II data demonstrated efficacy of Iressa as a third-line therapy, appearing to ensure accelerated approval of the drug. Imclone Systems, OSI Pharmaceuticals, Genentech, and Abgenix are also developing drugs that interfere with the epidermal growth factor protein.

GENE THERAPY

BACKGROUND

Gene therapy involves the introduction of new genetic information into cells for therapeutic purposes. In gene therapy, cells of the body are transfected with a specific functioning gene to compensate for a genetic defect that results in a deficiency of a specific protein factor. In this context, one goal of gene therapy is to convert target cells or tissues into “protein factories” for the production and secretion of a normal protein for local or systemic

treatment. Many genetic illnesses, including those currently treated by regular injection of a missing protein, can potentially be "cured" by supplying the functional gene to a sufficient number of cells under conditions which allow these cells to produce a therapeutically effective dose of the protein.

Currently, single-gene recessive genetic disorders are the most accessible targets for correction by gene therapy, but ultimately researchers believe that polygenic and acquired diseases will be treated by using genes as pharmaceutical agents. In principle, any aspect of metabolism can be manipulated by modifying gene function, and it is this application of gene therapy that has enormous potential, extending far beyond the treatment of rare genetic diseases. For example, the ability to influence cellular metabolism by introducing specific genes has led to extensive investigation into the use of gene therapy for cancer treatment. By adding a tumor suppressor gene to certain types of cancers, the uncontrolled growth of those cells potentially could be brought under normal regulation. Likewise, transfecting tumor cells with genes capable of inducing programmed cell death is designed to result in tumor death.

The methods of introducing genes have two specific approaches. Gene therapy can be performed either *ex vivo* or *in vivo* . *Ex vivo* gene therapy is the transfection of cells outside the body. Typically, a small amount of tissue is removed from the patient and the cells within that tissue are put into culture. After they have grown to a sufficient mass, new genetic information is introduced into the cells for therapeutic purposes. The genetically modified cells, typically blood, bone marrow or others, are then returned to the patient, usually by blood transfusion or direct engraftment. *In vivo* gene therapy is the introduction of genetic information directly into cells within the patient's body. Theoretically, any tissue or cell type in the body can be used, and the choice is dependent upon the specific goals of treatment and indications being treated. For internal tissue targets, a gene may be transfused through the blood stream to the organ or site of action, or it may be injected at the desired site, which may then be electroporated to allow the gene to pass through the cell membrane.

Genes can also be applied topically or by injection to skin and then transferred into the cells of the skin by EPT. We are investigating skin gene delivery by EPT. The skin is also an attractive target for DNA vaccination. "Vaccinating" skin with DNA that encodes a specific antigen present in infectious agents or in tumor cells can produce beneficial immunological responses.

To make gene therapy a reality, many obstacles must be overcome, including the safe, efficient delivery of the DNA construct into cells. The instrumentation we use for high-efficiency *in vivo* gene transfer is derived from the instrumentation we developed for intratumoral and transdermal drug delivery. We believe EPT may become the method of choice for DNA delivery into cells in many applications of gene therapy.

OVERVIEW

Intracellular molecular delivery problems have been a key barrier to successful gene therapy. Modified viruses used to carry beneficial DNA have produced unpredictable outcomes, including deaths. The FDA recently halted certain gene therapy trials. Other approaches also possess weaknesses. In advanced pre-clinical trials, Genetronics' solution safely enabled high levels of DNA uptake and gene expression. We have adopted the strategy of co-developing or licensing our gene delivery technology for specific genes or specific medical indications. In most cases, our proprietary instruments and expertise to optimize the delivery of genes for particular applications, and a partner company provides its proprietary gene or gene regulation technology. Our collaboration with partners allows pre-clinical research and clinical trials to be undertaken which may lead to the introduction of a new treatment and/or products in the marketplace. Our goal is to enter into at least two agreements with respect to the licensing of our EPT technology for use in the delivery of specific genes on or before December 31, 2003. See " - Business Objectives and Milestones".

PARTNERSHIPS AND COLLABORATIONS

In December 2002, we entered a new Cooperative Research and Development Agreement (CRADA) with the Naval Medical Center, San Diego (NMCSD). This new agreement will assess the viability of using EPT for non-viral *in vivo* gene delivery for wound healing and repair applications. On January 31, 2001, we entered into two CRADAs with the San Diego Naval Medical Center to evaluate the effectiveness of EPT with regard to *in vivo* gene delivery. On March 15, 2001 and May 4, 2001, we entered into two further CRADAs with the San Diego Naval

Medical Center to evaluate the use of EPT with regard to *in vivo* gene delivery. On October 18, 2000, we entered into a CRADA with the Maryland Naval Medical Research Center, to evaluate the effectiveness of EPT in the delivery of an improved DNA vaccine in the treatment of malaria.

On December 3, 2002, we announced the extension of our collaboration with Chiron, to continue to explore the delivery of its proprietary DNA vaccine for HIV using EPT, with the potential for possible clinical development. Chiron is also working with EPT on another DNA vaccine candidate for an undisclosed target. We previously had entered into two evaluation agreements with Chiron to evaluate the delivery of one or more of Chiron's DNA vaccines for the treatment of infectious diseases using our EPT. In accordance with these agreements, we have granted an option to Chiron, during the terms of the agreements and for three months thereafter, to license our EPT technology for use in the field of certain DNA vaccines. The Second Agreement expires on November 11, 2003, unless extended by the parties.

In November 2001, we entered into a non-exclusive license and supply agreement with Valentis to use our MedPulser® System for the development of its Genemedicine™ products. When combined with Valentis' GeneSwitch™ gene regulation system, EPT allows researchers to control the level and duration of gene expression in cells for up to several months. Valentis is currently developing the use of its GeneSwitch™ gene regulation system with our MedPulser® System for the delivery and regulation of up to four genes, including the EPO gene for the stimulation of red blood cell production in the treatment of anemia. On April 26, 2001, we entered into a Material Transfer and Evaluation Agreement with Boehringer Ingleheim Pharma KG to evaluate the effectiveness of EPT in the delivery of genes for the treatment of vascular disease.

The research carried out under the above agreements may result in our entering into license agreements with the other parties and should provide us with additional data that will assist us in assessing the efficacy of using our MedPulser® System for gene delivery and delivery of DNA vaccines and should further assist us in our other licensing and commercialization efforts.

In addition to the above collaboration and licensing arrangements, our goal is to eventually develop our own gene therapeutic. Currently we are performing an extensive assessment of candidate genes with respect to their availability, their probable effectiveness with respect to a particular disease, our competitive advantage regarding the delivery of the gene, and the size of the market we might serve. Once we have completed our review, we have to negotiate a license for the gene if it is not in the public domain and plan to initiate pre-clinical studies with respect to its safety and efficacy when using EPT to deliver the gene into the cells of animals. If our pre-clinical data is positive, we intend to proceed to file an IND with the FDA with respect to the use of EPT to deliver the gene in humans in the treatment of the chosen disease.

MARKET

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. Hemophilia A and B are presently treated with recombinant proteins with a combined market approaching $2 billion in the United States. For sickle cell anemia, one of the most prevalent genetic diseases, there is presently no effective and sustainable treatment available; however, approximately 50,000 people in the United States suffer from this genetic defect. *(Sources: The Sickle Cell Information Centre)* . The number of patients outside the United States is many times higher. EPO deficiency affects cancer patients undergoing chemotherapy, patients with chronic kidney failure, and others as well. Presently, the market for recombinant EPO protein is approximately $4 billion worldwide.

In addition to the many diseases caused by single gene defects, the two major polygenic disease groups, vascular disease and cancer, are prime targets for gene therapy. For the market in cancer, see "Business— Drug and Gene Delivery Division — Market — Oncology".

RESEARCH AND DEVELOPMENT

The following table summarizes the ongoing programs in the area of gene therapy, the primary indications for each product and the current status of development. “Pre-clinical data” means the program is at the stage where results from animal studies have been obtained. “Clinical Trials” means that human data is available.

Programs	Development Status	Partnership or Collaboration
In vivo Gene Transfer to Muscle — hormones, cytokines, DNA vaccines	Pre-clinical data	Valentis; Chiron; U.S. Navy
In vivo Gene Transfer to Skin-DNA vaccines, hormones, regulatory proteins	Pre-clinical data	U.S. Navy; University of Pennsylvania,
In vivo Gene Transfer to *Blood* Vessels — marker genes	Pre-clinical data	Boehringer Ingleheim Pharma KG, Germany. (Currently being renegotiated)

We intend to proceed with the joint projects that we are currently working on with our partners as set out above. We also intend to expand ongoing collaborations and to forge new alliances and research collaborations with the goal of having these relationships mature into licensing agreements.

In addition, we plan to complete pre-clinical research for other gene therapy projects that we intend to carry out ourselves. We intend to continue with these projects through clinical trials and development into products, provided that milestones of safety, efficacy, and commercial viability are successfully reached along the path to development. One of these projects targets the treatment of sarcomas, a form of cancer that can involve muscle, connective and/or bone tissue. Other projects presently under evaluation include the treatment of hemophilia, a therapeutic vaccine for a major infectious disease, prevention of organ transplant rejection, and immunotherapy of cancer. From this group, the one or two most promising projects will be selected with the intention to pursue these projects through the pre-clinical and clinical phases toward regulatory clearance. Other research and development activities will target improvements in DNA delivery, both *in vivo* and *ex vivo* , and the strengthening of our intellectual property position in the fields of DNA delivery, gene therapy, and DNA vaccines.

COMPETITION

The main competitive technologies to our technology in the area of gene therapy are the following:

- viral DNA delivery;
- lipid DNA delivery;
- biolistic delivery of DNA; and
- the injection of “naked” DNA.

To our knowledge, we are presently the only company that has the capability to manufacture electroporation equipment under Good Manufacturing Practices (GMP). Our competitors include several companies that either have rights to intellectual property related to electroporation devices, to electroporation methods, or to applications of electroporation. These competitors include Aventis Pharmaceuticals; Ichor Medical Systems Inc.; Inovio AS; Cytopulse Science Inc.; Rhone Poulenc Rohrer and others.

MEDPULSER® SYSTEM

OVERVIEW

The MedPulser® System is designed for the clinical application of EPT. In the field of oncology, the MedPulser® System is used to treat tumors by the local application of a controlled electric field to targeted tumor tissues that have been previously injected with a chemotherapeutic agent, typically bleomycin. The controlled short duration electric field pulses temporarily increase the cellular membrane permeability of the tumor, thus allowing the chemotherapeutic agent to more easily enter the tumor cells and kill them.

The system has two components: (1) a medical instrument (power generator) that creates the electric field; and (2) a single patient use, sterile, disposable electrode applicator. The electrodes may be needles, plates, or other configurations, depending on the geometry of the tumor and its location.

The medical instrument 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 chosen applicator is then connected to the MedPulser® System instrument, and it is the connection of applicator to instrument that automatically configures the therapy parameters for that particular applicator size and shape. Currently, several different electrode applicator configurations are available. The applicators vary in needle length, needle gauge, electrode needle spacing, tip angle and handle configuration so as to allow the physician to access a greater range of tumors.

New models of electrode applicators will be considered in the future to address customer needs. The system is designed such that the installed base of the MedPulser® System instruments allows for a wide variety of new electrode applicator configurations. Also, the system incorporates other features to minimize the possibility of applicator reuse as well as prevent the use of competitive applicators with the MedPulser® System instrument. The commercial version of the MedPulser® System has been certified by an independent test laboratory as meeting strict international product standards.

In the United States, EPT utilizing the MedPulser® System and bleomycin, are currently regulated as a combination drug-device system. As a result, we will be required to obtain both drug labeling and device approvals from the FDA. For drug labeling approvals, we must file an IND, successfully complete Phase I, II and III clinical trials, and subsequently submit a United States New Drug Application (NDA). We will also be required to submit a device Pre-Market Approval or 510(k) for FDA approval as a device. We are unable, due to the complexities of completing Phases I, II and III clinical trials, to estimate the length of time or cost involved in obtaining approvals from the FDA. The costs associated with such an approval cannot be reasonably determined at this time due to the vagaries of the approval process.

In most of the rest of the world, we anticipate that the MedPulser® System will be regulated as a device. In Europe, the MedPulser® System comes under Medical Device Directive 93/42/EEC (“MDD”) which means that prior to marketing the MedPulser® System, we are required to obtain a CE Mark certification of conformity to the quality system, production and clinical investigation essential requirements of the directive. We have obtained CE Mark certification for the MedPulser® System, which allows us to market it in Europe. The most expeditious manner for receiving regulatory approval for use of the MedPulser® System with bleomycin is a filing with the European Medicines Evaluation Agency which could approve the use of the drug/device combination throughout the Europe Union. This process could take up to a year for decision. The costs associated with such an approval cannot be reasonably determined at this time due to the vagaries of the approval process.

MEDICAL DEVICE MANUFACTURING

Our Drug and Gene Delivery Division must comply with a variety of regulations to manufacture our products for sale around the world. In Europe, we must comply with MDD. Our Drug and Gene Delivery Division has demonstrated its quality system is in place by securing ISO 9001 approval. It has also demonstrated compliance with international medical device standards with EN 46001 and ISO 13485 recognition. We received all of these

certifications in January 1999. In March 1999, we obtained the CE Mark qualifying the MedPulser® System for sale in Europe. To sell in the United States, we will also need to be in compliance with FDA current GMP.

We employ modern manufacturing practices, which include outsourcing of significant custom assemblies used in the manufacture of the MedPulser® System instrument. The instrument final assembly, testing and quality control functions are performed in a physically distinct area of our facilities in which the appropriate controls are employed. We outsource the manufacture of the disposable electrode applicators to a GMP/ISO9002 compliant contract manufacturer.

BTX INSTRUMENT DIVISION

Genetronics was originally founded as Biotechnologies and Experimental Research, Inc. (BTX) in San Diego, California, in 1983. We established a reputation and leadership position in the field of electroporation by developing a product line of instruments for scientific research. BTX sold its first product in 1985. In the early 1990s, we extended our focus to include human therapeutics.

In January 2003, we closed the sale of the non-cash assets of the BTX division to Harvard Bioscience, Inc. The terms of the sale were $3.7 million in cash, subject to possible adjustments, and a royalty on net sales of BTX products above certain sales targets. This transaction allows our company to focus on the human application of its electroporation-based therapies.

REVENUE AND INTEREST INCOME

The following table provides the amount of interest income, and revenue obtained from grant funding and research and development agreements 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 accounting principles generally accepted in the United States which conform to accounting principles generally accepted in Canada, except as described in Note 19 to the consolidated financial statements.

Period Ended:	December 31, 2002 12 months	December 31, 2001 9 months(1)	March 31, 2001 12 months
REVENUES UNDER COLLABORATIVE RESEARCH AND DEVELOPMENT ARRANGEMENTS			
Germany	$ 173,638	$ 97,029	$ 411,616
United States	$ 10,000	$ 12,640	$ 48,095
INTEREST INCOME			
United States	$ 32,316	$ 98,865	$ 431,729
Canada	—	—	$ 11,900
GRANT FUNDING			
United States	—	—	$ 101,086
LICENSE AND DEVELOPMENT AGREEMENTS(2)			
Ethicon-Endo Surgery, Inc.	—	—	$ 3,730,392
Other	$ 5,883	$ 981	—

(1) On June 15, 2001, we changed our fiscal year end from March 31 to December 31.

(2) During the quarter ended December 31, 2001, we changed our accounting policy for upfront non-refundable license payments received in connection with collaborative license agreements in accordance with Staff Accounting Bulletin No. 101 (“SAB 101”) issued by the U.S. Securities and Exchange Commission. Accordingly, we recorded a cumulative adjustment of $3.6 million during the year ended March 31, 2001.

We, like many biomedical companies, devote a substantial portion of our annual budget to research and development. For the year ended March 31, 2001, research and development expenses totaled $5.1 million and for the nine months ended December 31, 2001, the expenses totaled $2.1 million; and for the twelve months ended December 31, 2002, the expenses totaled $2.5 million. These amounts far exceed revenues from research arrangements and contribute substantially to our losses.

INTELLECTUAL PROPERTY

As of March 14, 2003, the United States Patent Office has issued to us 45 patents with 3 additional patents being allowed awaiting issuance. We have also been granted patents in individual countries and European Patents with validation in numerous countries covered the EP patents such that we now have been granted and validated 75 patents in those foreign jurisdictions. Additionally, there are 20 foreign patents that have been allowed and awaiting grant and/or validation. Regarding pending applications, we have 21 pending patent applications in the United States, and an additional 84 pending applications in foreign jurisdictions.

We have registered on the Principal Register of the United States Patent and Trademark Office the following trademarks: BTX (Mark), BTX (Logo), ELECTRONIC GENETICS, MANIPULATOR, OPTIMIZOR, HUMAN IN SQUARE (Design), ENHANCER, and MEDPULSER. The following United States trademark applications are pending: COSMETRONICS and GENETRODES. We have registered the BTX and MEDPULSER trademarks in Canada, and have applied to trademark GENETRONICS in Canada. We have a European Community Trade Mark registration for GENETRONICS, BTX and for MEDPULSER. We have registered the MEDPULSER and BTX marks in Japan. We have registered the BTX mark in South Korea and have registered the GENETRONICS mark in the United Kingdom. We are not aware of any claims of infringement or other challenges to our right to use our marks.

EMPLOYEES

As of March 14, 2003 we employed 26 people on a full-time basis. Of the total, 8 were in product research, 4 in engineering, and 14 in corporate development, finance and administration. Our success is dependent on our ability to attract and retain qualified employees. Competition for employees is intense in the biomedical industry. None of our employees is subject to collective bargaining agreements. In February 2003, as a result of the sale of our BTX division to Harvard Biosciences, Inc., we reduced our workforce by 20 employees due to the elimination of positions. The estimated cost to us for the reduction in force was approximately $180,000.

RISK FACTORS

WE HAVE OPERATED AT A LOSS AND WE EXPECT TO CONTINUE TO ACCUMULATE A DEFICIT; OUR AUDITORS HAVE INCLUDED IN THEIR REPORT AN EXPLANATORY PARAGRAPH DESCRIBING CONDITIONS THAT RAISE SUBSTANTIAL DOUBT ABOUT OUR ABILITY TO CONTINUE AS A “GOING CONCERN”; IF WE DO NOT OBTAIN ADEQUATE FUNDING FROM A FINANCIAL OR LICENSING DEAL.

As of December 31, 2002, we had a deficit of $53,326,547. We have operated at a loss since 1994, and we expect this to continue for some time. The amount of our accumulated deficit will continue to grow, as it will be expensive to continue our clinical, research, and development efforts. If these activities are successful, and if we receive approval from the FDA to market human-use equipment, then even more funding will be required to market and sell the equipment.

Most of the cash we have received during the fiscal year which began on January 1, 2002 came from the sale and distribution of special warrants in May 2002 and sales of BTX research-use equipment. Other funds came from collaborative research arrangements and interest income on our investments. In January 2003, we closed the sale of the non-cash assets of the BTX Division for $3.7 million in cash subject to certain adjustments. We do not expect to receive enough funding from these sources to completely pay for future activities. There is substantial doubt about our ability to continue as a going concern due to our historical negative cash flow and because we do

not have access to sufficient committed capital to meet our projected operating needs for at least the next twelve months. Our auditor has included in their report on the financial statements for the twelve months ended December 31, 2002, an explanatory paragraph describing conditions that raise substantial doubt about our ability to continue as a going concern.

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

As discussed, we have operated at a loss, and expect that to continue for some time in the future. Our plans for continuing clinical trials, conducting research, furthering development and, eventually, marketing our human-use equipment will involve substantial costs. The extent of these costs will depend on many factors, including some of the following:

- The progress and breadth of preclinical testing and the size of our drug delivery programs, all of which directly influence cost;
- The 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;
- The costs involved in patenting our technologies and defending them;
- Changes in our existing research and development relationships and our ability to enter into new agreements;
- The cost of manufacturing 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. We cannot promise that we will enter into any such contracts or receive such grants, or, if we do, that our partners and the grants will provide enough funding to meet our needs.

In the past, we have raised funds by 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 rapidly, 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.

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 drug 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 a lot 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 probably would be reflected in our stock price.

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

There are many products and programs that 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 assure you that our business model, as it currently exists or as it may evolve, will enable us to become profitable or to sustain operations.

IF WE DO NOT SUCCESSFULLY COMMERCIALIZE PRODUCTS, THEN OUR BUSINESS WILL SUFFER.

Many of our products and technologies are in the early development stage and our success depends on the success of their technologies and products. Although we have received various regulatory approvals which apply to Europe for our equipment for use in treating solid tumors, the products related to such regulatory approval have not yet been commercialized. In addition, we have not yet received any regulatory approvals to sell our clinical 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 that we will successfully develop any products. If we fail to develop or successfully commercialize any products, then our business will suffer. 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.

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 Food and Drug Administration (FDA), or applicable foreign regulatory authorities, must determine that the equipment meets specified criteria for use in the indications for which approval is requested. The FDA will make this determination based on the results from our pre-clinical testing and clinical trials.

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 are not repeated in later stage trials, pharmaceutical and biotechnology companies have suffered significant setbacks. Not only are commercialization timelines pushed back, but some companies, particularly smaller biotechnology companies with limited cash reserves, have gone out of business after releasing news of unsuccessful clinical trial results.

If we experience unexpected, inconsistent or disappointing results in connection with a clinical or pre-clinical trial our business will suffer. If any of the following events arise during our clinical trials or data review, then we would expect this to have a serious negative effect on our company and your investment:

- 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

- The FDA and other regulatory authorities may interpret our data differently than we do, which may delay or deny approval.

Clinical trials are generally quite expensive. 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, then the testing of our human-use products could be shelved. In the event the clinical trials are 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.

The production and marketing of our human-use equipment and the ongoing research, development, preclinical testing, and clinical trial activities are subject to extensive regulation. Numerous governmental agencies in the US 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 in 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 us:

- As mentioned earlier, clinical trials may not yield sufficiently conclusive results for regulatory agencies to approve the use of our products;

- There can be delays, sometimes long, in obtaining approval for our human-use devices, and indeed, we have experienced such delays in obtaining FDA approval of our clinical protocols. Specifically, the FDA requested additional detailed information regarding our Phase II clinical studies. Between the production of this information and the FDA’s subsequent review, we estimate that this request added at least six months to the approval process;

- Currently, we are preparing our clinical protocol for Phase III Clinical Trials for patients that have failed primary therapy for head and neck cancer and are candidates for surgical resection. The primary endpoint will be tissue preservation. While we anticipate ultimate approval of this protocol (perhaps with some modifications), we cannot predict when such approval will come and we will not know for

certain until the FDA responds. We are unable, due to the complexities of completing Phases III clinical trials, to estimate the length of time involved in obtaining approval of this protocol from the FDA. Failure to receive permission to enter Phase III Clinical Trials could be devastating to our efforts to raise further funding for our work;

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

Our partners and collaborators fund a portion of our research and development expenses and assist us in the research and development of our human-use equipment. We have ten current partners and collaborators who fund roughly five percent of our research and development expenses. These collaborations and partnerships can help pay the salaries and other overhead expenses related to research. Our largest partner at this time is Valentis, Inc. In November 2001, we entered into a non-exclusive license and supply agreement with Valentis, whereby Valentis obtained rights to use our electroporation technology in the development of certain GeneMedicine products. We received an upfront cash payment of $100,000 from Valentis in the first quarter of 2002, and we may receive additional revenues from this partnership depending on various regulatory approvals and other events outside of our control. In the past, we encountered operational difficulties after the termination of a similar agreement by a former partner, Ethicon, Inc., a Johnson & Johnson company. At the time of termination, proceeds from the Ethicon relationship funded roughly one-third of our research and development expenses. 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. In order to obtain the funding necessary for these projects we pursued other licensing and development arrangements as well as private equity investments. Furthermore, the termination of this partnership damaged our reputation in the biotechnology community. While termination of, or any significant change in, any of our material collaborative relationships could adversely impact our business, the termination of the Ethicon partnership was the most significant to date. The Valentis partnership is not of the same size and scope as the Ethicon partnership and termination of the Valentis partnership would not, in and of itself, cause us to cease operations due to financial concerns. Termination of the Valentis partnership, however, would present operational difficulties as we would be required to reallocate existing and anticipated resources among various potential uses. We would likely have to defer or curtail our development activities in one or more areas because potential revenues available under the terms of the relationship would go unrealized.

Our clinical trials to date have used our equipment with the anti-cancer drug bleomycin. We do not currently intend to package bleomycin 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. In 1998, we signed a supply agreement with Abbott Laboratories under which Abbott would sell us bleomycin for inclusion in our package. If it becomes necessary or desirable to include bleomycin in our package, and this relationship with Abbott should be terminated, then 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 universities and companies 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

- Collaborative associations can damage a company's 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 fruitful. We also cannot tell you 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 too 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 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 also work 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.

For instance:

Risk of Deviations from Protocol. The hospitals or the physicians working at the hospitals may not perform the trial 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. 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.

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 are in the process of performing an ongoing review of our patent portfolio to confirm that our key technologies are adequately protected. If we determine that any of our patents require either additional disclosures or revisions to existing information, we may ask that such patents be reexamined or reissued, as applicable, by the United States patent office.

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

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

Risk 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 and our partners try to avoid infringement, there is the risk that we will use a patented technology owned by another person and/or be charged with infringement. Defending or indemnifying a third party against a charge of infringement can involve lengthy and costly legal actions, and there can be no guarantee of a successful outcome. Biotechnology companies of roughly our size and financial position have gone out of business after fighting and losing an infringement battle. If we or our partners were prevented from using or selling our human-use equipment, then our business would be seriously 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, makes these significant risks.

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 assure you that these agreements will not be breached, that we will be able to do much 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 over valuable company information, which could negatively affect our competitive position.

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 drug delivery 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 lessen. However, we feel that our patent position adequately protects our technology portfolio.

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 United States, 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 United States and would have a serious effect on revenues and our business as a whole. Outside of the United States, reimbursement and funding policies vary widely.

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

We have no experience in sales, marketing and distribution of clinical and human-use products. If we want to be direct distributors of the human-use products, then we must develop a marketing and sales force. This would involve substantial costs, training, and time. Alternatively, we may decide to rely on a company with a large distribution system and a large direct sales force to undertake the majority of these activities on our behalf. This route could result in less profit for us, but may permit us to reach market faster. In any event, we may not be able to undertake this effort on our own, or contract with another to do this at a reasonable cost. Regardless of the route we take, we may not be able to successfully commercialize any product.

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 about 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;
- 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, Europe 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, especially if we do not win 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;
- A decreasing cash-on-hand balance to fund operations, or other signs of apparent financial uncertainty; and
- Significant advances made by competitors that are perceived to limit our market position.

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 indication 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 possess liability insurance in connection with ongoing business and products, and we will purchase additional policies if such policies are determined by management to be necessary. The insurance we purchase may not provide adequate coverage in the event a claim is made, however, 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.

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

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.

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 revenues 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.

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 review 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 not up to the FDA standards in sufficient time, prior to United States launch of product, 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. There are no immediate 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.

WE DEPEND ON THE CONTINUED EMPLOYMENT OF QUALIFIED PERSONNEL.

Our success is highly dependent on the people who work for us. Significant risks to our progress could be effected if key employees in Research and Development and Engineering were to leave us. If we cannot attract and retain top talent to work in our company, then our business will suffer. Our staff may not decide to stay with our company, and we may not be able to replace departing employees or build departments with qualified individuals.

We have an employment agreement in place for Avtar Dhillon, our President and Chief Executive Officer. If Mr. Dhillon leaves us, that might pose significant risks to our continued development and progress. Our progress may also be curtailed if Dietmar Rabussay, Ph.D., our Vice President of Research and Development, were to leave us.

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. Nevertheless, 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, our finances, and could result in a slowdown, or even complete cessation of our business.

A MAJORITY OF OUR DIRECTORS ARE CANADIAN CITIZENS AND SERVICE AND ENFORCEMENT OF LEGAL PROCESS UPON THEM MAY BE DIFFICULT.

A majority of our directors are residents of Canada and most, if not all, of these persons' assets are located outside of the United States. It may be difficult for a stockholder in the United States to effect service or realize anything from a judgment against these Canadian residents as a result of any possible civil liability resulting from the violation of United States federal securities laws. We currently have five directors, four of whom are Canadian citizens.

OUR ACTUAL RESULTS COULD DIFFER MATERIALLY FROM THOSE ANTICIPATED IN OUR FORWARD-LOOKING STATEMENTS.

Any statements in this Form 10-K about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. These statements are often, but not always, made through the use of words or phrases such as "believe," "anticipate," "should," "intend," "plan," "will," "expects," "estimates," "projects," "positioned," "strategy," "outlook" and similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from the results expressed in the statements. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this Form 10-K. The following cautionary statements identify important factors that could cause our actual results to differ materially from those projected in the forward-looking statements made in this Form 10-K. Among the key factors that have a direct impact on our results of operations are:

- the risks and other factors described under the caption "—Risk Factors" in this Form 10-K;
- general economic and business conditions;
- industry trends;
- our assumptions about customer acceptance, overall market penetration and competition from providers of alternative products and services;
- our actual funding requirements; and
- availability, terms and deployment of capital.

Because the risk factors referred to above could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us, you should not place undue reliance on any such forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which will arise. In addition, we cannot assess the impact of each factor 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.

ITEM 2 . PROPERTIES

We own no real property and have no plans to acquire any real property in the future. We currently lease a facility of 20,483 square feet at our headquarters in San Diego, California. This facility provides adequate space for our current research, manufacturing, sales and administrative operations. The current lease runs through December 31, 2004.

ITEM 3 . LEGAL PROCEEDINGS

We are not a party to any material legal proceedings with respect to us, our subsidiaries, or any of our material properties.

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

At a special meeting of stockholders held on November 21 2002, a resolution was passed, by the margins indicated below, to increase the authorized number of shares of our common stock from 100,000,000 to 300,000,000 shares. The total number of votes cast for, against, and withheld or abstained with respect to the resolution was 26,493,929, 420,265 and 12,646, respectively. The number of shares not voted was 23,471,712.

Subsequent to year-end, at a special meeting of stockholders held on January 31, 2003, a resolution was passed, by the margins indicated below, to approve an Asset Purchase Agreement dated as of December 24, 2002 by and between our company and Harvard Bioscience, for the sale of substantially all of the properties and assets that are primarily used in our BTX Division. The terms of the sale were $3.7 million in cash, subject to certain adjustments, and a royalty on net sales of BTX products above certain targets for a period of four years. The total number of votes cast for, against, and withheld or abstained with respect to the resolution was 27,000,985, 71,603 and 6,246, respectively. The number of shares not voted was 23,319,718.

PART II

ITEM 5 . MARKET FOR COMPANY'S COMMON EQUITY AND RELATED SHAREHOLDER MATTERS

Market Information

The principal trading market for the common shares of Genetronics Biomedical Corporation during 2002 was the American Stock Exchange (AMEX). Trading began on the AMEX on December 8, 1998. On January 17, 2003, we voluntarily de-listed from the Toronto Stock Exchange (TSE) where our common stock had been listed since September 2, 1997. The decision was made to decrease the time required and costs of dual regulatory filings, to concentrate all of the volume on one exchange and to focus on building a higher profile with our expanding domestic investor base.

Our common shares have also traded on the former Vancouver Stock Exchange (VSE); however we voluntarily de-listed from that exchange on March 6, 1998. The table below sets forth the quarterly high and low sales prices of our common shares in the two most recent fiscal years.

	Toronto Stock Exchange CDN$		American Stock Exchange US$	
Year ended December 31, 2002	**HIGH**	**LOW**	**HIGH**	**LOW**
First quarter	1.35	0.74	0.85	0.45
Second quarter	1.05	0.64	0.64	0.40
Third quarter	0.70	0.21	0.48	0.13
Fourth quarter	0.55	0.21	0.39	0.14

Nine months ended December 31, 2001	HIGH	LOW	HIGH	LOW
First quarter	2.60	1.10	1.70	0.73
Second quarter	1.70	0.60	1.30	0.40
Third quarter	1.33	0.59	0.90	0.38

On March 14, 2003 the closing price of our common shares was US $0.32 on the AMEX. As of March 14, 2003, there were approximately 395 shareholders of record.

Dividends

We have never paid any cash dividends on our common stock and do not expect to pay any cash dividends in the foreseeable future.

RECENT SALES OF UNREGISTERED SECURITIES

On June 6, 2002, we closed a private placement of 10,225,891 special warrants. 7,985,574 special warrants were issued at a subscription price of $0.42 per special warrant and 2,240,317 special warrants were issued at a subscription price of $0.47 per special warrant, for gross proceeds of $4,406,890. Each $0.42 special warrant is exercisable, without additional payment, into one share of common stock and a warrant for the purchase of one-third of one share of common stock. Each full common stock purchase warrant is exercisable for 12 months to purchase a share of common stock at $0.70. A total of 2,661,851 such warrants are issuable and shall expire on June 6, 2003. Each $0.47 special warrant is exercisable, without additional payment , into one share of common stock and a warrant for the purchase of forty percent of one share of common stock Each full common stock purchase warrant is exercisable for 12 months to purchase one share of common stock at $0.65. A total of 896,125 such warrants are issuable and shall expire on June 6, 2003. The gross proceeds of this financing were reduced by issuance costs including the agent's commission of 6.0% of the gross proceeds of $264,413 and other issue costs of $306,709 incurred as of December 31, 2002. In October 2002, these special warrants were converted into 10,225,891 shares of common stock and 3,557,976 common stock purchaser warrants.

In connection with the issuance of the special warrants described in the proceeding paragraph, we granted Series "A" special warrants to the placement agent to acquire 665,000 shares of common stock for $0.47 per share. These warrants expire on June 6, 2005.

Pursuant to a consulting agreement dated June 12, 2001, we agreed to issue shares with a value of $55,000 based on the fair market value of our common stock on the completion date of the project in October 2001. The 100,000 common shares were issued on January 9, 2002.

On November 30, 2001, we closed a private placement of 5,212,494 special warrants at a price of $0.45 per Special Warrant for gross proceeds of $2,345,622. Each Special Warrant entitles the holder to acquire one common share and one-half of a non-transferable warrant, without payment of further consideration, on the exercise or deemed exercise of the Special Warrant. Each full Warrant entitles the holder to purchase one common share at a price of $0.75 through May 30, 2003. The gross proceeds of this financing were reduced by issuance costs including the agent's commission of 7.5% of the gross proceeds of $175,922 and other issue costs of $420,763 incurred as of December 31, 2001. The agent was also granted Agent's Series A Special Warrants entitling the holder to acquire 100,000 common shares, without payment of further consideration, exercisable on or before November 30, 2002 and Agent's Series B Special Warrants entitling the agent to acquire 521,249 Agent's Share Purchase Warrants. Each Agent's Share Purchase Warrant entitles the holder to acquire one common share at a price of $0.45 per Agent's Share Purchase Warrant, exercisable through May 30, 2003.

On January 25, 2002, we filed a preliminary prospectus in Canada qualifying the common shares and share purchase warrants. Of the total gross proceeds, 20% ($469,124) was withheld from us and placed in an escrow account by the placement agent. We obtained approval for our Canadian prospectus and U.S. registration statement

prior to March 29, 2002, and received the funds held in escrow in April. As of December 31, 2002, we recorded proceeds of $1,335,104 for the proceeds from the sale of the 5,212,494 Special Warrants, net of issuance costs of $1,010,518 incurred as of December 31, 2002.

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 accounting principles generally accepted in the United States. The data set forth below should be read in conjunction with our Consolidated Financial Statements and the Notes thereto and "— Management's Discussion and Analysis of Financial Condition and Results of Operations" set forth below. Effective June 15, 2001, the Board of Directors approved the change of our fiscal year-end from March 31 to December 31.

Fiscal Periods Ended	Twelve months ended December 31, 2002	Nine months ended December 31, 2001	Twelve months ended March 31, 2001	Twelve months ended March 31, 2000	Twelve months ended March 31, 1999
License fee and milestone payments	$ 5,883	$ 981	$ 3,730,392	$ 416,667	$ 4,500,000
Revenues under collaborative research and development arrangements and government grants	183,638	109,669	560,797	526,236	387,183
Interest income	32,316	98,865	443,629	556,193	300,911
Loss from continuing operations	(5,908,044)	(5,851,744)	(4,935,600)	(9,507,609)	(6,067,284)
Discontinued operations	(56,783)	(508,046)	(283,696)	(1,196,221)	(1,083,253)
Loss before cumulative effect of change in accounting principle	(5,964,827)	(6,359,790)	(5,219,296)	(10,703,830)	(7,150,537)
Cumulative effect on prior years of change in accounting principle(1)	—	—	(3,647,059)	—	—
Net loss	(5,964,827)	(6,359,790)	(8,866,355)	(10,703,830)	(7,150,537)
Amounts per common share - basic and diluted:					
Loss from continuing operations	(0.15)	(0.17)	(0.18)	(0.43)	(0.30)
Loss from discontinued operations	—	(0.02)	(0.01)	(0.05)	(0.05)
Loss from cumulative effect of change in accounting principle	—	—	(0.13)	—	—
Net loss	(0.15)	(0.19)	(0.32)	(0.48)	(0.35)
Pro forma loss assuming the change in accounting principle is applied retroactively	(5,964,827)	(6,359,790)	(5,219,296)	(10,468,536)	(11,032,891)
Pro forma loss per common share – basic and diluted assuming the change in accounting principle is applied retroactively	(0.15)	(0.19)	(0.19)	(0.47)	(0.54)
Total assets	5,419,225	6,633,714	11,486,266	14,012,304	9,807,644
Long term liabilities, including current portion	20,642	48,117	117,463	118,384	164,276

(1) During the quarter ended December 31, 2001, we changed our method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Effective April 1, 2000, we recorded the cumulative effect of the change in accounting principle.

The following 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. Summarized unaudited quarterly data for the twelve months ended December 31, 2002 and the nine months ended December 31, 2001 are as follows:

	Three month period ended Dec. 31, 2002	Three month period ended Sept. 30, 2002	Three month period ended June 30, 2002	Three month period ended March 31, 2002
OPERATING DATA				
Revenue				
License fee and milestone payments	$ 1,471	$ 1,471	$ 1,471	$ 1,470
Revenues under collaborative research and development arrangements	74,722	66,416	39,500	3,000
Total	76,193	67,887	40,971	4,470
Loss from continuing operations	(1,439,307)	(1,461,610)	(1,513,690)	(1,493,437)
Discontinued operations	(135,492)	70,705	(23,617)	31,621
Net loss	$ (1,574,799)	$ (1,390,905)	$ (1,537,307)	$ (1,461,816)
Amounts per common share - basic and diluted				
Loss from continued operations	$ (0.03)	$ (0.03)	$ (0.04)	$ (0.04)
Loss from discontinued operations	—	—	—	—
Net loss	$ (0.03)	$ (0.03)	$ (0.04)	$ (0.04)
Weighted average number of common shares	48,842,438	40,172,661	39,683,651	34,644,798

	Three month period ended Dec. 31, 2001	Three month period ended Sept. 30, 2001	Three month period ended June 30, 2001
OPERATING DATA			
Revenue			
License fee and milestone payments	$ 981	$ —	$ —
Revenues under collaborative research and development arrangements	3,000	53,490	53,179
Total	3,981	53,490	53,179
Loss from continuing operations	(1,888,060)	(1,773,122)	(2,190,562)
Discontinued operations	(77,363)	61,011	(491,694)
Net loss	$ (1,965,423)	$ (1,712,111)	$ (2,682,256)
Amounts per common share – basic and diluted			
Loss from continuing operations	$ (0.06)	$ (0.05)	$ (0.07)
Loss from discontinuing operations	—	—	(0.01)
Net loss	$ (0.06)	$ (0.05)	$ (0.08)
Weighted average number of common shares	33,760,120	33,759,968	33,758,111

(1) During the fourth quarter ended December 31, 2001, we changed our method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Effective April 1, 2000, we recorded the cumulative effect of the accounting change.

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

The following discussion should be read in conjunction with the consolidated financial statements and the Notes contained elsewhere in this Form 10-K. The following discussion and analysis explains trends in the our financial condition and results of operations for the twelve months ended December 31, 2002 and December 31, 2001, and the nine months ended December 31, 2001 and December 31, 2000.

OVERVIEW

We are a San Diego-based biomedical company developing drug and gene delivery systems that use Electroporation Therapy (EPT) to deliver drugs and genes into cells. We are developing and commercializing novel medical therapies based on electroporation, addressing critical unmet treatment needs.

Our revenues primarily reflected amounts received under collaborative research and development arrangements, license fees and research grants. From October 1998 to August 2000 we received up-front licensing fees and milestone payments from Ethicon, Inc. and Ethicon Endo-Surgery, Inc. relating to a licensing and development agreement for electroporation and electrofusion. On July 26, 2000, we received notice from Ethicon-Endo Surgery, Inc. that it had elected to exercise its discretionary right to terminate, without cause, the licensing and development agreement and the supply agreement entered into with us. All rights previously granted to Ethicon Endo-Surgery, Inc. were returned to us on January 22, 2001. On January 31, 2003 we completed the sale of substantially all of the properties and assets that are primarily used in our BTX Division. In the past, our revenues included product sales to the research market through the BTX Instrument Division. The terms of the sale are $3.7 million in cash subject to certain adjustments, and a royalty of net sales of BTX products above certain targets for the period of four years. The BTX Instrument Division developed, manufactured, and marketed electroporation instrumentation and accessories used by scientists and researchers to perform genetic engineering techniques, such as cell fusion, gene transfer, cell membrane research and genetic mapping in research laboratories worldwide.

We are seeking a new licensing partner for the use of electroporation for the delivery of drugs in the treatment of cancer. We will not receive any milestone or licensing payments for development or sale of our products until a new strategic alliance is in place with a new partner and we achieve the milestones specified in the new agreement, or product sales commence under the new agreement. 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 a new agreement.

In November 2001, we entered into a non-exclusive license and supply agreement with Valentis, Inc. in the gene therapy field to use its MedPulser® System in the development of its Genemedicine™ products. We have received an upfront payment of $100,000 in the first quarter of 2002 and will receive additional payments upon the achievements of specified milestones in the form of cash and stock of Valentis. While this agreement expires in 2018, the agreement may be terminated by Valentis upon thirty days' notice, with or without cause.

Until we achieve the commercialization of clinical products, we expect revenues to continue to be attributable to grants, license fees, collaborative research arrangements, and interest income.

Due to the expenses incurred in the development of the drug and gene delivery systems, we have been unprofitable in the last eight years. As of December 31, 2002, we have incurred a cumulative deficit of $53,326,547. We expect to continue to incur substantial operating losses in the future due to continued spending on research and development programs, the funding of preclinical studies, clinical trials and regulatory activities and the costs of manufacturing and administrative activities.

On June 15, 2001 we completed a change in our jurisdiction of incorporation from British Columbia, Canada into the state of Delaware. The change was accomplished through a reincorporation of Genetronics Biomedical Ltd., a British Columbia corporation, into Genetronics Biomedical Corporation, a Delaware corporation. All periods presented have been restated to financial statements prepared in accordance with accounting principles generally accepted in the United Sates.

RESULTS OF OPERATIONS

We do not believe that inflation has had a material impact on our result of operations for the twelve months ended December 31, 2002 and December 31, 2001 and the years ended March 31, 2001 and March 31, 2000.

TWELVE MONTHS ENDED DECEMBER 31, 2002 COMPARED TO TWELVE MONTHS ENDED DECEMBER 31, 2001

Due to the fiscal year end change from March 31 to December 31, beginning with the nine month period ended December 31, 2001, the twelve months ended December 31, 2001 has been provided in this discussion of 2002 to allow a more meaningful comparison and discussion of trends in revenues and expenses. The consolidated financial data for the twelve months ended December 31, 2002 and December 31, 2001 are presented in the following table and the results of these two periods are used in the discussion thereafter.

Fiscal periods ended	Twelve months ended December 31, 2002	Twelve months ended December 31, 2001 (unaudited)	
License fee and milestone payments	$ 5,883	$ 3,471,571	
Revenues under collaborative research and development arrangements	183,638	254,932	
Government grants	—	4,032	
Total revenues	189,521	3,730,535	
Research and development	2,466,129	3,709,370	(1)
General and administrative	3,658,307	5,114,651	(1)
Interest income	(32,316)	(202,446)	
Interest expense	5,445	16,354	
Foreign exchange loss	—	66,453	
Total expenses	6,097,565	8,704,382	
Net loss from continuing operations	(5,908,044)	(4,973,847)	
Discontinued operations	(56,783)	(441,813)	
Net loss	$ (5,964,827)	$ (5,415,660)	
Amount per common share – basic and diluted:			
Loss from continuing operations	$ (0.15)	$ (0.15)	
Loss from discontinuing operations	—	(0.01)	
Net loss	$ (0.15)	$ (0.16)	

(1) Certain reclassifications have been made to conform to the December 31, 2002 presentation.

REVENUES

Due to the recognition of the license fee related to the Licensing and Development Agreement with Ethicon Endo-Surgery, Inc. as revenue in 2001, license fee and milestone payments for the twelve months ended December 31, 2002 declined over the same period of the previous year. We are currently seeking a new licensing partner for the use of electroporation for the delivery of drugs in the treatment of cancer.

In November 2001, we entered into a non-exclusive license and supply agreement with Valentis, Inc. in the gene therapy field to use its MedPulser® System in the development of its Genemedicine™ products. We have received an upfront payment of $100,000 in the first quarter of 2002 and will receive additional payments upon the achievements of specified milestones in the form of cash and stock of Valentis. The agreement expires in 2018.

There were no revenues from grant funding for the twelve months ended December 31, 2002 compared to $4,032 for the period ended December 31, 2001. All active grants have expired. We continue to pursue additional Small Business Innovation Research Grants; however, no assurance can be given that any such awards will be obtained.

During the twelve months ended December 31, 2002, we recorded revenues under collaborative research and development arrangements in the amount of $183,638, compared to $254,932 for the twelve months ended December 31, 2001. For the twelve months ended December 2002, revenues primarily reflected amounts received from several small research agreements. Revenues decreased over the previous year's period due to the fact that a

major collaborative research agreement in the gene therapy area entered into in late 1999 was completed in the summer of 2001.

Interest income decreased from $202,446 for the twelve months ended December 31, 2001 to $32,316 for the twelve months ended December 31, 2002. The decrease resulted primarily from the diminishing availability of investment funds due to the continuing operating losses.

RESEARCH AND DEVELOPMENT

Research and development, which includes clinical trial costs, decreased by $1,243,241, or 34%, from $3,709,370 for the twelve months ended December 31, 2001 to $2,466,129 for the twelve months ended December 31, 2002. The decrease was primarily the result of a reduction in work force in October 2001, due to limited capital resources.

GENERAL AND ADMINISTRATIVE EXPENSES

General and administrative expenses, which consist of business development expenses, and general administrative expenses, decreased by $1,456,344, or 28%, from $5,114,651 for the twelve months ended December 31, 2001, to $3,658,307 for the twelve months ended December 31, 2002. The decrease in the general and administrative area was primarily related to lower salary expenses resulting from a reduction in work force by 20% in October of 2001. We reorganized to more effectively manage existing resources and to accommodate our stronger focus on oncology and gene therapy. Our work force was reduced by 16 employees, including the Chief Operating Officer and the Chief Financial Officer.

As part of the reorganization in October 2001, we decided to postpone marketing efforts to launch the MedPulser Electroporation Therapy System in Europe that were initiated in early 2001.

NET LOSS FROM CONTINUING OPERATIONS

We reported a net loss from continuing operations of $5,908,044 for the twelve months ended December 31, 2002 compared to $4,973,847 for the twelve months ended December 31, 2001, an increase of $934,197, or 19%. The increase in loss was a result of lower revenues from license fees and milestone payments as well as lower revenues from grant funding and collaborative research and development arrangements which did not offset the twelve month period expenses.

NINE MONTHS ENDED DECEMBER 31, 2001 COMPARED TO NINE MONTHS ENDED DECEMBER 31, 2000

Due to the fiscal year end change to December 31 from March 31, the fiscal year ended December 31, 2001 is comprised of only nine months. In order to provide a more meaningful comparison and discussion of trends in revenues and expenses, the consolidated financial data for the nine-month periods ended December 31, 2001 and December 31, 2000 are presented in the following table and the results of these two periods are used in the discussion thereafter.

Fiscal periods ended	Nine months Ended December 31, 2001	Nine months Ended December 31,2000 (unaudited)
License fee and milestone payments	$ 981	$ 259,802
Revenues under collaborative research and development arrangements	109,669	314,448
Government grants	—	97,054
Total revenues	110,650	671,304
Research and development	2,078,421	3,614,125(1)
General and administrative	3,972,096	3,341,802(1)
Interest income	(98,865)	(340,048)
Interest expense	10,742	14,768
Total expenses	5,962,394	6,630,647
Net loss from continuing operations	(5,851,744)	(5,959,343)
Discontinued operations	(508,046)	(204,083)
Net loss for period before cumulative effect of change in accounting principle	(6,359,790)	(6,163,426)
Cumulative effect of change in accounting principle(2)	—	(3,647,059)
Net loss	$ (6,359,790)	$ (9,810,485)
Amount per common share — basic and diluted:		
Loss from continuing operations	$ (0.17)	$ (0.23)
Loss from discontinuing operations	(0.02)	(0.01)
Net loss before cumulative effect of change in accounting principle.	(0.19)	(0.24)
Cumulative effect of change in accounting principle	—	(0.14)
Net loss	$ (0.19)	$ (0.38)

(1) Certain reclassifications have been made to conform to the December 31, 2002 presentation.
(2) During the fourth quarter ended March 31, 2001, we changed our method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Effective April 1, 2000, we recorded the cumulative effect of the accounting change.

REVENUES

Due to the cancellation of the Licensing and Development Agreement with Ethicon Endo-Surgery, Inc. in 2000, license fee and milestone payments for the nine months ended December 31, 2001 declined over the same period of the previous year.

In November 2001, we entered into a non-exclusive license and supply agreement with Valentis, Inc. in the gene therapy field to use its MedPulser® System in the development of its GeneMedicine™ products. We have received an upfront payment of $100,000 in the first quarter of 2002 and will receive additional payments upon the achievements of specified milestones in the form of cash and stock of Valentis. The agreement expires in 2018.

There were no revenues from grant funding for the nine months ended December 31, 2001 compared to $97,054 for the nine months ended December 31, 2000. All active grants have expired.

During the nine months ended December 31, 2001, we recorded revenues under collaborative research and development arrangements in the amount of $109,669, compared to $314,448 for the nine months ended December 31, 2000. Revenues decreased over the previous year's period due to the fact that a major collaborative research agreement in the gene therapy area entered into in late 1999 was completed in the summer of 2001.

Interest income decreased from $340,048 for the nine months ended December 31, 2000 to $98,865 for the nine months ended December 31, 2001. The decrease resulted primarily from the diminishing availability of investment funds due to the continuing operating losses.

RESEARCH AND DEVELOPMENT

Research and development, which includes clinical trial costs, decreased by $1,535,704, or 42%, from $3,614,125 for the nine months ended December 31, 2000 to $2,078,421 for the nine months ended December 31, 2001. Reduced expenses in the oncolog research area, partially due to the expiration of research grants, contributed to these lower expenses.

The decrease also reflects lower clinical/regulatory expenses due to the completion of the Head and Neck Phase II clinical trials in the United States and Canada in the previous fiscal year.

GENERAL AND ADMINISTRATIVE EXPENSES

General and administrative expenses, which consist of advertising, promotion and selling expenses, business development expenses, and general administrative expenses, increased by $630,294, or 19%, from $3,341,802 for the nine months ended December 31, 2000, to $3,972,096 for the nine months ended December 31, 2001. An increase in the general and administrative area was partially related to higher salary expenses resulting from additions to our senior management team between August 2000 and January 2001 and a one-time severance accrual in the amount of about $240,000 as a result of the termination of employment of a senior executive in May of 2001. Also, in April 2001 a reduction of our headcount resulted in additional severance expenses of approximately $35,000. The change of our jurisdiction from British Columbia to Delaware also contributed to additional legal expenses of approximately $50,000 in the quarter ended June 30, 2001.

In October 2001, we reorganized to more effectively manage existing resources and to accommodate our stronger focus on oncology and gene therapy. Our work force was reduced by 16 employees, including the Chief Operating Officer and the Chief Financial Officer. Our estimated cost of this reorganization was approximately $211,000 which contributed to the increase in general and administrative expenses over the previous year's nine-month period.

Efforts to launch the MedPulser Electroporation Therapy System in Europe, initiated in early 2001, increased over the previous nine-month period ended December 31, 2000 by about $470,000. As part of the reorganization in October 2001, we decided to postpone the launch of the MedPulser Electroporation Therapy System in Europe to further reduce operating expenses.

NET LOSS FROM CONTINUING OPERATIONS

We reported a net loss from continuing operations of $5,851,744 for the nine months ended December 31, 2001 compared to $5,959,343 for the nine months ended December 31, 2000, an increase of $107,599 or 2%. The additional loss was a result of higher general and administrative expenditures and lower revenues from license fees and milestone payments as well as lower revenues from grant funding and collaborative research and development arrangements.

LIQUIDITY AND CAPITAL RESOURCES

During the last five fiscal years, our primary uses of cash have been to finance our research and development activities and clinical trial activities. Since inception, we have satisfied our cash requirements principally from proceeds from the sale of equity securities.

On January 17, 2001 we completed a public offering of 6,267,500 common shares at a price of CDN$1.35 per share for gross proceeds of CDN$8,461,125 (US$5,640,750) less expenses of CDN$1,102,877 (US$734,368). We also issued to our Agent, Canaccord Capital Corporation, compensation warrants exercisable until January 16, 2002 to acquire 500,000 common shares, at CDN$1.35 per common share. During the twelve months ended March 31, 2001, we issued 111,894 common shares upon the exercise of stock options of aggregate gross proceeds of $249,332. We also issued 50,000 common shares as compensation for corporate finance services.

In January 2002, we reduced the exercise price of the 500,000 Agent's Compensation Warrants from Cdn $1.35 to Cdn $1.10 and extended the expiry date to January 31, 2002. We agreed to the extension and the reduction

of the exercise price of the warrants to provide the Agent with an incentive to exercise the warrants, as the exercise of the warrants would provide us with a fast and inexpensive method of financing to support the research and development of our products and would continue to foster the goodwill between the parties. On January 16, 2002, we issued 500,000 common shares in respect of the exercise of these warrants for gross proceeds of Cdn $550,000 (US $337,506).

On June 6, 2002, we closed a private placement of 10,225,891 special warrants. 7,985,574 special warrants were issued at a subscription price of $0.42 per special warrant and 2,240,317 special warrants were issued at a subscription price of $0.47 per special warrant, for gross proceeds of $4,406,890. Each $0.42 special warrant is exercisable, without additional payment, into one share of common stock and a warrant for the purchase of one-third of one share of common stock. Each full common stock purchase warrant is exercisable for 12 months to purchase a share of common stock at $0.70. Total warrants at $0.70 are 2,661,851 and expired of June 6, 2003. Each $0.47 special warrant is exercisable, without additional payment, into one share of common stock and a warrant for the purchase of forty percent of one share of common stock Each full common stock purchase warrant is exercisable for 12 months to purchase one share of common stock at $0.65. A total of 896,125 such warrants are issuable and shall expire on June 6, 2003. The gross proceeds of this financing were reduced by issuance costs including the agent's commission of 6.0% of the gross proceeds of $264,413 and other issue costs of $306,708 incurred as of December 31, 2002. In October 2002, these special warrants were converted into 10,225,891 shares of common stock and 3,557,976 common stock purchaser warrants.

In connection with the issuance of the special warrants described in the proceeding paragraph, we granted Series "A" special warrants to the placement agent to acquire 665,000 shares of common stock for $0.47 per share. These warrants expire on June 6, 2005.

Pursuant to a consulting agreement dated June 12, 2001, we agreed to issue shares with a value of $55,000 based on the fair market value of our common stock on the completion date of the project in October 2001. As of December 31, 2001 these shares had not been issued and were recorded as common stock issuable. The 100,000 common shares were subsequently issued on January 9, 2002.

On November 30, 2001, we closed a private placement of 5,212,494 special warrants at a price of $0.45 per Special Warrant for gross proceeds of $2,345,622. Each Special Warrant entitles the holder to acquire one common share and one-half of a non-transferable warrant, without payment of further consideration, on the exercise or deemed exercise of the Special Warrant. Each full Warrant entitles the holder to purchase one common share at a price of $0.75 through May 30, 2003. The gross proceeds of this financing was reduced by issuance costs including the agent's, Canaccord Capital Corporation, commission of $175,922 representing 7.5% of the gross proceeds and other issue costs of $420,763 incurred as of December 31, 2001. Other issue costs were incurred for services provided by the agent, expenses incurred by the agent, and legal and accounting services. A portion of the other issue costs was incurred for legal services provided by a law firm where one of the partners serves as one of our directors. The agent was also granted Agent's Series A Special Warrants entitling the holder to acquire 100,000 common shares of the Company, without payment of further consideration, exercisable on or before November 30, 2002 and Agent's Series B Special Warrants entitling the agent to acquire 521,249 Agent's Share Purchase Warrants. Each Agent's Share Purchase Warrant entitles the holder to acquire one common share at a price of $0.45 per Agent's Share Purchase Warrant, exercisable through May 30, 2003. The amount paid in cash to the agent relating to the November 30, 2001 private placement totaled $317,085.

On January 25, 2002, we filed a preliminary prospectus in Canada qualifying our common shares and share purchase warrants. Of the total proceeds, 20% ($469,124) was withheld from us and placed in an escrow account by the placement agent. On February 28, 2002, however, the purchasers extended the date for obtaining approval for the Canadian Prospectus and the U.S. registration statement from February 28, 2002 to March 29, 2002. As of December 31, 2002, we recorded net proceeds of $1,335,104 which are a result of $2,345,622 gross proceeds less $1,010,518 issuance costs incurred as of December 31, 2002. In April 2002 we received $469,124 from the escrow account.

In November 2001, we entered into a note receivable agreement with one of our executive officers in the amount of $65,000, to enable the executive to purchase 144,000 Special Warrants offered through our private

placement. The loan plus accrued interest, at an interest rate of 5.0%, is payable on or before November 9, 2004. In 2002, $31,826 was repaid by the executive.

In January 2002, we extended the expiration date of 624,200 consultant stock options from January 15, 2002 to January 31, 2002 and reduced the exercise price from between Cdn $1.25 and Cdn $4.13 to Cdn $1.15. On January 21, 2002, we issued 499,199 common shares in respect of the exercise of these stock options for gross proceeds of Cdn $574,079 (US $361,287). As a result additional stock-based compensation of $39,936 was recorded in January 2002 at a fair value of $0.08 per option which was estimated by using the Black Scholes Pricing Model. The remaining 125,001 stock options expired.

As of December 31, 2002, we had working capital of $1,039,909 compared to $2,077,124 as of December 31, 2001. The decrease is primarily a result of the net loss of $5,964,827 for the twelve months ended December 31, 2002 offset by the net proceeds of $3,835,769 from the sales of Special Warrants.

On January 31, 2003, we completed the sale of substantially all of the properties and assets that are primarily used in our BTX Division. Genetronics Biomedical's stockholders, in a Special Stockholder's Meeting held on January 31, 2003, voted to approve the proposed sale to Harvard Bioscience, Inc. Including the cash and cash equivalents available at December 31, 2002 and the proceeds received in January 2003 from the sale of the BTX Division, we believe we have sufficient funds to fund operations through September 2003. The terms of the sale are $3.7 million in cash, subject to certain adjustments, and royalty on net sales of BTX products above certain sales targets for a period of four years.

As of December 31, 2002, we had an accumulated deficit of $53,326,547. 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. As of the date of this filing, there is substantial doubt about our ability to continue as a going concern due to our historical negative cash flow and because we do not have access to sufficient committed capital to meet our projected operating needs for at least the next twelve months. We are aggressively seeking further equity funding in order to satisfy our projected cash needs for at least the next twelve months. We are evaluating potential partnerships as additional ways to fund operations. We will continue to rely on outside sources of financing to meet our capital needs beyond next year. 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 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.

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 its 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.

CRITICAL ACCOUNTING POLICIES

We believe the following critical accounting policies involve significant judgments and estimates that are used in the preparation of our financial statements.

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 has received funding for pre-clinical research and clinical trials. Payments under these agreements, which are non-refundable, are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreement 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 (i) the achievement of specified milestones when we have earned the milestone payment, (ii) 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 recognizes 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.

Prior to the adoption of SAB 101, we initially recognized up-front non-refundable payments as revenue upon receipt, as these fees were non-refundable and we had transferred the technology and product rights upon the contract’s inception and incurred costs in excess of the up-front fees prior to the initiation of each arrangement. Upon the adoption of SAB 101, up-front non-refundable payments received which require our ongoing involvement are deferred and amortized into income on a straight-line basis over the term of the relevant license or related underlying product development period.

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 expected useful life of the underlying patents.

Long-lived assets

We assess the recoverability of the affected 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 if 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, 2002.

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.

ITEM 7A . QUALITATIVE AND QUANTITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk for changes in interest rates related primarily to the increase or decrease in the amount of interest income we can earn on our cash equivalents and on the increase or decrease in the amount of interest expense we must pay with respect to our capital lease obligations. We are subject to interest rate risk on our capital lease arrangements which carry an average fixed annual rate of approximately 17% and on our cash equivalents which at December 31, 2002 had an average interest rate of approximately 2.64%. Subsequent to December 31, 2002 all capital leases were paid in full. 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 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 while increases in interest rates over time will increase our interest expense.

FOREIGN CURRENCY RISK

We have operated primarily in the United States and most transactions in the fiscal year ending December 31, 2002, 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.

ITEM 8 . FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Beginning at Page F-1 at the end of this report.

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

None.

PART III

ITEM 10 . DIRECTORS AND EXECUTIVE OFFICERS OF THE COMPANY

The information required by Item 10 with respect to directors and officers is incorporated herein by reference to the information contained under the headings "Directors and Executive Officers of the Company" and

"Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive Proxy Statement for the Company's annual meeting of stockholders to be held on or about May 22, 2003(the "Proxy Statement").

ITEM 11 . EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated herein by reference to the information contained under the heading "Executive Compensation and Other Matters" in the Proxy Statement.

ITEM 12 . SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by Item 12 is incorporated herein by reference to the information contained under the heading "Stock Ownership of Certain Beneficial Owners and Management" in the Proxy Statement.

ITEM 13 . CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by Item 13 is incorporated herein by reference to the information contained under the headings "Compensation Committee Interlocks and Insider Participation" and "Certain Transactions" in the Proxy Statement.

PART IV

ITEM 14 . CONTROLS AND PROCEDURES

(a) Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of design and operation of our disclosure controls and procedures, as such term is defined under Rule 13a-14(c) promulgated under the Securities Exchange Act of 1934, as amended, within the 90 days prior to the filing date of this report. Based on their evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures are effective as of the evaluation date.

(b) There have been no significant changes (including corrective actions with regard to significant deficiencies or material weaknesses) in our internal controls or in other factors that could significantly affect these controls subsequent to the date of the evaluation referenced in paragraph (a) above.

ITEM 15 . EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a)(1) Index to Financial Statements

The consolidated financial statements required by this item are submitted in a separate section beginning on page F-1 of this Annual Report on Form 10-K.

(1)(2) Index to Financial Statement Schedules

Apart from the schedule below, all schedules are omitted because they are not required, are not applicable, or the information is included in the Financial Statements or Notes thereto appearing elsewhere in this Annual Report on Form 10-K.

(a)(3) Index to Exhibits

See Index to Exhibits beginning below.

(b) Reports on Form 8-K

(c) Exhibits

Exhibit Number	Description of Document
2.1	Plan of Reorganization(1)
3.1	Articles of Incorporation(2)
3.2	Certificate of Amendment to Certificate of Incorporation
3.3	Amended and Restated Bylaws(3)
4.3	Shareholders Rights Agreement dated June 20, 1997 by and between the Registrant and Montreal Trust Company of Canada, as amended on August 21, 1997(14)
10.1	2000 Stock Option Plan(4)
10.2	Forms of Incentive and Nonstatutory Stock Option Agreements used in connection with the 2000 Stock Option Plan(4)
10.3	Lease Agreement by and between the Registrant and Nexus Sorrento Glen LLC dated August 26, 1999(5)
10.4	Stock Purchase Agreement dated October 6, 1998 by and between the Registrant and Johnson & Johnson Development Corporation(6)
10.5	Consulting Services Agreement dated December 6, 1999 by and between the Registrant and Lois J. Crandell(7)
10.6	Consulting Services Agreement dated December 6, 1999 by and between the Registrant and Günter A. Hofmann(7)
10.7	First Amendment to Agreement Concerning Termination of Employment of Lois J. Crandell dated May 24, 2000 by and between the Registrant and Lois J. Crandell(8)
10.8	First Amendment to Consulting Services Agreement dated May 24, 2000 by and between the Registrant and Lois J. Crandell(8)
10.9	First Amendment to Agreement Concerning Termination of Employment of Günter A. Hofmann dated May 24, 2000 by and between the Registrant and Günter A. Hofmann(8)
10.10	First Amendment to Consulting Services Agreement dated May 24, 2000 by and between the Registrant and Günter A. Hofmann(8)
10.11	Distribution Agreement Effective April 1, 2000 by and between the Company and Merck Eurolab GMBH(9) †
10.12	License Agreement dated September 20, 2000 by and between the Registrant and the University of South Florida Research Foundation, Inc.,(10) †
10.13	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and the University of South Florida Research Foundation(10) †
10.14	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Richard Gilbert(10) †
10.15	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Richard Heller(10) †
10.16	Warrant to Purchase Common Stock, dated September 15, 2000 by and between the Registrant and Dr. Mark Jaroszeski(10) †
10.17	Distributorship Agreement dated December 1, 2000 by and between the Registrant and Fisher Scientific Company LLC(11) †
10.18	Consulting Services Agreement dated May 15, 2001 by and between the Registrant and Martin Nash(12)
10.19	Separation Agreement dated July 17, 2001 by and between the Registrant and Martin Nash(13)
10.20	Amended 2000 Stock Option Plan(13)
10.21	Employment Agreement dated October 10, 2001 by and between the Registrant and Avtar Dhillon(14)
10.22	Separation Agreement dated November 7, 2001 by and between the Registrant and Terry Gibson(15)
10.23	Agency Agreement — Special Warrant Private Placement dated November 1, 2001 by and between the Registrant and Canaccord Capital Corporation(16)
10.24	Employment Agreement dated October November 15, 2001 by and between the Registrant and James L. Heppell(17)
10.25	Separation Agreement dated November 20, 2001 by and between the Registrant and Grant Denison, Jr.(18).
10.26	Asset Purchase Agreement entered into by and between the Registrant and ICN Biomedicals, Inc.

Exhibit Number	Description of Document
	dated June 19, 2002(19)
10.27	Asset Purchase Agreement by and among the Registrant, Genetronics, Inc. and Harvard Bioscience, Inc. dated December 24, 2002(20)
21.1	Subsidiaries of the Registrant(8)
23.1	Consent of Ernst & Young LLP, Independent Auditors (San Diego, California)
23.2	Consent of Ernst & Young LLP, Independent Auditors (Vancouver)
24.1	Power of Attorney. Reference is made to page headed "Signatures"
99.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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

(1) Filed as an exhibit to Registrant's Form S-4 on April 9, 2001 and incorporated herein by reference.
(2) Filed as an exhibit to Registrant's Registration Statement on Form S-4 (333-56978) and incorporated herein by reference.
(3) Filed as an exhibit to Registrant's Report on Form 10-Q for the quarter ended September 30, 2002 and incorporated herein by reference.
(4) Filed as an exhibit to Registrant's Form S-8 on April 2, 2001 and incorporated herein by reference.
(5) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended September 30, 1999 and incorporated herein by reference.
(6) Filed as an exhibit to Registrant's Form 10-K for the period ended March 31, 1999 and incorporated herein by reference.
(7) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended December 31, 1999 and incorporated herein by reference.
(8) Filed as an exhibit to Registrant's Form 10-K for the year ended March 31, 2000 and incorporated herein by reference.
(9) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended June 30, 2000 and incorporated herein by reference.
(10) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended September 30, 2000 and incorporated herein by reference.
(11) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended December 31, 2000 and incorporated herein by reference.
(12) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended June 30, 2001 and incorporated herein by reference.
(13) Filed as an exhibit to Registrant's Form 10-Q for the quarter ended September 30, 2001 and incorporated herein by reference.
(14) Filed as an exhibit to Registrant's Form S-3/A (333-76738) and incorporated herein by reference.
(15) Filed as Exhibit 10.22 to Registrant's Form 10-K for the year ended December 31, 2001 and incorporated herein by reference.
(16) Filed as Exhibit 10.23 to Registrant's Form 10-K for the year ended December 31, 2001 and incorporated herein by reference.
(17) Filed as Exhibit 10.24 to Registrant's Form 10-K for the year ended December 31, 2001 and incorporated herein by reference.
(18) Filed as Exhibit 10.25 to Registrant's Form 10-K for the year ended December 31, 2001 and incorporated herein by reference.
(19) Filed as Exhibit 99(A) to Registrant's Preliminary Proxy Statement on July 30, 2002 and incorporated herein by reference.
(20) Filed as A to Registrant's Preliminary Proxy Statement on December 26, 2002 and incorporated herein by reference.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Company has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on this day March 28, 2003.

Genetronics Biomedical Corporation

By: /s/ Avtar Dhillon

Avtar Dhillon
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Dr. Avtar S. Dhillon and Peter Kies, or any of them, his attorney-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may 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 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 28, 2003
/s/ Peter Kies Peter Kies	Chief Financial Officer (Principal Accounting Officer and Principal Financial Officer)	March 28, 2003
/s/ Felix Theeuwes Felix Theeuwes	Director	March 28, 2003
/s/ James L. Heppell James L. Heppell	Director	March 28, 2003
/s/ Gordon J. Politeski Gordon J. Politeski	Director	March 28, 2003

I, Avtar Dhillon, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2002 of Genetronics Biomedical Corporation.

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

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

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

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

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 28, 2003

/s/ Avtar Dhillon
Avtar Dhillon,
President and Chief Executive Officer

I, Peter Kies, certify that:

1. I have reviewed this annual report on Form 10-K for the year ended December 31, 2002 of Genetronics Biomedical Corporation.

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:

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

b) evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and

c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;

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

a) all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and

b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and

6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 28, 2003

/s/ Peter Kies
Peter Kies,
Chief Financial Officer

GENETRONICS BIOMEDICAL CORPORATION
(in United States dollars)

Index to Financial Statements

The consolidated financial statements required by this item are submitted in a separate section beginning on page F-2 of this Annual Report on Form 10-K.

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of
Genetronics Biomedical Corporation

We have audited the accompanying consolidated balance sheets of Genetronics Biomedical Corporation (the "Company") as of December 31, 2002 and 2001 and the related consolidated statements of operations, shareholders' equity and cash flows for the year ended December 31, 2002 and the nine months ended December 31, 2001. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform an 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 provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2002 and 2001 and the consolidated results of its operations and its cash flows for the year ended December 31, 2002 and the nine months ended December 31, 2001, in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1 to the financial statements, the Company has reported working capital of $1,039,909 and an accumulated deficit of $53,326,547 and without additional financing, lacks sufficient working capital to fund operations for the entire fiscal year ending December 31, 2003, which raises substantial doubt about its ability to continue as a going concern. Management's plans as to these matters are described in Note 1. The accompanying consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Ernst & Young, LLP
Ernst & Young, LLP

San Diego, California
February 7, 2003

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

To the Board of Directors and Stockholders of
Genetronics Biomedical Corporation (formerly Genetronics Biomedical Ltd.)

We have audited the consolidated statements of operations, shareholders' equity and cash flows of Genetronics Biomedical Corporation (formerly Genetronics Biomedical Ltd.) for the year ended March 31, 2001. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audit.

We conducted our audit in accordance with Canadian and United States generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance 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.

In our opinion, these consolidated financial statements present fairly, in all material respects, the results of operations and cash flows of the Company for the year ended March 31, 2001 in accordance with accounting principles generally accepted in the United States.

As discussed in note 4 to the financial statements, during the year ended March 31, 2001 the Company changed its method of accounting for revenue recognition.

On May 4, 2001, we reported separately to the shareholders of Genetronics Biomedical Corporation (formerly Genetronics Biomedical Ltd.) on financial statements for the same period, prepared in accordance with Canadian generally accepted accounting principles.

Vancouver, Canada,
May 4, 2001, except for Notes 1 and 11,
which are as at December 19, 2001

/s/ ERNST & YOUNG LLP
Chartered Accountants

Genetronics Biomedical Corporation

CONSOLIDATED BALANCE SHEETS

	December 31, 2002	December 31, 2001
ASSETS		
Current		
Cash and cash equivalents	$ **875,444**	$ 1,813,100
Accounts receivable	**75,588**	164,227
Prepaid expenses and other	**229,384**	6,327
Assets of discontinued operations	**1,517,496**	1,698,557
Total current assets	**2,697,912**	3,682,211
Fixed assets, net	**295,321**	573,629
Patents and other assets, net	**2,425,992**	2,377,874
Total Assets	**$ 5,419,225**	$ 6,633,714
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current		
Accounts payable and accrued expenses	**$ 1,032,939**	$ 753,457
Current portion of obligations under capital leases	**20,642**	27,475
Deferred revenue	**202,654**	115,020
Liabilities of discontinued operations	**401,769**	709,135
Total current liabilities	**1,658,004**	1,605,087
Deferred rent	**35,851**	44,880
Obligations under capital leases	**—**	20,642
Total liabilities	**1,693,855**	1,670,609
Shareholders' equity		
Common stock — par value $0.001; Authorized shares: 300,000,000 issued and outstanding: 50,398,552 at December 31, 2002 and 33,760,968 at December 31, 2001	**50,398**	33,761
Additional paid-in capital	**57,137,202**	51,123,760
Special warrants	**—**	1,748,937
Receivables from executive/shareholders for stock purchase	**(33,445)**	(534,395)
Shares to be issued	**—**	55,000
Accumulated comprehensive income	**(102,238)**	(102,238)
Accumulated deficit	**(53,326,547)**	(47,361,720)
Total shareholders' equity	**3,725,370**	4,963,105
Total liabilities and shareholders' equity	$ **5,419,225**	$ 6,633,714

See accompanying notes

Genetronics Biomedical Corporation

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year ended December 31, 2002	Nine months ended December 31, 2001	Year ended March 31, 2001
REVENUE			
License fee and milestone payments	**$ 5,883**	$ 981	$ 3,730,392
Revenues under collaborative research and development arrangements	**183,638**	109,669	459,711
Government grants	**—**	—	101,086
Total revenue	**189,521**	110,650	4,291,189
EXPENSES			
Research and development	**2,466,129**	2,078,421	5,145,955
General and administrative	**3,658,307**	3,972,096	4,437,630
Total operating expenses	**6,124,436**	6,050,517	9,583,585
Loss from operations	**(5,934,915)**	(5,939,867)	(5,292,396)
Other income(expense)			
Interest income	**32,316**	98,865	443,629
Interest expense	**(5,445)**	(10,742)	(20,380)
Foreign exchange loss	—	—	(66,453)
Loss from continuing operations	(5,908,044)	(5,851,744)	(4,935,600)
Discontinued operations	(56,783)	(508,046)	(283,696)
Loss before cumulative effect of change in accounting principle	**(5,964,827)**	(6,359,790)	(5,219,296)
Cumulative effect of change in accounting principle for revenue recognition	—	—	(3,647,059)
Net loss	**(5,964,827)**	(6,359,790)	(8,866,355)
Foreign currency translation loss adjustment	—	—	(1,327)
Unrealized gain on short-term investments/ reclassification of loss	—	(2,152)	2,152
Comprehensive loss	**$ (5,964,827)**	$ (6,361,942)	$ (8,865,530)
Amounts per common share – basic and diluted:			
Loss from continuing operations	$ (0.15)	$ (0.17)	$ (0.18)
Loss from discontinued operations	—	(0.02)	(0.01)
Loss before cumulative effect of change in accounting principle	**(0.15)**	(0.19)	(0.19)
Loss from cumulative effect of a change in accounting principle	—	—	(0.13)
Net loss	**$ (0.15)**	$ (0.19)	$ (0.32)
Pro forma loss assuming the change in accounting principle is applied retroactively before cumulative effect of change in accounting principle	**$ (5,964,827)**	$ (6,359,790)	$ (5,219,296)
Pro forma loss per common share – basic and diluted assuming the change in accounting principle is applied retroactively	**$ (0.15)**	$ (0.19)	$ (0.19)
Weighted average number of common shares	**40,592,831**	33,759,404	27,648,854

See accompanying notes

Genetronics Biomedical Corporation

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Common stock		Additional		Receivables		Accumulated		Total
	Number of shares	Amount	Paid-in capital	Special warrant	from executive/share holder	Common Stock Issuable	comprehensive income	Accumulated deficit	shareholder's equity
	[restated note 10]		[restated note 10]						
Balance at March 31, 2000	22,832,324	$ 22,832	$ 33,041,861	$ 11,002,992	$ —	$ —	$ (100,911)	$ (32,135,575)	$ 11,831,199
Private placement (net of issuance costs of $734,368) for cash	6,267,500	6,268	4,900,114	—	—	—	—	—	4,906,382
Exercise of stock options for cash	111,894	112	249,220	—	—	—	—	—	249,332
Exercise of warrants for cash	180,500	180	597,275	—	—	—	—	—	597,455
Issued for corporate finance services	50,000	50	44,950	—	—	—	—	—	45,000
Issued pursuant to exercise of special warrants	4,164,500	4,165	10,998,827	(11,002,992)	—	—	—	—	—
Issued pursuant to license agreement	150,000	150	900,300	—	—	—	—	—	900,450
Stock-based compensation	—	—	226,000	—	—	—	—	—	226,000
Unrealized loss on foreign currency translation	—	—	—	—	—	—	(1,327)	—	(1,327)
Unrealized gains on short-term investments	—	—	—	—	—	—	2,152	—	2,152
Net loss	—	—	—	—	—	—	—	(8,866,355)	(8,866,355)
Balance at March 31, 2001	33,756,718	33,757	50,958,547	—	—	—	(100,086)	(41,001,930)	9,890,288
Exercise of stock options for cash	4,250	4	4,619	—	—	—	—	—	4,623
Issuance of special warrants (net of issuance cost of $596,685 incurred in 2001) for cash	—	—	—	1,748,937	—	—	—	—	1,748,937
Issuance of note receivable from executive for purchase of stock	—	—	—	—	(65,271)	—	—	—	(65,271)
Receivable from shareholders	—	—	—	—	(469,124)	—	—	—	(469,124)
Common stock issuable pursuant to services	—	—	—	—	—	55,000	—	—	55,000
Unrealized losses on short-term investments	—	—	—	—	—	—	(2,152)	—	(2,152)
Stock-based compensation	—	—	160,594	—	—	—	—	—	160,594
Net loss	—	—	—	—	—	—	—	(6,359,790)	(6,359,790)
Balance at December 31, 2001	33,760,968	33,761	51,123,760	1,748,937	(534,395)	55,000	(102,238)	(47,361,720)	4,963,105
Exercise of stock options for cash	499,199	499	360,788	—	—	—	—	—	361,287
Exercise of warrants for cash	500,000	500	337,006	—	—	—	—	—	337,506
Issued pursuant to exercise of special warrants (net of issuance costs of $413,833 incurred in 2002)	5,212,494	5,212	1,329,792	(1,748,837)	—	—	—	—	(413,833)
Issued pursuant to exercise of series A special warrants	100,000	100	—	(100)	—	—	—	—	—
Issuance of special warrants (net of issuance cost of $571,121) for cash	—	—	—	3,835,769	—	—	—	—	3,835,769
Issued pursuant to exercise of special warrants	10,225,891	10,226	3,825,543	(3,835,769)	—	—	—	—	—
Common stock issued pursuant to services	100,000	100	54,900	—	—	(55,000)	—	—	—
Repayment of note receivable from executive for purchase of stock	—	—	—	—	31,826	—	—	—	31,826
Repayment of receivable from shareholders	—	—	—	—	469,124	—	—	—	469,124
Stock-based compensation	—	—	105,413	—	—	—	—	—	105,413
Net loss	—	—	—	—	—	—	—	(5,964,827)	(5,964,827)
Balance at December 31, 2002	50,398,552	$ 50,398	$ 57,137,202	$ —	$ (33,445)	$ —	$ (102,238)	$ (53,326,547)	$ 3,725,370

See accompanying notes

Genetronics Biomedical Corporation

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year ended December 31 2002	Nine months ended December 31 2001	Year ended March 31 2001
OPERATING ACTIVITIES			
Loss from continued operations	$ (5,908,044)	$ (5,851,744)	$ (4,935,600)
Cumulative effect of change in accounting principle for revenue recognition	—	—	(3,647,059)
Net loss from continued operations adjusted for cumulative effect of change in accounting principle	(5,908,044)	(5,851,744)	(8,582,659)
Items not involving cash:			
Compensation for services paid in stock options	105,413	215,594	226,000
Depreciation and amortization	619,344	530,244	623,511
Gain on disposal of fixed assets	—	(6,467)	—
Deferred rent	(9,029)	9,979	24,929
Restructuring charges	—	86,454	(277,451)
Write-down of fixed assets	—	—	17,157
Write-down of patents and other assets	—	4,649	31,360
Changes in non-cash working capital items:			
Accounts receivable	88,639	(133,051)	274,139
Inventories	—	—	148,963
Prepaid expenses and other	(223,057)	55,072	78,024
Accounts payable and accrued expenses	279,482	41,207	(94,760)
Deferred revenue	87,634	64,991	(218,636)
Cash used in operating activities	(4,959,618)	(4,983,072)	(7,749,423)
INVESTING ACTIVITIES			
Sale (purchase) of short-term investments	—	2,804,468	(2,804,468)
Disposal (purchase) of capital assets	19,561	(52,395)	(239,013)
Increase in patents and other assets	(408,715)	(288,651)	(320,587)
Cash (used in) provided by investing activities	(389,154)	2,463,422	(3,364,068)
FINANCING ACTIVITIES			
Payments on obligations under capital leases	(27,475)	(51,574)	(58,334)
Payment of loan to executive	—	(65,271)	—
Repayment of loan from executive	31,826	—	—
Repayment of receivable from shareholder	469,124	—	—
Proceeds from issuance of special warrants, net of issue costs	3,421,936	1,279,813	—
Proceeds from issuance of common shares, net of issue costs	698,793	4,623	5,798,169
Cash provided by financing activities	4,594,204	1,167,591	5,739,835
Effect of exchange rate changes on cash	—	—	(1,327)
Net cash used in discontinued operations	(183,088)	(556,167)	(646,035)
Decrease in cash and cash equivalents	(937,656)	(1,908,226)	(6,021,018)
Cash and cash equivalents, beginning of period	1,813,100	3,721,326	9,742,344
Cash and cash equivalents, end of period	$ 875,444	$ 1,813,100	$ 3,721,326

See accompanying notes

1. NATURE OF BUSINESS AND BASIS OF PRESENTATION

Genetronics Biomedical Corporation (the "Company") was incorporated on August 8, 1979 under the laws of British Columbia. The Company carries out its business through its United States wholly-owned subsidiary, Genetronics, Inc., that was incorporated in California on June 29, 1983. The Company is developing drug delivery systems which are designed to use electroporation to enhance drug or gene delivery in the areas of oncology, dermatology, gene therapy, cardiology and transdermal drug delivery.

The Company's consolidated financial statements for the twelve months ended December 31, 2002 have been prepared on a going concern basis, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business for the foreseeable future.

The Company incurred a net loss of $5,964,827 for the year ended December 31, 2002, has working capital of $1,039,909 and has an accumulated deficit of $53,326,547 at December 31, 2002. The ability of the Company to continue as a going concern is dependent upon its ability to achieve profitable operations and to obtain additional capital. These factors raise substantial doubt about the Company's ability to continue as a going concern. In January 2003, the Company completed the sale of substantially all of the properties and assets that are primarily used in its BTX Division to a third party for a purchase price of $3.7 million in cash. The Company is aggressively seeking further funding in order to satisfy its projected cash needs for at least the next twelve months. The Company will continue to rely on outside sources of financing to meet its capital needs beyond next year. The outcome of these matters cannot be predicted at this time. Further, there can be no assurance, assuming the Company successfully raises additional funds, that the Company will achieve positive cash flow. If the Company is not able to secure additional funding, it will be required to further scale back its 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 the Company be unable to continue in business.

On June 15, 2001, the Company completed a change in its jurisdiction of incorporation from British Columbia, Canada into the state of Delaware. The change was accomplished through a continuation of Genetronics Biomedical Ltd., a British Columbia Corporation, into Genetronics Biomedical Corporation, a Delaware corporation. Concurrent with the continuation of the Company in Delaware, the shareholders authorized for issuance 100,000,000 common shares with a $0.001 par value. The Company also changed its fiscal year end from March 31 to December 31 effective with the fiscal year ended December 31, 2001. For comparability purposes, the following financial data is provided for the twelve months ended December 31, 2002 compared to the twelve months ended December 31, 2001 and the nine months ended December 31, 2001, compared to the nine months ended December 31, 2000.

Twelve months December 31, 2002 compared to December 31, 2001

Fiscal periods ended	Twelve months ended December 31, 2002	Twelve months ended December 31, 2001 (Unaudited)
License fee and milestone payments(1)	$ 5,883	$ 3,471,571
Revenues under collaborative research and development arrangements	183,638	254,932
Government grants	—	4,032
Total revenues	189,521	3,730,535
Research and development	2,466,129	3,709,370(2)
General and administrative	3,658,307	5,114,651(2)
Interest income	(32,316)	(202,446)
Interest expense	5,445	16,354
Foreign exchange loss	—	66,453
Total expenses	6,097,565	8,704,382
Net loss from continuing operations	(5,908,044)	(4,973,847)
Discontinued operations	(56,783)	(441,813)
Net Loss	$ (5,964,827)	$ (5,415,660)
Amount per common share – basic and diluted:		
Loss from continuing operations	$ (0.15)	$ (0.15)
Loss from discontinuing operations	—	(0.01)
Net loss	$ (0.15)	$ (0.16)

Nine months ended December 31, 2001 compared to December 31, 2000

Fiscal periods ended	Nine months ended December 31, 2001	Nine months ended December 31, 2000 (Unaudited)
License fee and milestone payments	$ 981	$ 259,802
Revenues under collaborative research and development arrangements	109,669	314,448
Government grants	—	97,054
Total revenues	110,650	671,304
Research and development	2,078,421	3,614,125 (2)
General and administrative	3,972,096	3,341,802 (2)
Interest income	(98,865)	(340,048)
Interest expense	10,742	14,768
Total expenses	5,962,394	6,630,647
Net loss from continuing operations	(5,851,744)	(5,959,343)
Discontinued operations	(508,046)	(204,083)
Net loss for period before cumulative effect of change in accounting principle	(6,359,790)	(6,163,426)
Cumulative effect of change in accounting principle	—	(3,647,059)
Net loss	$ (6,359,790)	$ (9,810,485)
Amount per common share – basic and diluted:		
Loss from continuing operations	$ (0.17)	$ (0.23)
Loss from discontinuing operations	(0.02)	(0.01)
Net loss before cumulative effect of change in accounting principle.	(0.19)	(0.24)
Cumulative effect of change in accounting principle	—	(0.14)
Net loss	$ (0.19)	$ (0.38)

(1) During the quarter ended March 31, 2001, the Company changed its method of accounting for revenue recognition in accordance with Staff Accounting Bulletin No. 101, Revenue Recognition in Financial Statements. Effective April 1, 2000, the Company recorded the cumulative effect of the accounting change.

(2) Certain reclassifications have been made to conform to the December 31, 2002 presentation.

2. ACCOUNTING POLICIES

As a result of the continuation of the Company from British Columbia, Canada, to Delaware, these financial statements have been prepared in accordance with generally accepted accounting principles in the United States. A reconciliation of amounts presented in accordance with Canadian generally accepted accounting principles

is detailed in note 19. The following is a summary of significant accounting policies used in the preparation of these consolidated financial statements in accordance with GAAP-US.

Consolidation

These consolidated financial statements include the accounts of Genetronics Biomedical Corporation and its wholly-owned subsidiary, Genetronics, Inc., a company incorporated in the state of California. Effective May 2000, Genetronics Inc. closed the operations of its wholly owned subsidiary Genetronics SA, a company incorporated in France and subsequently sold its investment in Genetronics SA for nominal consideration to Geser SA, a company owned by the former General Manager of Genetronics SA. Significant intercompany accounts and transactions have been eliminated on consolidation.

Discontinued operations

The Company's Board of Directors has decided to focus the attention and resources of the Company on its Drug and Gene Delivery Division. In connection with this decision, the Company sold the assets of the BTX Instrument Division in January 2003 as noted in Note 1. Accordingly, the BTX Instrument Division, which was previously classified as a separate segment, has been classified as discontinued operations for financial reporting purposes.

Fiscal Periods ended	As of December 31, 2002	As of December 31, 2001
Accounts receivable, net	$ 703,604	$ 776,103
Inventory, net	765,754	847,907
Fixed assets, net	48,138	74,547
Assets of discontinued operations	$ 1,517,496	$ 1,698,557
Accounts payable	$ 148,948	$ 246,170
Accrued expenses	252,821	462,965
Liabilities of discontinued operations	$ 401,769	$ 709,135

Operating results of the Company's discontinued operations are shown separately in the accompanying consolidated statements of operations. The BTX Instruments Division had sales of $3,500,557, $3,017,747 and $4,452,939 for the year ended December 31, 2002, nine months ended December 31, 2001 and year ended March 31, 2001, respectively. These amounts are not included in sales in the consolidated statements of operations.

Use of estimates

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the amounts recorded in the consolidated financial statements. Actual results could differ from those estimates.

Foreign currency translation

Through December 31, 2000, the functional currency of the Company was the Canadian dollar, while the reporting currency in the consolidated financial statements was the U.S. dollar. Assets and liabilities were translated into U.S. dollars using current exchange rates in effect at the balance sheet date. Revenue and expense accounts were translated using the weighted average exchange rate during the year. Gains and losses resulting from this process were recorded in shareholders' equity as an adjustment to the cumulative translation adjustment account.

Effective January 1, 2001, due to a change in circumstances, the functional currency of the Company changed to the U.S. dollar. Accordingly, non-U.S. monetary assets and liabilities are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Revenue and expenses are translated at the average exchange rate for the year. Gains or losses arising on this foreign currency translation are recorded in net loss.

The accounts of the Company's French subsidiary, which was an integrated entity to the Company's U.S. subsidiary until May 2000, were recorded in French francs and have been translated into U.S. dollars such that monetary assets and liabilities were translated at the year-end exchange rates. Non-monetary assets and liabilities were translated using historical rates of exchange. Revenues and expenses were translated at the rates of exchange prevailing on the dates such items are recognized in earnings. Exchange gains and losses were included in income for the year. The effect on the statement of operations of transaction gains and losses was insignificant.

Cash equivalents

The Company considers all highly liquid investments with maturities of 90 days or less, when purchased, to be cash equivalents. Cash equivalents are stated at cost, which approximates market value.

Fixed assets

Fixed assets are stated at cost and depreciated over the estimated useful lives of the assets (three to seven years) using the straight-line method. Leasehold improvements and equipment under capital leases are being depreciated over the shorter of the estimated useful lives of the assets or the term of the lease. Depreciation of leased assets is included in depreciation and amortization.

Allowance for doubtful accounts

The company provides for allowance for doubtful accounts based on a specific identification method.

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. As of December 31, 2002, the Company expects amortization on intangible assets over the next five years of approximately $350,000 per year.

License costs are recorded based on the fair value of consideration paid and amortized using the straight-line method over the expected useful life of the underlying patents.

Long-Lived Assets

The Company reviews 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.

In August 2001, the FASB issued Statement No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets* (SFAS 144), which the Company adopted on January 1, 2002. This Statement establishes a number of rules for the recognition, measurement and display of long-lived assets which are impaired and either held for sale or continuing use within the business. In addition, the statement broadly expands the definition of a discontinued operation to individual reporting units or asset groupings for which identifiable cash flows exist. In accordance with SFAS 144, the assets and liabilities of the BTX Instrument Division have been presented as discontinued operations.

While the Company's current and historical operating and cash flow losses are indicators of impairment, the Company believes the future discounted cash flows to be received from the long-lived assets will exceed the assets carrying value, and accordingly, the Company has not recognized any impairment losses through December 31, 2002.

Income taxes

The Company accounts 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.

Government grants

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

Revenue recognition

The Company has adopted a strategy of co-developing or licensing its gene delivery technology for specific genes or specific medical indications. Accordingly, the Company has entered into collaborative research and development agreements and has received funding for pre-clinical research and clinical trials. Payments under these agreements, which are non-refundable, are recorded as revenue as the related research expenditures are incurred pursuant to the terms of the agreement 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 (i) the achievement of specified milestones when the Company has earned the milestone payment, (ii) the milestone payment is substantive in nature and the achievement of the milestone was not reasonably assured at the inception of the agreement. The Company defers payments for milestone events which are reasonably assured and recognizes them ratably over the minimum remaining period of the Company's 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.

Prior to the adoption of SAB 101, the Company initially recognized up-front non-refundable payments as revenue upon receipt, as these fees were non-refundable and the Company had transferred the technology and product rights upon the contract's inception and incurred costs in excess of the up-front fees prior to the initiation of each arrangement. Upon the adoption of SAB 101, up-front non-refundable payments received which require the ongoing involvement of the Company are deferred and amortized into income on a straight-line basis over the term of the relevant license or related underlying product development period.

Net loss per share

Net loss per share is calculated in accordance with FASB statement 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.

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 the facility lease.

Stock-based compensation

The Company follows Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB25) and related interpretations, in accounting for its employee stock options. Under APB25, because the exercise price of the Company's options for common shares granted to employees is not less than the fair market value of the underlying stock on the date of grant, no compensation expense has been recognized. Options awarded to non-employees, including consultants, are recorded at their fair values using the Black Scholes option pricing model based on the vesting terms of the options. The Company has also adopted the disclosure-only alternative of FASB Statement No.123, *Accounting for Stock-Based Compensation* (SFAS 123).

Pro forma information regarding net income and earnings per share is required by SFAS 123, which also requires that the information be determined as if the Company has accounted for its employee stock options granted under the fair value method of that statement. The fair value for these options was estimated at the date of grant using a Black-Scholes pricing model with the following weighted average assumptions for the year ended December 31, 2002: risk free interest rate of 3.88% [nine months ended December 31, 2001 – 4.9%; year ended March 31, 2001— 5.6%]; dividend yield of 0%; volatility factor of the expected market price of the Company's common stock of 1.43 [nine months ended December 31, 2001 — 1.25; year ended March 31, 2001 — 0.75]; and a weighted average expected life of the options of 9 years [nine months ended December 31, 2001 — 9 years; year ended March 31, 2001 — 9 years].

The Black Scholes options valuation model was developed for use in estimating the fair value of trade 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. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

The weighted-average fair value of options granted during the year ended December 31, 2002 which were granted at fair market value on the date of grant was $ 0.35 [nine months ended December 31, 2001 — $0.80; year ended March 31, 2001 - $1.51].

Supplemental disclosure of pro forma loss and loss per common share is as follows:

	Year ended December 31 2002	Nine months ended December 31 2001	Year ended March 31 2001
Pro forma loss	$ **(6,555,160)**	$ (7,035,870)	$ (10,636,154)
Pro forma loss per common share	$ **(0.16)**	$ (0.21)	$ (0.38)

Recent accounting pronouncement

In June 2002, the FASB issued Statement No. 146 (SFAS 146), *Accounting for Costs Associated with Exit or Disposal* . SFAS 146 addresses financial accounting and reporting for costs associated with exit or disposal activities and supersedes EITF Issue No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity (including Certain Costs Incurred in a Restructuring)*. The principle difference between SFAS 146 and Issue 94-3 relates to the requirements under SFAS 146 for recognition of a liability for a cost associated with an exit or disposal activity. SFAS 146 requires that a liability for a cost associated with and exit or disposal activity recognized when the liability is incurred. Under Issue 94-3, a liability for an exit cost as generally defined in Issue 94-3 was recognized at the date of an entity's commitment to an exit plan. The provisions of SFAS 146 are effective for exit or disposal activities that are initiated after December 31, 2002, with early application encouraged. We do not expect that the adoption of SFAS 146 will have material impact on the consolidated financial statements.

In November 2002, the FASB issued Interpretation No. 45, *Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others* (the Interpretation). The Interpretation will significantly change current practice in the accounting for, and disclosure of, guarantees. Guarantees meeting the characteristics described in the Interpretation are required to be initially recorded at fair value, which is different from the general current practice of recording a liability only when a loss is probable and reas onably estimable, as those terms are defined in FASB Statement No. 5, *Accounting for Contingencies*. The Interpretation also requires a guarantor to make significant new disclosures for virtually all guarantees even when the likelihood of guarantor's having to make payments under the guarantee is remote. The Interpretation's disclosure requirements are effective for financial statements with annual periods ending after December 15, 2002. The Interpretation's initial recognition and initial measurement provisions are applicable on a prospective basis to guarantees issued or modified after December 31, 2002. The guarantor's previous accounting for guarantees issued prior to the date of the Interpretation's initial application will not be revised or restated to reflect the Interpretation's provisions. The Company has adopted the disclosure provision of The Interpretation as of December 31, 2002. Management believes the adoption of the Interpretation will not have a significant effect on the Company's financial position, results of operations or cash flows.

In December 2002, the FASB issued SFAS No. 148 *"Accounting for Stock-Based Compensation – Transition and Disclosure – an amendment of FASB Statement No. 123."* This statements amends SFAS No. 123 *" Accounting for Stock Based Compensation"* to provide alternative methods of voluntarily transitioning to the fair value based method of accounting for stock-based employee compensation. SFAS 148 also amends the disclosure requirements of SFAS 123 to require disclosure of the method used to account for stock-based employee compensation and the effect of the method on reported results in both annual and interim financial statements. The disclosure provisions are effective for us beginning with our year ended December 31, 2002. We have not yet completed the final evaluation of the options presented by SFAS 148. However, within fiscal year 2003, we expect to reach determination of whether and, if so, when to change our existing accounting for stock-based compensation to the fair value method in accordance with the transition alternatives of SFAS 148.

3. FINANCIAL INSTRUMENTS

For certain of the Company's financial instruments including cash equivalents, accounts receivable, accounts payable and accrued expenses the carrying values approximate fair value due to their short term nature. The obligations under capital lease bear interest rates which in management's opinion approximate the current interest rate at which the Company could borrow at and therefore approximate fair value.

4. CHANGE IN ACCOUNTING PRINCIPLE

During the fourth quarter ended March 31, 2001, the Company changed its accounting policy for upfront non-refundable license payments received in connection with collaborative license arrangements in accordance with Staff Accounting Bulletin No. 101 (SAB 101), as amended by SAB 101(A) and (B), issued by the U. S. Securities and Exchange Commission.

The Company had received cumulative up-front payments of approximately $4,000,000 through April 1, 2000. In accordance with SAB 101, the Company is required to record these fees over the life of the arrangement, which was terminated in the year ended March 31, 2001 (See Note 6). As a result of this change, revenues in the year ended March 31, 2001 have increased by $3,647,059 and the cumulative effect of this change in accounting principle is a charge of $3,647,059 in the year ended March 31, 2001.

5. CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS

At December 31, 2002, cash equivalents included approximately $465,000 of commercial paper with an average interest rate of 1.09%. At December 31, 2001, cash equivalents included approximately $1,690,000 of commercial paper and term deposits with an average interest rate of 2.64%.

6. MAJOR CUSTOMERS AND CONCENTRATION OF CREDIT RISK

In November 2001, the Company entered into a non-exclusive license with Valentis, Inc. to use its MedPulser® System in the development of its Genemedicine™ products. The Company has received an upfront payment in the first quarter of 2002 which is recorded as revenue ratable over the term of the agreement and will receive payments upon the achievements of specified milestones in the form of cash and stock of Valentis as well as a supply agreement between the two companies. The agreement expires in 2018.

By an exclusive license and development agreement dated October 2, 1998, the Company had granted the rights to its drug delivery technology to make, use and sell oncology products as defined in the agreement. The agreement was to expire at the expiration of certain patent rights covering the technology in 2016. Pursuant to the agreement, during the year ended March 31, 2001, and after giving effect to the change in the Company's revenue recognition policy upon adoption of SAB 101, the Company recognized license fee and milestone payments from the licensee in the amount of $3,730,392. Prior to the changes in accounting policy adopted in 2001, the Company recognized fees from this arrangement of $416,667 in fiscal 2000 and $4,500,000 in fiscal 1999. On July 26, 2000, the Company received notice that the licensee had elected to exercise its discretionary right to terminate, without cause, the license agreement. The agreement provided for a termination notice of 180 days; accordingly, the effective termination date was January 22, 2001, at which time the unamortized portion of the up-front license fee was recorded as revenue. All rights previously granted to the licensee were returned to the Company.

7. FIXED ASSETS

	Cost	Accumulated depreciation	Net book value
As at December 31, 2002			
Machinery, equipment and office furniture	**$ 1,525,062**	**$ 1,259,433**	**$ 265,629**
Leasehold improvements	**435,304**	**416,380**	**18,924**
Equipment under capital leases	**119,671**	**108,903**	**10,768**
	$ 2,080,037	**$ 1,784,716**	**$ 295,321**
As at December 31, 2001			
Machinery, equipment and office furniture	$ 1,466,834	$ 982,176	$ 484,658
Leasehold improvements	435,304	389,793	45,511
Equipment under capital leases	200,567	157,107	43,460
	$ 2,102,705	$ 1,529,076	$ 573,629

8. PATENTS AND OTHER ASSETS

	December 31, 2002	December 31, 2001
Patent costs, net	**$ 1,718,807**	$ 1,601,055
License costs, net	**637,723**	750,375
Other	**69,462**	26,444
	$ 2,425,992	$ 2,377,874

Patent costs are net of accumulated amortization of $867,204 at December 31, 2002 [December 31, 2001 — $619,247]. License costs are net of accumulated amortization of $262,727 at December 31, 2002 [December 31, 2001 — $150,075].

The Company has two primary groups of patents (Group 1 and Group 2), which are being amortized over a period of 8 years and 17 years, respectively. The patent balance, net of accumulated amortization, of Group 1 totaled $1,255,022 at December 31, 2002 [December 31, 2001 — $1,090,047]. The patent balance, net of accumulated amortization, of Group 2 totaled $463,785 at December 31, 2002 [December 31, 2001 — $511,008]. License costs, net of accumulated amortization, totaled $637,723 at December 31, 2002 [December 31, 2001 — $750,375] and are being amortized over a period of 8 years.

9. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

	December 31, 2002	December 31, 2001
Trade accounts payable	$ **642,964**	$ 378,388
Accrued compensation	**167,961**	268,053
Accrued legal	**20,000**	19,283
Accrued clinical	**40,568**	78,685
Accrued expenses	**161,446**	9,048
	$ **1,032,939**	$ 753,457

10. SHAREHOLDERS' EQUITY

As a result of the Company's continuation into Delaware [*note 1*] on June 15, 2001, the Company changed its no par value common shares to $0.001 par value common shares. The shareholders' equity for all periods presented has been reclassified to conform to this presentation.

On January 17, 2001, the Company completed a public offering of 6,267,500 common shares at a price of Cdn $1.35 per share for gross proceeds of Cdn $8,461,125 (U.S. $5,640,750) less expenses of Cdn $1,102,877 (U.S. $734,368). The Company has also granted the Agent compensation warrants exercisable until January 16, 2002 to purchase 500,000 common shares, at Cdn $1.35 per common share. The Company has also issued to the Agent 50,000 common shares as compensation for corporate finance services.

Pursuant to a consulting agreement dated June 12, 2001, the Company agreed to issue shares with a value of $55,000 based on the fair market value of the Company's common stock on the completion date of the project in October 2001. As of December 31, 2001 these shares had not been issued and were recorded as common stock issuable. The 100,000 common shares were issued on January 9, 2002.

On September 15, 2000, the Company entered into an exclusive license agreement with the University of South Florida Research Foundation, Inc. ("USF"), whereby USF granted the Company an exclusive, worldwide license to USF's rights in patents and patent applications generally related to needle electrodes ("License Agreement"). These electrodes were jointly developed by the Company and USF. Pursuant to the License Agreement, the Company granted USF and its designees warrants to acquire 600,000 common shares for $2.25 per

share until September 14, 2010. Of the total warrants granted, 300,000 vest at the date of grant and the remainder will vest upon the achievement of certain milestones. The 300,000 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 300,000 warrants are forfeitable and will be valued at the fair value on the date of vesting using the Black-Scholes pricing model.

In addition, pursuant to the above License Agreement, the Company issued a total of 150,000 common shares with a fair market value of $346,500 to USF and its designees for no additional consideration. The fair market value of the common shares on September 15, 2000 was recorded as other assets and a credit to common stock and additional paid-in capital.

Special Warrants

On June 6, 2002, the Company closed a private placement of 10,225,891 special warrants. 7,985,574 special warrants were issued at a subscription price of $0.42 per special warrant and 2,240,317 special warrants were issued at a subscription price of $0.47 per special warrant, for gross proceeds of $4,406,890. Each $0.42 special warrant is exercisable, without additional payment, into one share of common stock and a warrant for the purchase of one-third of one share of common stock. Each full common stock purchase warrant is exercisable for 12 months to purchase a share of common stock at $0.70. Total warrants to purchase 2,661,851 shares of common stock are exercisable at $0.70 per share. These warrants expire on June 6, 2003. Each $0.47 special warrant is exercisable, without additional payment ,into one share of common stock and a warrant for the purchase of forty percent of one share of common stock. Each full common stock purchase warrant is exercisable for 12 months to purchase one share of common stock at $0.65. A total of 896,125 such warrants are issuable and shall expire on June 6, 2003. The gross proceeds of this financing were reduced by issuance costs including the agent's commission of 6.0% of the gross proceeds of $264,413 and other issue costs of $306,708 incurred as of December 31, 2002. In October 2002, these special warrants were converted into 10,225,891 shares of common stock and 3,557,976 common stock purchaser warrants.

In January 2002, the Company reduced the exercise price of the 500,000 Agent's Compensation Warrants from Cdn $1.35 to Cdn $1.10 and extended the expiry date to January 31, 2002. The Company agreed to the extension and the reduction of the exercise price of the warrants to provide the Agent with an incentive to exercise the warrants, as the exercise of the warrants would provide the Company with a fast and inexpensive method of financing to support the research and development of our products and would continue to foster the goodwill between the parties. On January 16, 2002, the Company issued 500,000 common shares in respect of the exercise of these warrants for gross proceeds of Cdn $550,000 (US $337,506).

In connection with the issuance of the special warrants described in the proceeding paragraph, the Company granted warrants to the placement agent to acquire 665,000 shares of common stock for $0.47 per share. These warrants expire on June 6, 2005.

On November 30, 2001, the Company closed a private placement of 5,212,494 special warrants at a price of $0.45 per Special Warrant for gross proceeds of $2,345,622. Each Special Warrant entitles the holder to acquire one common share of the Company and one-half of a non-transferable warrant of the Company, without payment of further consideration, on the exercise or deemed exercise of the Special Warrant. Each full Warrant entitles the holder to purchase one common share at a price of $0.75 through May 30, 2003. The gross proceeds of this financing was reduced by issuance costs including the agent's commission of 7.5% of the gross proceeds of $175,922 and other issue costs of $420,763 incurred as of December 31, 2001. The agent was also granted Agent's Series A Special Warrants entitling the holder to acquire 100,000 common shares of the Company, without payment of further consideration, exercisable on or before November 30, 2002 and Agent's Series B Special Warrants entitling the agent to acquire 521,249 Agent's Share Purchase Warrants. Each Agent's Share Purchase Warrant entitles the holder to acquire one common share of the Company at a price of $0.45 per Agent's Share Purchase Warrant, exercisable through May 30, 2003.

On January 25, 2002, the Company filed a preliminary prospectus in Canada qualifying the common shares and share purchase warrants of the Company. Of the total gross proceeds, 20% ($469,124) was withheld from the Company and placed in an escrow account by the placement agent. In April 2002, the $469,124 was released from

the escrow agent. As of December 31, 2002, the Company recorded proceeds of $1,335,104 from the sale of the 5,212,494 special warrants, net of issuance costs of $1,010,518 incurred as of December 31, 2002.

In November 2001, the Company entered into a note receivable agreement with one of its executive officers in the amount of $65,000, to enable the executive to purchase 144,000 Special Warrants offered through the Company's private placement. The loan plus accrued interest, at an interest rate of 5.0%, is payable on or before November 9, 2004. During 2002, $31,826 was repaid by the executive during 2002.

Stock options

The Company has three stock option plans pursuant to which stock options are granted to executive officers, directors, employees and consultants.

The 1995 stock option plan (the "1995 Plan") was approved by the shareholders in 1995 and subsequently amended in 1997. The 1995 Plan was suspended by the Board of Directors in June 1997 and no further options will be granted pursuant to this plan. As at December 31, 2002, there are 490,500 options outstanding pursuant to the 1995 Plan.

The 1997 stock option plan (the "1997 Plan"), as amended in 1999, was approved by the shareholders in July 1999. The 1997 Plan was suspended by the Board of Directors in July 2000 and no further options will be granted pursuant to this plan. As at December 31, 2002, there are 1,354,775 options outstanding pursuant to the 1997 Plan.

The 2000 Stock Option Plan (the "2000 Plan"), effective July 31, 2000, was approved by the shareholders on August 7, 2000, pursuant to which 7,400,000 common shares are reserved for issuance to executive officers, directors, employees and consultants of the Company. In April 2002, the annual meeting of shareholder approved to amend the 2000 plan to increase the maximum number of common shares reserved for issues to 10,000,000. The 2000 Plan supercedes all previous stock option plans. At December 31, 2002, 4,940,875 options are available for future grants and 5,059,125 stock options are outstanding pursuant to the 2000 Plan. The options available for issuance under the 2000 Plan generally have a term of ten years and vest over a period of three years. The Plan will terminate on July 30, 2010.

The Company accounts for options granted to non-employees in accordance with EITF 96-18 and FAS 123. The fair value of these options at the measurement dates was estimated using the Black-Scholes pricing model.

In January 2002, the Company extended the expiration date of 624,200 consultant stock options from January 15, 2002 to January 31, 2002 and reduced the exercise price from between Cdn $1.25 and Cdn $4.13 to Cdn $1.15. On January 21, 2002, the Company issued 499,199 common shares in respect of the exercise of these stock options for gross proceeds of Cdn $574,079 (US $361,287). As a result, additional stock-based compensation was recorded in January 2002 of $39,936 at a fair value of $0.08 per option which was estimated by using the Black Scholes Pricing Model. The remaining 125,001 stock options expired.

Total stock-based compensation for options granted to non-employees for the year ended December 31, 2002, the nine months ended December 31, 2001 and the year ended March 31, 2001 was $105,413, $160,594 and $226,000, respectively.

The following table summarizes the stock options outstanding at December 31, 2002:

	Options outstanding			Options exercisable	
Range of exercise prices $	Number of options outstanding #	Weighted average remaining contractual life (years)	Weighted average exercise price $	Number of options exercisable #	Weighted average exercise price $
0.18 - 0.55	4,042,625	9.21	0.41	1,602,375	0.43
0.69 - 1.00	204,000	8.36	0.81	170,750	0.83
1.12 - 1.66	1,120,500	5.88	1.34	958,250	1.32
1.69 - 2.52	442,825	3.87	2.18	435,825	2.17
2.55 - 3.75	1,014,950	2.89	2.98	1,014,950	2.98
4.00 - 5.50	79,500	6.94	4.78	60,875	4.77
	6,904,400	7.34	1.12	4,243,025	1.50

Stock option transactions for the periods and the number of stock options outstanding are summarized as follows:

	No. of common shares issuable	Weighted average exercise price
Balance, March 31, 2000	4,515,544	$ 2.63
Options granted	1,537,000	1.43
Options exercised	(111,894)	2.23
Options forfeited	(480,950)	2.56
Balance, March 31, 2001	5,459,700	2.36
Options granted	2,114,000	0.84
Options exercised	(4,250)	1.09
Options forfeited	(1,798,525)	2.11
Balance, December 31, 2001	5,770,925	1.88
Options granted	3,721,200	0.46
Options exercised	(499,199)	0.72
Options forfeited	(2,088,526)	2.13
Balance, December 31, 2002	6,904,400	$ 1.12

Shareholder Rights Plan

In 1997, the shareholders approved the adoption of a Shareholder Rights Plan (the “Rights Plan”) to protect the Company’s shareholders from unfair, abusive or coercive take-over strategies. Under the Rights Plan, holders of common shares are entitled to one share purchase right (“Right”) for each common share held. If any person or group makes a take-over bid, other than a bid permitted under the plan or acquires 20% or more of the Company’s outstanding common shares without complying with the Rights Plan, each Right entitles the registered holder thereof to purchase, in effect, $20 equivalent of common shares of the Company at 50% of the prevailing market price.

11. RESTRUCTURING CHARGES

In October 2001, the Company reorganized its operations to reduce its operating expenses. As a result of the reorganization the Company terminated 16 employees of which 7 had been employed in general and administrative departments, 5 in research and development departments, and 4 in sales and marketing departments. In accordance with the staffing changes and the terms of the termination agreements, the Company has accrued and recorded severance costs and certain benefits amounting to $210,911 for the nine months ended December 31, 2001. $94,165 was included in accounts payable and accrued expenses relating to these reorganization charges at December 31, 2001, all of which has been paid by December 31, 2002.

12. COMMITMENTS

The Company leases its facilities and certain motor vehicles under operating lease agreements which expire up to 2006. The facilities lease agreements require the Company to pay maintenance costs. Rent expense under operating leases was as follows:

	Year ended December 31 2002	Nine months ended December 31 2001	Year ended March 31 2001
Rentals	$ 472,518	$ 376,268	$ 501,949

At December 31, 2002, future minimum lease payments under non-cancelable operating leases are as follows:

	Operating leases
2003	$ 418,898
2004	419,126
2005	35,454
2006	26,712
	$ 900,191

The Company leases certain office equipment under capital lease arrangements. At December 31, 2002, future minimum lease payments under non-cancellable capital leases are as follows:

	Capital leases
2003	$ 22,174
Total minimum lease payments	22,174
Amounts representing interest	1,532
Present value of future minimum lease payments and and current portion of capital lease obligations	$ 20,642

Pursuant to the USF license agreement entered into during the nine months ended December 31, 2001 [note 10], the Company is responsible for payment of royalties, based on a percentage of revenue from the licensed product. As at December 31, 2002 and 2001, no royalties were payable.

13. INCOME TAXES

At December 31, 2002, the Company has U.S. federal and California income tax net operating loss carryforwards of approximately $46.4 million and $10.1 million, respectively. The federal loss carryforwards will begin to expire in 2008 unless previously utilized. The California loss carryforwards will continue to expire in 2004. The difference between the U.S. 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 55% limitation of California loss carryforwards. In addition, the U.S. subsidiary has U.S. federal and California research tax credit carryforwards of approximately $1,050,000 and $500,000, respectively, which will continue to expire in 2003, unless previously utilized.

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%. However, the Company does not believe such limitations will have a material impact upon the utilization of these carryforwards.

Significant components of the Company's deferred tax assets as of December 31, 2002 and December 31 2001 are shown below:

	December 31, 2002	December 31, 2001
Deferred tax assets:		
Capitalized research expense	$ 911,000	$ 1,078,000
Net operating loss carryforwards	16,829,000	14,913,000
Research and development and other tax credits	1,406,000	1,296,000
Other	492,000	369,000
Total deferred tax assets	19,638,000	17,656,000
Valuation allowance	(19,181,000)	(16,909,000)
Total deferred tax assets	457,000	747,000
Deferred tax liabilities:		
Difference between book and tax basis For patent and license costs	(457,000)	(747,000)
Total deferred tax liabilities	$ (457,000)	$ (747,000)
Net deferred tax assets	$ —	$ —

The potential income tax benefits relating to the future tax assets have been recognized in the accounts to the extent their realization meets the requirements of “more likely than not” under the liability method of tax allocation.

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:

	At December 31, 2002	At December 31, 2001
Income taxes at statutory rates	$ (2,088,000)	$ (2,226,000)
State income tax, net of federal benefit	(225,000)	(366,000)
Change in valuation allowance	2,272,000	3,565,000
Other	41,000	(973,000)
	$ —	$ —

14. PENSION PLAN

In 1995, the U.S. subsidiary adopted a 401 (k) Profit Sharing Plan covering substantially all of its employees in the United States. The defined contribution plan allows the employees to contribute a percentage of their compensation each year. The Company currently matches 50% of the employees contribution, up to 6% of annual compensation which is recorded as expense in the accompanying consolidated statements of loss as incurred. The Company’s contributions are invested in common shares of the Company which are included in the calculation of loss per common share for the years presented. The pension expense for the year ended December 31, 2002 was $62,721 [nine months ended December 31, 2001 — $63,963; year ended March 31, 2001 — $60,761].

15. SEGMENTED INFORMATION

The Company’s reportable business segments include the BTX Instrument Division and the Drug and Gene Delivery Division. In connection with the sale of assets of the BTX Instrument Division on January 31, 2003. The BTX Instrument Division, which was previously classified as a separate segment, has been classified discontinued operations for financial reporting purposes.

The accounting policies of BTX Division and Drug and Gene Delivery Division are the same as those described in note 2.

Substantially all of the Company’s assets and operations are located in the United States and predominantly all revenues and expenses are generated, based on the location of origin, in the United States.

16. RELATED PARTY TRANSACTIONS

The payments to related parties include the following:

- legal services provided by a law firm where one of the partners is a director of the Company
- accounting and administration services provided by a company where the principal is a director of the Company

	Year ended December 31 2002	Nine months ended December 31 2001	Year ended March 31 2001
Legal services	$ 337,150	$ 272,034	$ 239,225
Accounting and administration	$ —	$ 588	$ 28,780

Included in accounts payable and accrued expenses are the following amounts owed to the parties identified above which are payable under normal trade terms:

	At December 31 2002	At December 31, 2001
Legal services	$ 56,752	$ 73,820

Total expenses paid to the parties identified above and included in share issue costs for the year ended December 31, 2002 were $221,585 [nine months ended December 31, 2001 — $106,585; year ended March 31, 2001 — $95,263]. All transactions are recorded at their exchange amounts.

17. SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION

	Year ended December 31 2002	Nine months ended March 31 2001	Year ended March 31 2001
Interest paid during the year	$ 5,445	$ 10,742	$ 20,380

During the year ended December 31, 2002, the Company issued common shares pursuant to a consulting agreement [note 10] aggregating $ 55,000.

18. RECLASSIFICATION

Certain reclassifications have been made to the financial statements for the nine months ended December 31, 2001 and year ended March 31, 2001 to conform to the presentation of the 2002 financial statements.

19. GENERALLY ACCEPTED ACCOUNTING PRINCIPLES IN CANADA

The Company prepares its consolidated financial statements in accordance with generally accepted accounting principles in the United States (“U.S. GAAP”). In addition, the Company provides supplementary descriptions of significant differences between U.S. GAAP and those in Canada (“Canadian GAAP”) as follows:

[a] Under Canadian GAAP, the Company grants stock options to executive officers, directors, employees and consultants pursuant to stock option plans as described in note 10. No compensation is recognized for these plans when common shares or stock options are issued. Any consideration received on exercise of stock options or the purchase of stock is credited to share capital. If common shares are repurchased, the excess or deficiency of the consideration paid over the carrying amount of the common shares canceled is charged or credited to additional paid in capital or retained earnings. Under U.S. GAAP, options granted to non-employees such as

consultants are fair valued. In addition, options modified to accelerate vesting provisions are subject to remeasurement at the date of modification. Under Canadian GAAP, the Company does not fair value options granted to non-employees or record expense for options subject to accelerated vesting.

[b] Under Canadian GAAP, the effect of the change in accounting principle described in note 4 is applied retroactively and all prior periods are restated.

[c] Under Canadian GAAP, investments are carried at the lower of cost or market. Unrealized gains are not recognized in the financial statements.

The impact of significant variations between U.S. GAAP and Canadian GAAP on the Consolidated Statements of Loss are as follows:

	Year ended December 31, 2002	Nine months ended December 31, 2001	Year ended March 31, 2001
Loss for the period, U.S. GAAP	$ (5,964,827)	$ (6,359,790)	$ (8,866,355)
Adjustment for stock based compensation	105,413	160,594	226,000
Loss for the period, Canadian GAAP	$ (5,859,414)	$ (6,199,196)	$ (8,640,355)
Basic and diluted loss per common share, Canadian GAAP	$ (0.14)	$ (0.18)	$ (0.31)
Weighted average number of common shares	40,592,831	33,759,404	27,648,854

The impact of significant variations to Canadian GAAP on the Consolidated Balance Sheet items are as follows:

	December 31, 2002	December 31, 2001
Additional paid in capital	$ **54,108,063**	$ 48,200,034
Other accumulated comprehensive loss/ cumulative translation adjustment	$ **(102,238)**	$ (102,238)
Accumulated deficit	$ **(50,297,408)**	$ (44,437,994)

20. SUBSEQUENT EVENTS

On January 21, 2003, the Company entered into a $1,000,000 bridge loan with a major shareholder. Payment of the loan is due on the earlier of March 21, 2003 or upon the completion of the sale of the BTX Instrument Division of the Company. Warrants to purchase 60,000 shares of the Company's common stock at $.01 per share were granted in lieu of interest being charged to the loan. The warrants expire in January 2005. In February 2003, the bridge loan was paid in full with proceeds from the sale of the BTX Instrument Division.

On January 31, 2003, the Company accounted the completion of the sale of substantially all of the properties and assets that are primarily used in its BTX Instrument Division. The Company's stockholders, in a Special Meeting held on January 31, 2003, voted to approve the proposed sale to Harvard Bioscience, Inc. The terms of the sale are $3.7 million in cash, subject to certain adjustments, and royalty on net sales of BTX products above certain sales targets for a period of four years.

Exhibit 3.2

[SEAL]

CERTIFICATE OF AMENDMENT
OF THE CERTIFICATE OF INCORPORATION
OF
GENETRONICS BIOMEDICAL CORPORATION

Pursuant to Section 242 of the General Corporation Law of the State of Delaware, the undersigned, Avtar Dhillon, President and Chief Executive Officer of Genetronics Biomedical Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, DOES HEREBY CERTIFY,

FIRST: That the name of the Corporation is GENETRONICS BIOMEDICAL CORPORATION (hereinafter the "Corporation");

SECOND: The Certificate of Incorporation of the Corporation is hereby amended by striking out Article 4 thereof and by substituting in lieu of said Article the following new Article 4:

"ARTICLE 4 – AUTHORIZED CAPITAL:

The Corporation is authorized to issue two classes of shares designated, respectively, "Preferred Stock" and "Common Stock". The total number of shares of Preferred Stock the Corporation shall have authority to issue is 10,000,000, $0.001 par value per share, and the total number of shares of Common Stock the Corporation shall have authority to issue is 300,000,000, $0.001 par value per share. The shares of Preferred Stock shall initially be undesignated as to series.

The Board of Directors is hereby authorized, within the limitations and restrictions stated herein, to determine or alter the rights, preferences, privileges and restrictions granted to or imposed upon a wholly unissued series of Preferred Stock, and the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but, in respect of decreases, not below the number of shares of such series then outstanding. In case the number of shares of any series should be so decreased, the shares constituting such decrease shall resume the status which they had prior

to the adoption of the resolutions originally fixing the number of shares of such series.

THIRD: That said amendment was duly adopted, in accordance with the provisions of Section 242 of the General Corporation law of the State of Delaware.

IN WITNESS WHEREOF, said Board of Directors of Genetronics Biomedical Corporation have caused this Certificate to be signed by its Chief Executive Officer and President, Avtar Dhillon, and attested by Peter Kies, its Chief Financial Officer, this 21 day of November, 2002.

GENETRONICS BIOMEDICAL CORPORATION

By:/s/ Avtar Dhillon
Avtar Dhillon
Chief Executive Officer and President

Attest:

By: /s/ Peter Kies
Peter Kies
Chief Financial Officer

Exhibit 23.1

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Forms S-8 Nos. 333-100077, 333-86377 and 333-58168, Forms S-3 Nos. 333-91538, 333-76738, 333-55786 and 333-88427 and Form S-4 No. 333-56978) of Genetronics Biomedical Corporation, of our report dated February 7, 2003, with respect to the consolidated financial statements of Genetronics Biomedical Corporation included in the Annual Report (Form 10-K) for the year ended December 31, 2002.

/s/ ERNST & YOUNG LLP

San Diego, California
March 25, 2003

Exhibit 23.2

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements (Forms S-8 Nos. 333-100077, 333-86377 and 333-58168, Forms S-3 Nos. 333-91538, 333-76738, 333-55786 and 333-88427 and Form S-4 No. 333-56978) of Genetronics Biomedical Corporation, of our report dated May 4, 2001 (except as to notes 1 and 11 which are as of December 19, 2001), with respect to the consolidated financial statements of Genetronics Biomedical Corporation included in the Annual Report (Form 10-K) for the year ended December 31, 2002.

/s/ ERNST & YOUNG LLP

Vancouver, Canada
March 25, 2003

Exhibit 99.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTEDPURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

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

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

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

/S/ Avtar Dhillon
Avtar Dhillon
President and Chief Executive Officer
(Principal Executive Officer)
March 28, 2003

/S/ PETER KIES
Peter Kies
Chief Financial Officer
(Principal Financial and Accounting Officer)
March 28, 2003