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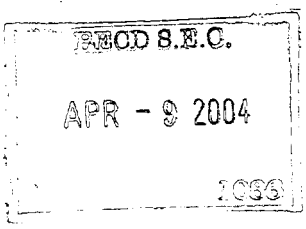

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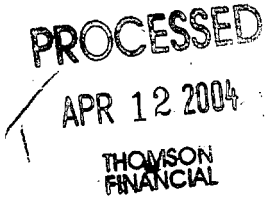


Targeted Genetics / 2003 / Annual Report

CORP

Cystic Fibrosis

Focus	Recent Achievements	Future Objectives
ADDRESS UNDERLYING GENETIC DEFECT CAUSING DISEASE	PRESENTED AND PUBLISHED POSITIVE PHASE II CLINICAL RESULTS FORMED COLLABORATION WITH CF FOUNDATION AND INITIATED PHASE IIB CLINICAL TRIAL	COMPLETE PHASE IIB PATIENT ENROLLMENT

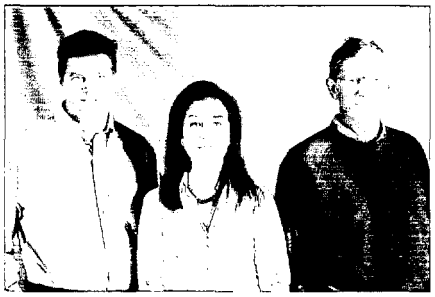
AIDS Vaccine

Focus	Recent Achievements	Future Objectives
DEVELOP A PREVENTATIVE AIDS VACCINE	PRESENTED FINAL PRECLINICAL DATA SUPPORTING CLINICAL TRIAL INITIATION INITIATED PHASE I TRIAL EXTENDED COLLABORATION WITH IAVI/CCRI THROUGH 2006	COMPLETE PHASE I DOSE ESCALATION PATIENT ENROLLMENT

Rheumatoid Arthritis

Focus	Recent Achievements	Future Objectives
DEVELOP A LOCALLY ADMINISTERED TNF-α INHIBITOR	PRESENTED FINAL PRECLINICAL DATA SUPPORTING CLINICAL TRIAL INITIATION INITIATED PHASE I TRIAL	COMPLETE PATIENT ENROLLMENT

Dear Fellow Shareholders



Key executives left: Todd E. Simpson, CFO; H. Stewart Parker, President & CEO; Barrie J. Carter, Ph.D., Chief Scientific Officer

Targeted Genetics is a company with diverse technologies and broad potential for the development of novel therapies to treat serious diseases. In 2003 the challenge we set for ourselves was to focus on those programs within our portfolio that we believe have the greatest potential for near-term success. Every member of the Targeted Genetics team worked hard to enable us to execute on a strategic plan set forth at the beginning of the year. I am pleased to share with you our progress in 2003 and our vision for the future.

At the start of 2003 we implemented a strategic plan designed to focus our development efforts and financial resources on advancing three key programs: tgAAVCF for the treatment of cystic fibrosis, tgAAC09 to prevent AIDS and tgAAC94 for the treatment of rheumatoid arthritis. The other key objective of our plan was to secure additional financial resources to fund the development of these programs. We met our objectives in each program area and in our corporate development activities.

Our most advanced product candidate is tgAAVCF for the treatment of cystic fibrosis (CF). tgAAVCF uses our adeno-associated virus (AAV) vector system to deliver a functional copy of the gene that is deficient in CF patients, and is designed to address the underlying cause of this genetic disease. In April 2003 we announced a collaboration with the Cystic Fibrosis Foundation to advance the development of tgAAVCF. The focus of the collaboration is to conduct a 100-patient Phase IIb clinical trial to evaluate the efficacy of tgAAVCF in patients with mild to moderate CF. The CF Foundation is providing $1.7 million to cover the external costs of this study, which was initiated in July 2003.

The Phase IIb trial of tgAAVCF, the largest and most advanced trial of an AAV-based product candidate ever conducted, is being undertaken based on the promising results of a Phase II study that was completed in 2002. The results of the completed study were presented at the American Society of Gene Therapy (ASGT) annual meeting in June 2003. In this Phase II study, we demonstrated a clean safety profile and a statistically significant improvement in lung function 30 days after treatment with tgAAVCF. The Phase IIb study is designed to confirm this observation in a larger population of CF patients.

We made significant progress in the development of tgAAC09, our first AAV-based vaccine candidate. tgAAC09 is the subject of a collaboration among Targeted Genetics, the International AIDS Vaccine Initiative (IAVI) and Columbus Children's Research Institute (CCRI) at Children's Hospital in Columbus, Ohio. In March 2003 we extended the original three-year collaboration to support regulatory filings, initiation of a Phase I clinical trial and other milestones, and we have now extended this collaboration through the end of 2006.

Promising tgAAC09 preclinical data were presented at ASGT and supported advancing this product candidate into a Phase I trial, which was initiated in December 2003. This study will evaluate the safety and immune-stimulating potential of tgAAC09 in healthy volunteers. Targeted Genetics' vaccine is unique in that it may elicit a dual immune response important in preventing disease, and utilizes a single-shot vaccine approach, which is ideal for developing nations. We are very excited about the potential of tgAAC09 to have a positive impact on the global HIV/AIDS pandemic and also look forward to leveraging the

knowledge we gain through its development into opportunities for other AAV-based vaccines.

Throughout 2003 we completed the preclinical studies of tgAAC94 to support regulatory filings and initiate clinical trials. Data from these studies were presented at ASGT, and demonstrated that use of tgAAC94 resulted in a significant reduction in ankle and hind paw swelling as well as a clean safety profile. tgAAC94 uses an AAV vector to deliver a DNA sequence encoding a potent inhibitor of tumor necrosis factor-α (TNF-α) directly into affected joints in patients with rheumatoid arthritis. Several anti-TNF-α therapies already are approved and show clinical and commercial success. Rheumatologists, however, still believe that about 25 to 40 percent of people with RA still suffer from pain in one or more joints, despite currently available therapies. We believe tgAAC94 may have potential therapeutic benefit in this patient category. In the future, we also will consider additional disease targets for tgAAC94, where local expression of a TNF-α inhibitor may have a therapeutic benefit.

We are very excited about the opportunity that tgAAC94 presents as a product candidate that is complementary to existing or novel protein therapies. In January 2004, we received regulatory approval from the U.S. Food & Drug Administration (FDA) and Health Canada to initiate a Phase I clinical trial, and we initiated the study in March.

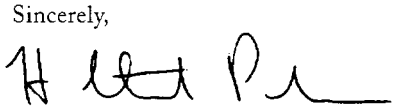
Our success in meeting our program development objectives helped us to achieve our corporate development goals. There is significant enthusiasm within the CF community for tgAAVCF, and data from our earlier Phase II study was key to establishing a collaboration with the CF Foundation to provide us with the funding to advance the clinical development of this promising AAV-based CF therapy while reducing our expenditures related to this program. Similarly, the preclinical data for tgAAC09 that we generated with our collaborators at CCRI resulted in the March 2003 extension of the IAVI/CCRI collaboration. This extension provided us with financial support that enabled us to complete our regulatory filing and initiate a clinical development program for this innovative vaccine candidate. The ongoing success of the program led to a three-year extension of the collaboration, which we announced at the beginning of 2004. This extension provides funding in 2004 of up to $10.7 million to support manufacturing of tgAAC09 for the Phase I clinical trial and preclinical studies to evaluate the utility of various HIV antigens in a multi-component AIDS vaccine.

Our presentations of data at ASGT generated renewed interest in our company among investors. Coupled with a resurgence in the biotechnology equity market, this enthusiasm for our programs and technology enabled us to raise $17.5 million through a public offering of our stock in June 2003. In February 2004 we were able to raise an additional $25.5 million in the equity markets, enhancing our financial resources and providing the capital we need to continue advancing our development programs. Throughout 2003 we took several other steps to strengthen our financial position, including a $4.8 million equity investment under our research and development agreement with Biogen, Inc. (now Biogen IDEC); converting $9.4 million in outstanding convertible debt, which was held by Elan Corporation, plc under a collaborative agreement established in 1999, into equity; and entering into a contract manufacturing agreement with Genvec, Inc.

Our contract manufacturing agreement with Genvec demonstrated our ability to leverage our expertise in biologics manufacturing and our existing manufacturing infrastructure, including our Regulatory Affairs and Quality expertise, to provide contract manufacturing services to other companies at times when we are not utilizing our manufacturing capacity for our own needs. We believe that this approach will enable us to derive near-term revenue from our state-of-the-art manufacturing facilities as we continue to develop our promising product pipeline.

The steps that we took in the laboratory, the clinic and in the business during 2003 provide us with tremendous opportunities for success in the year ahead and the resources to achieve our goals. Already in 2004 we have expanded our IAVI/CCRI collaboration, raised $25.5 million in the public equity market and initiated clinical development of tgAAC94. Over the next 18 months our main objective is to complete current clinical trials in our three core development programs while we remain opportunistic about seeking out and evaluating additional opportunities for partnerships, out-licensing and strategic transactions. We will continue to focus on realizing the potential of our programs and technology, striving to create value — for patients, for our company and for you, our shareholders.

Sincerely,



H. Stewart Parker
President and Chief Executive Officer

Program Overview

For more than a decade Targeted Genetics has been at the forefront of innovation in the development of multiple gene delivery systems and novel gene-based therapies for serious diseases. We believe that gene-based therapies will become a therapeutic class that will find important use as a new weapon in the war against disease, and we are committed to realizing the clinical and commercial potential of our gene delivery technologies. As part of that commitment, we have focused many of our resources on, and gained significant expertise in, the preclinical development, clinical and regulatory affairs and manufacturing of our innovative gene-based product candidates. In parallel with these efforts, we have amassed a large portfolio of intellectual property covering various aspects of our technologies and product development programs. Our current product development efforts are focused in the areas of cystic fibrosis, AIDS prophylaxis and rheumatoid arthritis.

Cystic Fibrosis Program

Cystic fibrosis (CF) is a genetic disease that results from a lack of function of the cystic fibrosis transmembrane regulator (CFTR) gene. Despite advances in treating the symptoms of the disease, the median age of survival for CF patients is in the early thirties. Lung function in patients with CF declines at an average rate of about 2 percent per year, ultimately resulting in lung failure and death. There is a clear, unmet need for new therapies that address the root cause of the disease and reduce or eliminate the progressive decline in lung function. Approximately 60,000 people worldwide have CF, including 30,000 individuals in the United States.

Targeted Genetics' program to treat the underlying cause of CF is the most advanced CF gene therapy program under development. Our product candidate for the treatment of CF, tgAAVCF, uses an AAV vector to deliver the DNA sequence encoding CFTR to cells within the lung. tgAAVCF is designed to deliver the CFTR gene sequence into the cell where it directs the production of the CFTR protein. This protein inserts into the cell membrane where it functions as a chloride channel and helps to normalize the flow of water and chloride ions. Targeted Genetics believes that tgAAVCF may be able to restore sufficient chloride channel function to reduce or eliminate the cycle of inflammatory events that lead to progressive lung failure. Data from a Phase II clinical trial completed in 2003 demonstrated a statistically significant improvement in a key measure of lung function 30 days after administration of tgAAVCF compared with placebo. A number of patients receiving tgAAVCF in this study experienced a sustained improvement in lung function throughout the course of the study that was not observed in patients receiving placebo.

These promising data are the first to show that gene transfer of CFTR can produce significant improvement in the lung function of CF patients. Along with a good safety profile, these data provide the foundation upon which to examine the impact of tgAAVCF on lung function in a larger group of patients. In June 2003, in collaboration with the CF Foundation, we initiated a Phase IIb study that is designed to enroll up to 100 patients with mild-to-moderate CF. The study will assess the safety and impact on lung function, inflammation and changes in biologic markers from repeated doses of tgAAVCF compared with placebo. The CF Foundation is providing funding to cover the external costs associated with this trial. Our 2004 objective for this study is to complete patient enrollment and dosing by year-end.

AIDS Vaccine Program

In 2003 alone, 3 million people died of AIDS. More than 40 million people around the world are now living with HIV infection, and HIV/AIDS is one of the greatest medical, economic and social challenges in many parts of the developing world. More than 70 percent of the population in sub-Saharan Africa is living with HIV/AIDS, and it is estimated that 45 million people in the developing world will become infected in less than a decade. In collaboration with IAVI and CCRI, we are developing a vaccine capable of preventing the onset of AIDS. In keeping with IAVI's mission of addressing the HIV/AIDS pandemic in the developing world, the collaboration is focused on development of a vaccine that is not only safe and effective but also can be manufactured and administered in a simple and cost-effective manner.

A key challenge to developing an effective prophylactic AIDS vaccine has been to identify an approach capable of stimulating both B-cells and T-cells of the immune system. B-cells secrete antibodies that help to block viral infection, while T-cells help to eliminate cells that have become infected. tgAAC09 is a recombinant vaccine candidate that uses an AAV vector to deliver select genes from HIV. Preclinical studies of AAV-based vaccines against SIV, a virus that infects monkeys and is similar to HIV, have generated very promising data. In addition to a clean safety profile, these vaccines have induced robust and durable B-cell and T-cell responses following vaccination, reduced the amount of virus present in the blood after vaccinated animals have been challenged with infectious SIV and increased long-term survival for animals challenged with SIV infection after a single inoculation with the vaccine.

Based on the strength of these preclinical data, we initiated a Phase I clinical trial of tgAAC09 in late 2003. This trial is being conducted in healthy volunteers and is designed to evaluate the safety of tgAAC09 as well as the ability of the vaccine candidate to stimulate an immune response. The randomized, double-blind, placebo-controlled, dose escalation study will evaluate three escalating doses of tgAAC09 in up to 50 subjects. The costs of the clinical trial, manufacturing of tgAAC09 for the trial and preclinical studies of additional vaccine candidates are funded by IAVI. In 2004, we intend to complete enrollment in the dose-escalation portion of the Phase I study.

Rheumatoid Arthritis Program

More than 2 million people in the United States alone are living with rheumatoid arthritis (RA). RA is an autoimmune disorder in which the immune system inappropriately attacks normal tissue in the joints. This leads to painful swelling, loss of mobility in the joint and the destruction of joint tissue over time. Over the past decade, advances in drug discovery and development have identified tumor necrosis factor alpha (TNF-α) as a key mediator of disease-related inflammation and tissue damage. Several systemically administered TNF-α inhibitors have been approved for the treatment of inflammatory autoimmune diseases. These therapies have proven to be successful and are projected to garner revenues in excess of $7 billion by 2011. Although anti-TNF therapies have significantly improved the lives of many patients with RA, approximately 25 to 40 percent of patients treated with anti-TNF therapies do not achieve total resolution of their RA symptoms. We are using our gene delivery technologies to develop an anti-TNF therapy that can be locally administered and targeted to joints with persistent arthritic symptoms. Our product candidate, tgAAC94, utilizes our AAV vector technology to deliver the DNA sequence encoding a potent inhibitor of TNF-α known as TNFR:Fc, and is formulated for direct injection into affected joints.

Preclinical studies in a rat model of arthritis demonstrated that direct injection of AAV vectors containing the TNFR:Fc gene into an affected joint improved a number of disease parameters. These improvements include a reduction in arthritis severity, circulating TNF-α levels and levels of other inflammatory cytokine molecules within the treated joint; the prevention of cartilage and bone degradation; and positive effects in the treated joint as well as in other non-injected joints in the same animal.

Based on these promising data, Targeted Genetics initiated a Phase I clinical trial of tgAAC94 in March 2004. The double-blind, placebo-controlled, dose escalation trial is designed to assess the safety of tgAAC94 injection into a single joint of patients with RA. Secondary endpoints of the study include the presence of TNFR:Fc protein in serum and other symptoms of disease, such as swelling and tenderness in injected joints. We intend to complete patient enrollment and dosing in this study in the first quarter of 2005.

FORM 10-K

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, 2003
OR
☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to
Commission File Number No. 0-23930

TARGETED GENETICS CORPORATION
(Exact name of Registrant as specified in its charter)

Washington	**91-1549568**
(State of Incorporation)	**(IRS Employer Identification No.)**

1100 Olive Way, Suite 100
Seattle, WA 98101
(Address of principal executive offices, including, zip code)

(206) 623-7612
(Registrant's telephone number, including area code)

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

None

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

Common Stock, $0.01 Par Value

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

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

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

The aggregate market value of common stock held by non-affiliates of the Registrant as of June 30, 2003 was approximately $81 million based on the closing price of $1.82 per share of the Registrant's common stock as listed on the NASDAQ SmallCap Market.

Indicate the number of shares outstanding of each of the Registrant's classes of common stock as of March 1, 2004

Title of Class	**Number of shares**
Common Stock, $0.01 par value	77,244,183

DOCUMENTS INCORPORATED BY REFERENCE

(1) The information required by Part III of this report, to the extent not set forth in this report, is incorporated by reference from the Proxy Statement for the Annual Meeting of Shareholders to be held on May 20, 2004. The definitive proxy statement will be filed with the Securities and Exchange Commission within 120 days after December 31, 2003, the end of the fiscal year to which this report relates.

TARGETED GENETICS CORPORATION
ANNUAL REPORT ON FORM 10-K

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PART I

Item 1. Business

This annual report on Form 10-K contains forward-looking statements that involve risks and uncertainties. Forward-looking statements include statements about our product development and commercialization goals and expectations, potential market opportunities, our plans for and anticipated results of our clinical development activities and the potential advantage of our product candidates, and other statements that are not historical facts. Words such as "may," "will," "believes," "estimates," "expects," "anticipates," "plans," "intends," or statements concerning "potential" or "opportunity" and other words of similar meaning or the negative thereof may identify forward-looking statements, but the absence of these words does not mean that the statement is not forward-looking. In making these statements, we rely on a number of assumptions and make predictions about the future. Our actual results could differ materially from those stated in or implied by forward-looking statements for a number of reasons, including the risks described in the section entitled "Factors Affecting Our Operating Results, Our Business and Our Stock Price" in Part II, Item 7 of this annual report.

You should not unduly rely on these forward-looking statements, which speak only as of the date of this annual report. We undertake no obligation to publicly revise any forward-looking statement after the date of this annual report to reflect circumstances or events occurring after the date of this annual report or to conform the statement to actual results or changes in our expectations. You should, however, review the factors, risks and other information we provide in the reports we file from time to time with the Securities and Exchange Commission, or SEC.

Business Overview

Targeted Genetics Corporation develops gene therapy products and technologies for treating both acquired and inherited diseases. Our gene therapy product candidates are designed to treat disease by regulating cellular function at a genetic level. This involves introducing genetic material into target cells and activating the inserted gene in a manner that provides the desired effect. We have assembled a broad base of proprietary intellectual property that we believe gives us the potential to address the significant diseases that are the primary focus of our business. Our proprietary intellectual property includes genes, methods of transferring genes into cells, processes to manufacture our gene delivery product candidates and other proprietary technologies and processes. In addition, we have established expertise and development capabilities focused in the areas of preclinical research and biology, manufacturing and manufacturing process scale-up, quality control, quality assurance, regulatory affairs and clinical trial design and implementation. We believe that our focus and expertise will enable us to develop products based on our proprietary intellectual property.

Gene therapy products involve the use of delivery vehicles, called vectors, to place genetic material into target cells. Our proprietary vector technologies include both viral and synthetic vectors. Our viral vector development activities, which use modified viruses to deliver genes into cells, focus primarily on adeno-associated virus, or AAV, a common human virus that has not been associated with any human disease or illness. We believe that AAV provides a number of safety and gene delivery advantages over other viruses for several of our potential gene therapy products. Our synthetic vectors deliver genes into cells using lipids, which are fatty, water-insoluble organic substances that can promote gene uptake through cell membranes. We believe that synthetic vectors may provide a number of gene delivery advantages for repeated, efficient delivery of therapeutic genes into rapidly dividing cells, such as certain types of tumor cells. Although our current product development candidates utilize AAV as the delivery vector, we believe that possessing capabilities in both viral and synthetic approaches provides advantages in our corporate partnering efforts and increases the range of our potential products that may reach the market.

We have an AAV-based product candidate under development for treating cystic fibrosis that has been evaluated in a Phase II clinical trial. In June 2003, final data from this repeat dosing trial was presented that indicated that our cystic fibrosis product candidate met safety and tolerability targets. In addition, final data from the

Phase II trial indicated a statistically significant improvement in lung function and a decrease in levels of an inflammatory cytokine. In July 2003, we initiated a larger confirmatory Phase IIb clinical trial for this cystic fibrosis product candidate. We designed this trial to enroll up to 100 patients and are conducting it in collaboration with the Cystic Fibrosis Foundation, or CF Foundation. We expect to complete patient accrual and dosing by the end of 2004.

We are developing an AAV-based vaccine product candidate for high-risk populations to protect against the progression of Human Immunodeficiency Virus, or HIV, infection to Acquired Immune Deficiency Syndrome, or AIDS, in partnership with the International AIDS Vaccine Initiative, or IAVI, a non-profit organization and The Children's Research Institute, or CRI, at Children's Hospital in Columbus, Ohio. In December 2003, we initiated a Phase I initial dose escalation safety study in humans for our AIDS vaccine product candidate in Europe. This dose-escalation safety trial is designed to enroll up to 50 volunteers who are uninfected with HIV and in good health. Each participant in this study will receive a single injection of the vaccine candidate and they will be monitored for safety and immune response. We expect to complete the dose-escalation phase of this study by the end of 2004.

We are also developing an AAV-based product candidate for the treatment of rheumatoid arthritis. In June 2003, we announced preclinical results that support the initiation of clinical trials. In January 2004, we received regulatory approval from the U.S. Food and Drug Administration, or FDA, and Health Canada to begin a Phase I clinical trial and we plan to dose the first patient during the first quarter of 2004. This dose-escalation safety trial is designed to enroll up to 32 patients with rheumatoid arthritis and will be conducted in up to eight sites in the United States and Canada. Patients will be monitored for safety and secondarily for improvements in arthritis signs and symptoms. We expect to complete patient accrual and dosing in this study by the first quarter of 2005. We also have additional product candidates focused on treating cancer and hemophilia; however, we have suspended further development of these programs until we can find other sources of funding for the programs.

We believe that our successes in assembling a broad platform of proprietary intellectual property for developing and manufacturing potential products support our potential to develop and manufacture gene therapy product candidates to treat a range of diseases. We have developed processes to manufacture our potential products using methods and at a scale amenable to clinical development and expandable to large-scale production for advancing our potential products to clinical evaluation and commercialization. These methods are similar to the methods used to manufacture other biologics. As a result, we evaluated and continue to evaluate opportunities to utilize excess capacity to manufacture biologics for other companies. In March 2003, we entered into a manufacturing services agreement with GenVec, Inc., or GenVec, to conduct initial feasibility studies to evaluate our ability to manufacture clinical supply of GenVec's cancer product candidate, TNFerade™, an adeno-viral-based gene therapy product. In October 2003, we successfully completed this feasibility study and began manufacturing TNFerade™ for clinical use. In January 2004, we completed our manufacturing work for GenVec.

A wide range of diseases potentially may be treated, or prevented, with gene-based products, including cancer, genetic diseases and infectious diseases. We believe that there is also a significant opportunity to treat diseases currently treated using recombinant DNA proteins and monoclonal antibodies or small molecules that may be more effectively treated by gene-based therapies due to their ability to provide a long-term or a localized method of treatment. Our business strategy is to develop multiple gene delivery systems, which we believe will maximize our product opportunities. Using these gene delivery systems, we are developing product candidates across multiple diseases with the belief that gene-based therapies may provide a means to treat diseases not fully treatable with current biologic and pharmaceutical drugs. We believe that, if successful, we can establish significant market potential for our product candidates. There are no commercially available gene therapy products in the United States. We intend to pursue product development programs to enable us to demonstrate proof of concept and eventually commercialize gene-based therapeutics to address currently unmet medical needs in treating disease.

The development of pharmaceutical products involves extensive preclinical development followed by human clinical trials that take several years or more to complete. The length of time required to completely develop any product candidate varies substantially according to the type, complexity and novelty of the product candidate; the degree of involvement by a development partner; and the intended use of the product candidate. Our commencement and rate of completion of clinical trials may vary or be delayed for many reasons, including those discussed in the

section entitled "Factors Affecting Our Operating Results, Our Business and Our Stock Price" in Item 7 of this annual report.

Our business strategy includes:

Multiple gene delivery systems to maximize product opportunities. Our experience indicates that different disease targets will require different methods of gene delivery. The best gene delivery method for a particular disease will depend on the gene to be delivered, the type of cell to be modified, the duration of gene expression desired and the need for *in vivo* (inside the body) or *ex vivo* (outside the body) delivery. Our primary viral vector development activities focus on AAV vectors, which we and others have shown to be efficient in transferring genes to a wide variety of target cells. Because AAV vectors can deliver genes in a way that allows for expression of genetic information for long periods of time, we believe that these vectors may have particular utility in treating chronic diseases, such as cystic fibrosis, hemophilia and arthritis, which require long-term expression of the gene that is delivered to the cell. Additionally, the efficient gene transfer and the robust and durable expression profile of AAV vectors may support the development of vaccines capable of conferring protection against a number of infectious diseases. Our synthetic vectors deliver genes using lipids. Lipid-based vectors may have advantages in certain applications, such as some types of cancer, in which insertion of genetic material into rapidly dividing cells and shorter-term gene expression may be desired. We believe that using both types of vectors gives us one of the broadest gene delivery technology platforms in the field, and ultimately will give us the flexibility to develop products addressing a much broader range of diseases than we could develop using any single gene delivery system. We also have rights to certain intellectual property relating to adenoviruses, which can also be used to deliver genes into cells.

Significant manufacturing facilities and expertise. We have an established manufacturing facility that complies with current Good Manufacturing Practices. Our proprietary manufacturing process for our AAV-based products utilizes processes, operations and equipment common to the biopharmaceutical industry. These processes, operations and equipment are broadly applicable to the production of viral vectors for gene therapy as well as recombinant proteins and monoclonal antibodies. Although we do not anticipate having any excess manufacturing capacity in 2004, when we do have excess capacity we may seek to generate additional revenue by providing contract manufacturing services to other companies such as our manufacturing relationship with GenVec to produce TNFerade™.

Broad intellectual property portfolio. To date, we have filed or exclusively licensed over 400 patent or patent applications with the United States Patent and Trademark Office, or USPTO, including foreign counterparts of some of these applications in Europe, Japan and other countries. Of these patent applications, over 100 patents have been issued or allowed. This proprietary intellectual property includes genes, formulations, methods of transferring genes into cells, processes to manufacture and purify our gene delivery product candidates and other proprietary technologies and processes.

Diverse product development pipeline. We have multiple product development programs in various stages of preclinical or clinical development. Each of these product candidates addresses a market where we believe that there is significant medical need for new or improved therapies. We are currently focusing our resources on three of these programs: a treatment for cystic fibrosis, a vaccine to protect against the progression of HIV infection to AIDS and a treatment for rheumatoid arthritis. We have significant regulatory expertise in both viral and non-viral gene therapy products with the FDA and other foreign regulatory bodies. We have generated proof of concept data for the use of gene therapy in treating other diseases, including hemophilia, ovarian cancer and head and neck cancer. We are not pursuing development of these programs at this time unless or until we have alternative sources of funding for these programs.

We are currently focused on the development of our cystic fibrosis, AIDS vaccine and rheumatoid arthritis programs. Our products candidates are in the following stages of development:

		Development Status					
Product Candidate	Indication	Research & Preclinical	Phase I	Phase II	Phase III	Gene	Delivery System
Programs Under Active Development:							
tgAAVCF	Cystic Fibrosis					CFTR	AAV
tgAAC09	AIDS					HIV	AAV
tgAAC94	Rheumatoid Arthritis					TNFR:Fc	AAV
_____	Hyperlipidemia					VLDLR	AAV
Programs Not Under Active Development:							
tgDCC-E1A	Head & Neck Cancer					E1A	DCC
tgDCC-E1A	Ovarian Cancer					E1A	DCC
tgLPD-E1A	Metastatic Cancer					E1A	LPD
AAV-FVIII	Hemophilia A					F-VIII	AAV
AAV-FIX	Hemophilia B					F-IX	AAV
Programs Developed by a Third Party:							
_____	Glioma					IFNβ	Adeno-Virus

Programs Under Active Development

tgAAVCF for Cystic Fibrosis

Cystic fibrosis is one of the most common single-gene deficiencies particularly affecting the Caucasian population, afflicting approximately 30,000 people in the United States and 60,000 people worldwide. The disease is caused by a defective cystic fibrosis transmembrane regulator, or CFTR gene, which interferes with normal lung function and results in a buildup of mucus in the lungs, leading to chronic infections, scarring of the lung, loss of lung function and early patient death. Current treatments for cystic fibrosis relieve the symptoms of the disease, but do not cure the underlying genetic defect that causes the disease or stop its progression.

tgAAVCF, our cystic fibrosis product candidate, is comprised of a DNA sequence, or gene, that codes for a functional CFTR protein delivered in an AAV vector. The objective of this gene therapy is to deliver the CFTR gene to cells of the lung, which can then produce the protein that is missing in cystic fibrosis patients. Based on our research and development activities to date, we believe that tgAAVCF may be superior to other gene therapies for treating cystic fibrosis, because the drug appears to have a good safety profile and an ability to deliver the CFTR gene to the airway cells in the lung and support production of the missing protein over an extended period. tgAAVCF has been granted orphan drug status by the FDA, which provides for seven years of market exclusivity and certain tax credits.

In June 2003, we announced the final results of a Phase II clinical trial to explore the safety and clinical impact of repeated doses of aerosolized tgAAVCF delivered to the lungs of cystic fibrosis patients. These final results indicated that tgAAVCF met its primary endpoint demonstrating safety and tolerability in this first-ever repeat dosing study for an AAV-gene therapy product to treat cystic fibrosis. In this trial, which was a randomized, double-blind, placebo-controlled clinical trial that included 37 patients with mild cystic fibrosis, patients received treatment at days 0, 30 and 60 of the trial. The results suggested that the aerosolized product, administered via nebulizer to the lung, was safe and well tolerated by patients. Following approvals from an independent data safety monitoring board, the entry criteria for patients included in the clinical trial was reduced successively from 18 years old to 15 years old to 12 years old. No clinically significant differences in adverse events or laboratory safety

parameters between placebo and tgAAVCF-treated patients were observed. Patients were also monitored at regular intervals for overall lung function using FEV1, a standard measure of lung function, from two weeks before initial dosing through day 150 of the trial. Aggregate patient data from patients receiving tgAAVCF showed a statistically significant improvement in FEV1 lung function at 30 days after treatment compared to patients receiving placebo. Levels of IL-8, a cytokine associated with inflammation, were lower in tgAAVCF-treated patients at 14 days after treatment compared to patients in the placebo group. Excellent gene transfer was also observed in all patients tested, as measured by DNA polymerase chain reaction, a method for amplifying a specific AAV-CFTR DNA sequence, on cells removed from the lung. Gene expression was not observed within the level of detection by the assays used to measure gene expression and AAV-neutralizing antibody response occurred systemically and locally. There was no apparent correlation between the clinical response that patients receiving tgAAVCF experienced with the presence, or levels, of neutralizing antibodies to AAV. In a subset analysis of results from this study, we observed that 22% of the patients receiving tgAAVCF in this trial experienced a 5% or greater sustained improvement in lung function over the 90-day course of treatment. Similar results were not observed in patients receiving placebo in the trial.

In July 2003, we initiated a larger confirmatory Phase II clinical trial for this cystic fibrosis product candidate. This Phase IIb, double-blind, randomized, placebo-controlled study, is being conducted through the CF Foundation and its Therapeutics Development Network and will include bi-monthly evaluation of changes in lung function after repeat dosing of tgAAVCF. We will also assess the impact of tgAAVCF on inflammation and biologic markers over time when compared to placebo. The study will continue to monitor the safety and tolerability profile of the product candidate. A total of 100 patients, 12 years of age and older, will be evaluated, 50 in the treatment group and 50 in the placebo group. Study participants will receive two doses of 10^{13} DNAse resistant particles of tgAAVCF delivered via a nebulizer at day 0 and day 30 of the study and will be evaluated for a total of 90 days. Study participants will be monitored for safety for seven months after the last dose. We expect to complete patient enrollment and dosing in this study by the end of 2004. An interim analysis is scheduled after 50 patients have been treated in the study to determine whether the study will be continued or terminated. If it is apparent, statistically, that significant differences between placebo and treated groups upon full patient enrollment cannot be reached then the study will be terminated.

AIDS Vaccine

According to IAVI, more than 40 million people worldwide suffer from AIDS or are infected with HIV. Approximately 5 million men, women and children worldwide were newly infected with HIV in 2003. More than 30 million people have died from AIDS, which now kills more people worldwide than any other infectious disease. While current drug therapies such as protease inhibitors and reverse transcriptase inhibitors have helped many patients with AIDS to manage their disease, these therapies have not been shown to be curative, have significant and often treatment-limiting side effects and are costly. We believe that a vaccine to protect against the progression of HIV infection to AIDS could have significant market potential. To date, no company has applied for regulatory approval of a prophylactic AIDS vaccine, although several vaccines are under clinical development.

We are collaborating with IAVI and CRI to develop a vaccine to protect against the progression of HIV to AIDS. The vaccine will utilize our AAV vectors to deliver multiple HIV genes that express viral proteins. Under the terms of this collaboration, IAVI is funding work at Targeted Genetics and at CRI focused on preclinical and clinical development of a vaccine candidate. We have the right to commercialize in industrialized countries any vaccine that may result from this development collaboration, and we have the right to manufacture the vaccine for non-industrialized nations. The section below entitled "Research and Development Collaborations" provides a detailed description of this collaboration.

Under this vaccine approach, we use an AAV vector to deliver certain genes from the HIV genome to muscle cells in a healthy individual. The objective of this vaccine is to express HIV viral genes as proteins by the muscle cells. The HIV proteins are detected by the immune system to elicit a strong immune response against HIV without exposing the vaccinated individual to HIV. Based on our pre-clinical animal studies, we believe that a single dose of an AAV-based vaccine containing HIV genes could allow for a sustained and high level of gene expression of HIV proteins *in vivo*, thereby eliciting a robust and sustained immune response. Further, data from studies in nonhuman primates suggest that this vaccine approach may hold significant promise by triggering both an antibody and a T-cell

immune response. Monkeys immunized with AAV vectors carrying SIV genes, the primate equivalent of HIV, develop immune responses that provide protection against disease progression after challenge with a pathogenic SIV virus. These data and additional preclinical data support the Phase I clinical trials in humans.

In June 2003, we announced preclinical results that supported commencement of clinical trials of our AIDS vaccine candidate. In December 2003, we and IAVI initiated a Phase I initial dose escalation safety study in humans for our AIDS vaccine product candidate in Europe. This dose-escalation safety trial is designed to enroll up to 50 volunteers who are uninfected with HIV and in good health. Each participant in this study will receive a single injection of the vaccine candidate or placebo and they will be monitored for safety and immune response. We expect to complete the dose-escalation phase of this study by the end of 2004.

Rheumatoid Arthritis

Rheumatoid arthritis, or RA, is a chronic disease that causes pain, stiffness, swelling and loss of function in the joints and inflammation in other organs. According to the Arthritis Foundation, RA affects more than two million people in the United States, with disease onset occurring most frequently in people between the ages of 20 and 45. While the exact cause of the disease remains unknown, autoimmune and inflammatory processes lead to chronic and progressive joint damage. Researchers have found that the cytokine called tumor necrosis factor-alpha, or TNFα, plays a pivotal role in this disease process and have shown anti-TNFα therapies to be a valuable strategy to treat RA. RA is currently treated with protein therapies such as Amgen Inc.'s etanercept; a variety of systemic treatments, including steroid and non-steroid anti-inflammatory drugs, and monoclonal antibody therapies such as Johnson and Johnson's infliximab and Abbott's adalimumab; and other drugs such as methotrexate and cyclosporine. According to the publication "Medical Advertising News", the estimated worldwide market for anti-TNFα therapies is expected to reach $7 billion by 2011.

TNFα is an important cytokine of the immune system. TNFα is a critical component of the inflammatory process launched as part of the immune response to a variety of perceived bodily threats such as infection, injury, and other disease. While anti-TNFα therapies are now widely used in the treatment of RA, there are a number of patients on systemic anti-TNFα therapies who do not fully respond to those therapies and still have one or several joints that cause them pain or impact their daily lives. We are developing a locally delivered AAV-based anti-TNFα product as a potential supplement to systemic protein therapy for use in patients with RA symptoms where one or several joints do not respond to systemic protein therapy. We believe that local administration of a DNA sequence encoding an anti-TNFα protein may be a potentially useful supplement to currently used drugs in a number of inflammatory conditions including RA. The characteristics of AAV vectors make them well suited for delivery of genes to joints and other local environments. In addition, a locally administered anti-TNFα therapy could also be useful in patients with a limited number of joints impacted by RA who may not require systemic therapy.

Our product candidate, tgAAC94, is comprised of an AAV vector that contains a gene that encodes the soluble anti-TNFα protein TNFR:Fc. In preclinical animal models, we have administered AAV-rat TNFR:Fc to the muscle or the joint of rats with experimentally induced RA. Data from these animal studies have shown that a single injection of a vector carrying the soluble TNFR gene into the ankles of arthritic rats resulted in a significant reduction in ankle and hind paw swelling as measured by arthritis index scores. Data also suggested that animals treated in a single joint experienced a reduction in swelling in both the treated joint as well as the contra-lateral joint. Following injection to the joint, we observed beneficial results without accompanying elevated levels of systemic protein expression and these results suggest, at least in animal models, that a benefit may be possible with this treatment approach without the potential negative implications of a reduction of TNFα protein observed in the blood.

In June 2003, we announced preclinical results for tgAAC94 that support the initiation of clinical trials. In January 2004, we received regulatory approval from the FDA and Health Canada to begin a Phase I clinical trial and we plan to dose the first patient during the first quarter of 2004. This dose-escalation safety trial is designed to enroll up to 32 patients with rheumatoid arthritis and will be conducted in up to eight sites in the United States and Canada. Patients will be monitored for safety and improvements in arthritis signs and symptoms. We expect to complete patient accrual and dosing for this study by the first quarter of 2005.

Hyperlipidemia

We are exploring gene therapies for cardiovascular disease by applying our AAV vector technology to treating hyperlipidemia, the elevation of lipids, or fats, such as cholesterol in the bloodstream. Approximately four million people in the United States have a genetic predisposition to some form of hyperlipidemia, such as familial hypercholesterolemia, familial combined hyperlipidemia and polygenic hypercholesterolemia. Approximately 10% of these patients have severe forms of the disease and do not respond to standard drug therapy, such as statins. If untreated, disease progression can lead to morbidity and death from heart attack or stroke. As part of our acquisition of Genovo, Inc., we acquired a product development program aimed at assessing the delivery of genes to treat dyslipidemia, a condition of increased levels of LDL-type cholesterol. We have a sponsored research agreement with an academic laboratory to assess the potential clinical utility of an AAV vector product candidate expressing the gene for vLDL, a receptor protein that binds to LDL, for treating hyperlipidemia. We have exclusive rights to certain intellectual property related to the use of AAV-based gene therapy for treating hypercholesterolemia.

Programs Not Under Active Development

In addition to our core product development programs in cystic fibrosis, rheumatoid arthritis and our AIDS vaccine, we have generated proof of concept data in several other diseases. We believe that several of these programs provide opportunities for establishing development partnerships that may provide us with additional revenue or sources of funding. We are not pursuing the further development of these programs unless and until we can secure other sources of funding for these programs.

tgDCC-E1A for Cancer

Cancer is the second leading cause of death in the United States, with over one million new cases diagnosed each year. Cancer arises from the disruption of normal cell growth and division, which are regulated by cellular proteins and genes. Cancer can result from the structural alteration or abnormal expression of these genes or from mutation, or deletion, of tumor inhibitor genes.

In 1996, we acquired certain worldwide rights to the E1A gene and to issued patents covering the use of the E1A gene in cancer therapy. Some of these rights are subject to our continued development of a cancer program using the E1A gene. E1A is gene derived from a common virus called an adenovirus. E1A regulates the expression of viral and cellular genes within cells infected by the virus. We deliver this gene using a synthetic delivery system called DC-Cholesterol which is a lipid. We recognized that if E1A could be delivered into cancerous cells, its ability to influence gene expression might be useful in slowing the growth of tumors and sensitizing them to chemotherapeutic drugs and radiation. Research data indicate that E1A can function as an inhibitor of the HER-2/neu oncogene, which is known to be over-expressed in many cancers. Other preclinical studies indicate that tgDCC-E1A sensitizes tumor cells to certain chemotherapeutic agents or radiation used to destroy the tumor cell.

We completed a series of Phase I and Phase II clinical trials of our tgDCC-E1A product candidate as a single agent in several different cancers before testing the product candidate in combination with chemotherapy and radiation treatments. In these trials, we delivered tgDCC-E1A into the peritoneal cavity of ovarian cancer patients and into the pleural cavity of breast cancer patients. The results indicated that clinicians could safely administer the drug in biologically active amounts and that the E1A gene was present and active in tumor cells. Additionally, in some patients, we observed decreased levels of HER-2/neu expression and decreased numbers of tumor cells. In Phase I and Phase II clinical trials in head and neck cancer patients who had failed to respond to previous chemotherapy and radiation treatments, we delivered tgDCC-E1A as a single agent by direct injection into their tumors. The results of the Phase I trial also indicated that clinicians could safely administer the drug in biologically active amounts and that the E1A gene was present and active in tumor cells.

In late 1999, we began the first clinical trial of tgDCC-E1A administered in combination with chemotherapeutic drugs. In this Phase I clinical trial, we treated advanced-stage ovarian cancer patients with a combination of tgDCC-E1A and two chemotherapy products, Taxol® and Cisplatin, at increasing dosage levels.

tgDCC-E1A and Cisplatin are administered directly to the peritoneal cavity and Taxol® is administered intravenously. This trial was designed to evaluate drug safety and to assess maximum tolerable dose levels, as well as measure the biologic activity of E1A. In this trial, a maximum tolerated dose was not reached and the trial showed a good safety profile of the drug and efficient transfer of the E1A gene into the targeted cells. The trial also showed a decrease in the level of CA-125, a marker for ovarian cancer.

In late 2000, we began a multi-center Phase II clinical trial of tgDCC-E1A administered together with radiation therapy to patients with recurrent or inoperable head and neck cancer. Patients were treated with injections of tgDCC-E1A twice a week throughout six to seven weeks of radiation therapy. Primary endpoints of this trial included tumor response, as measured by CT scan 12 weeks following completion of therapy, and safety and tolerability of tgDCC-E1A in combination with radiation. Other endpoints included time-to-progression of treated tumors, length of relapse-free periods, overall survival rates and comparison of responses of tumor sites treated with both tgDCC-E1A and radiation to tumors treated with radiation alone. This trial was closed to patient enrollment.

During 2002, we suspended further clinical development of our cancer program to focus our activities on our AAV-based development programs. We may resume development of our oncology program, but do not plan to do so until we can find other sources of funding for the program.

tgLPD-E1A for Metastatic Cancer

We believe that our clinical testing of tgDCC-E1A, our synthetic vector-based product candidate for treating cancer, has demonstrated the potential of E1A as a tumor inhibitor. We therefore believe that if we are able to deliver E1A systemically to reach tumor sites throughout the body, we could significantly expand the utility of E1A as a potential cancer treatment. We have therefore pursued the development of new formulations of E1A, which we believe have the potential to target cancer cells when administered systemically.

One of these formulations in preclinical development, tgLPD-E1A, uses LPD technology and results in the formation of stable DNA particles of a small and defined size encapsulated in a lipid shell. This formulation appears to significantly contribute to the stability of the compound and enables vector particles delivered via intravenous administration to travel throughout the body with greatly reduced rates of degradation, thus improving gene transfer efficiency. We believe that this condensed DNA delivery platform provides the basis for developing a systemic delivery system for administering E1A or other genes to tumors. Several preclinical animal studies of tgLPD-E1A formulations indicate promising results. In a mouse model of human breast cancer tumors, we administered tgLPD-E1A systemically to evaluate its ability to inhibit tumor growth. The results indicated that the impact of tgLPD-E1A on tumor growth in these mice was comparable to the impact observed when administering Taxol®, a chemotherapeutic drug. Additionally, administering both Taxol® and tgLPD-E1A inhibited tumor growth in mice significantly better than administering either agent alone. Furthermore, additional preclinical studies suggest that the LPD platform could be modified to provide an enhanced efficacy and safety profile by incorporating targeting molecules that can direct delivery of the gene to specific tissue types and cells. Consequently, should we continue development of this product candidate, we intend to perform evaluations of these alternate formulations before deciding which formulation, if any, will advance into a clinical development phase.

Hemophilia

Hemophilia is a hereditary disorder caused by the absence or severe deficiency of blood proteins that are essential for proper coagulation. In the case of hemophilia A the missing protein is Factor VIII and in the case of hemophilia B, the missing protein is Factor IX. According to the National Hemophilia Foundation approximately 7,000 people in the United States suffer from hemophilia A and approximately 3,600 people in the United States suffer from hemophilia B. Hemophilia patients face spontaneous, uncontrolled bleeding that can lead to restricted mobility, pain and, if left untreated, death. Serious, acute bleeding incidents are generally treated by administering either manufactured or naturally-derived coagulation proteins. If slow, chronic bleeding is not treated, progressive, irreparable physical damage may result. Because both manufactured and naturally-derived coagulation proteins are expensive, protein therapy is generally limited to treating acute bleeding episodes in patients with hemophilia.

Further, proteins derived from human serum may carry blood-borne pathogens such as HIV, Epstein Barr virus and hepatitis C.

We believe that there are several reasons for developing a gene therapy product that could be administered to hemophilia patients to prevent spontaneous bleeding incidents. Both hemophilia A and hemophilia B result from a single gene defect that is well understood, and replacement of the missing protein has been used as an effective therapy for the disease. Overproduction of the Factor VIII or Factor IX protein has not been shown to be harmful, which reduces the need for precise regulation of gene expression. Researchers believe that production of as little as 5% of normal levels of the missing protein could effectively prevent chronic bleeding incidents in hemophilia patients. The high cost of protein therapy generally limits its use to treating acute bleeding incidents, which may provide a significant market opportunity for gene-based products that address the underlying disease. We believe the current global market for Factor VIII protein products, which is estimated at $1.2 billion not including hospitalization costs, represents a significant market opportunity. While the global market for Factor IX protein products is substantially smaller than the Factor VIII market, we believe it also represents a significant market opportunity.

We believe that AAV vectors represent a promising means of delivering a gene to trigger production of the Factor VIII protein for treating hemophilia A or the Factor IX protein for treating hemophilia B. We have generated proof of concept data for Factor VIII gene therapy in mouse models of hemophilia A and for Factor IX gene therapy in mouse and dog models of hemophilia B. In these models, the use of AAV vectors to deliver the Factor VIII or Factor IX gene resulted in decreased bleeding times for extended periods of time. A non-invasive route of administration such as pulmonary delivery may be particularly attractive for the treatment of a disease in which invasive procedures may increase the risk of bleeding episodes. Given our experience with pulmonary delivery of AAV vectors for the treatment of cystic fibrosis, we believe that we can adapt our product development infrastructure to support pulmonary delivery of genes to treat diseases that manifest themselves outside the lung. Since November 2000, we had been developing our Factor VIII gene therapy with Wyeth Pharmaceuticals, or Wyeth. However, in November 2002, Wyeth notified us of its decision to terminate our development collaboration to support development of our product development program for hemophilia. We entered into an agreement for the termination of the collaboration in February 2003. We have suspended further development of this program until we obtain other sources of funding.

Programs Developed by a Third Party

Glioma

Glioma is a type of brain cancer that affects an estimated 17,000 people in the United States each year. Current treatment options for glioma include surgery, radiation therapy, chemotherapy or a combination of these treatments. As part of our collaboration with Biogen, Inc., or Biogen, which concluded in 2003, we provided Biogen with limited manufacturing process development support for its product development program directed at treating glioma using an adenoviral vector to deliver the gene for interferon beta. Interferon beta is a potent stimulator of the immune system, and sustained expression of this protein at the site of brain tumors may help the body rid itself of cancer cells. Localized, sustained production of interferon beta may result in superior anti-tumor efficacy with little or no systemic toxicity. We believe that preclinical studies in several animal cancer models validate this approach. Biogen owns worldwide rights to product candidates resulting from this research and has initiated a Phase I clinical trial for this product candidate. Prior to the merger of Biogen and IDEC Pharmaceuticals in November 2003, Biogen had licensed its rights to this program to IDEC as part of a co-development agreement covering multiple oncology product development programs. Under the term of our agreement with Biogen, we are no longer involved in the clinical development of this Glioma product candidate but we are entitled to receive a royalty on any future sales resulting from this product candidate.

Gene Therapy

Overview. Gene therapy is an approach to treating or preventing genetic and acquired diseases that involves introducing a functional gene into target cells to modulate disease conditions. To be transferred into cells, a gene is

incorporated into a delivery system called a vector, which may be either viral or synthetic. The process of gene transfer can be accomplished *ex vivo*, whereby cells are genetically modified outside of the body and infused into the patient, or *in vivo*, whereby vectors are introduced directly into the patient's body.

Once delivered into the cell, the gene can express or direct production of the specific proteins encoded by the gene. Proteins are fundamental components of all living cells and are essential to controlling cellular structure, growth and function. Cells produce proteins from a set of genetic instructions encoded in DNA, which contains all the information necessary to control cellular biological processes. DNA is organized into segments called genes, with each gene containing the information required to express a protein. When genes are expressed, the sequence of DNA is transcribed into RNA, which is then translated into a sequence of amino acids that constitutes the resulting protein.

An alteration in the gene, or an absence of specific genes, causes proteins to be over-produced, under-produced, or produced incorrectly, any of which events may cause disease. These diseases include cystic fibrosis, in which a defective protein is produced, and hemophilia, in which a protein is under-produced. Deficient or absent genes can also cause cells to incorrectly regulate gene expression, which can cause diseases such as certain types of cancer and inflammatory disease. Gene therapy may be used to treat disease by replacing the missing or defective gene to facilitate the normal protein production or gene regulation capabilities of cells. In addition, gene delivery may be used to enable cells to perform additional roles in the body. For example, by delivering DNA sequences that encode proteins that are usually not expressed in the target cell, thus conferring new function to these cells, gene therapy could enhance the ability of the immune system to fight infectious diseases or cancer. Gene therapy may also be used to inhibit production of undesirable proteins or viruses that cause disease, by suppressing expression of their related genes within cells.

A key factor in the progress of gene therapy has been the development of safer and more efficient methods of transferring genes into cells. A common gene delivery approach uses modified viruses to transfer the desired genetic material into a target cell. The use of viruses takes advantage of their natural ability to introduce genes into cells and, once present in the target cell, to use the cell's metabolic machinery to produce the desired protein. In some gene therapy applications, viruses are genetically modified to inhibit the ability of the virus to reproduce itself. Successful viral gene transfer for diseases requiring long-term gene expression involves meeting a number of essential technical requirements, including the ability of the vector to carry the desired genes, transfer the genes into a sufficient number of target cells and enable the delivered genes to persist in the host cell and produce proteins for a long duration. We are using viral vectors such as AAV for potential gene therapy applications requiring long-term gene expression.

Our AAV Viral Vectors. With our scientific collaborators, we have developed significant expertise in designing and using AAV vectors in gene therapy. We believe that our AAV vectors are particularly well suited for treating a number of diseases for the following reasons:

- AAV does not appear to cause human disease;
- our AAV vectors do not contain viral genes that could produce unwanted cellular immune responses leading to side effects or reduced efficacy;
- AAV vectors can introduce genes into non-dividing or slowly dividing cells;
- AAV vectors can persist in the host cell to provide relatively long-term gene expression; and
- our AAV vectors can be manufactured using methods utilized in the manufacture of other biopharmaceutical products.

We are building our proprietary position in AAV-based technology through our development or acquisition of rights to inventions that:

- provide important enhancements to AAV vectors;
- demonstrate novel approaches to the use of AAV vectors for gene therapy; and
- establish new and improved methods for large-scale production of AAV vectors.

We have conducted preclinical experiments to assess the potential for using AAV vectors to deliver therapeutic genes to a variety of target cells, including joints, muscles, the lung, the liver and the cardiovascular system (heart and blood vessels). We are currently developing three product candidates that utilize AAV as the delivery vector: a cystic fibrosis treatment, an AIDS vaccine and an arthritis treatment.

Synthetic Vectors. Synthetic vector systems generally consist of DNA incorporating the desired gene, combined with various compounds designed to enable the DNA to be taken up by the host cell. Synthetic *in vivo* gene delivery approaches include:

- injecting pure plasmid, or "naked," DNA in an aqueous solution;
- encapsulating genes into lipid carriers such as liposomes, which facilitate the entry of DNA into cells;
- combining negatively charged DNA with positively charged (cationic) lipids; and
- directing DNA to receptors on target cells by combining the gene with molecules (ligands) that bind to the receptors.

While we are not currently developing any product candidates using synthetic vectors, we have exclusive rights to a significant body of synthetic gene delivery technology based on cationic lipids. These synthetic vectors, such as DCC-Cholesterol, are formulated by mixing negatively charged DNA with positively charged cationic lipids, which promotes uptake of genes by cells. These vectors appear to have a good safety profile for use *in vivo*. We believe that synthetic vectors have several characteristics that make them particularly well-suited for treating certain diseases, including:

- ability to transfer relatively large segments of DNA;
- ability to deliver genes in rapidly dividing or non-dividing cells; and
- ability to target to specific cell receptors.

Cell Therapy

In November 2000, we established CellExSys, Inc., a majority-owned subsidiary, to further develop our *ex vivo* cell therapy capabilities. CellExSys' portfolio of intellectual property includes patents and patent applications relating to modification of T-cells with chimeric receptors, the use of T-cells as gene delivery vehicles and other proprietary technologies related to cell therapy.

Cell therapy involves delivering living cells into a patient to treat disease, either in place of, or in combination with, other pharmaceuticals. One type of cell therapy involves the use of cytotoxic T lymphocytes, also known as CTLs, which are a type of immune system cell. The function of CTLs is to destroy foreign or diseased cells in the body. CellExSys is developing technology and expertise that enables the isolation of potent, disease-specific CTLs from small samples of patient blood, which can then be grown into a larger number of cells and used to treat disease. We have exclusive rights to a proprietary rapid expansion method, or REM, patent that was issued to the Fred Hutchinson Cancer Research Center in October 1998. Using the REM process, CellExSys can grow large

numbers of CTLs from small quantities of starting cells over several weeks, while preserving the cells' specific disease-fighting capabilities. We believe that CellExSys' technology and expertise could support development of a series of cell-based therapies to treat infectious diseases and cancer. In addition to the potential therapeutic uses of the REM technology, we believe that REM also has utility in new drug discovery and vaccine development.

The applications of the REM technology, an *ex vivo* therapeutic approach, are quite distinct from our *in vivo* gene delivery technologies and product development programs. As a result, we transferred our interests in our cell therapy and *ex vivo* therapy-related patents and patent applications to CellExSys. As a separate subsidiary focused on patient-specific cell therapy and other applications of REM technology, we believe that CellExSys is positioned to identify and take advantage of desirable product, partnership and financial opportunities that fall outside the field of *in vivo* gene therapy. We have funded the majority of CellExSys' activity since forming CellExSys in 2000 with the expectation of exploiting our cell therapy investment over the medium- to long-term. We are presently pursuing strategic opportunities to realize near-term benefit for our investment in CellExSys. These options may include selling all or a portion of our interest in CellExSys to another company, obtaining third party investment in CellExSys or licensing the CellExSys technology to other companies. In the event we do not sell all or a portion of our interest in CellExSys to another company, obtain third-party investment in CellExSys or license the CellExSys technology to other companies, we may cease funding of CellExSys, which would halt the development of its product candidates.

In October 2002 CellExSys and Itochu Corporation, or Itochu, announced an agreement to form an alliance in the field of cellular therapy in Japan. Under the terms of the agreement, CellExSys and Itochu agreed to investigate the economics of forming a Japanese joint venture company that would have been responsible for the development, sales, marketing and manufacturing of CellExSys' potential cell therapy products in Japan. The agreement expired on December 31, 2002, without the formation of the Japanese joint venture. As a result, Itochu's funding under the agreement was converted into a Series A Preferred Stock interest in CellExSys amounting to approximately 5% of CellExSys' capital stock on a fully diluted basis. In February 2004, as part of a mutual settlement of claims we sold 158,764 shares of our common stock to Itochu valued at $375,000, Itochu's releases of claims related to its additional funding of CellExSys and the return of any Itochu interest in CellExSys to us.

Research and Development Collaborations

We have entered into various collaborations with pharmaceutical and biotechnology companies, and a non-profit organization to develop several of our product candidates. Our collaborations typically provide us with reimbursement of research and development costs, together with funding through purchases of our equity securities, loans, payments of milestone fees or direct funding of clinical trial costs. If the product candidate covered by the collaboration is successfully commercialized, we are generally entitled to manufacturing and royalty-based revenue. Substantially all of our revenue, and substantially all of our expected revenue for the next several years, is derived from our product development collaborations. We have ongoing collaborations with IAVI and with the CF Foundation. In 2003 our collaboration with Biogen concluded and in 2002 our collaborations with Celltech Group plc, Elan Corporation plc, Genzyme Corporation and Wyeth concluded.

International AIDS Vaccine Initiative

In February 2000, we entered into a three year research collaboration with IAVI and CRI to develop an AIDS vaccine for use in non-industrialized countries. Effective December 2003, this collaboration was extended through the end of 2006. Under the terms of this public-private collaboration, IAVI funds work at Targeted Genetics and at CRI focused on development and preclinical studies and Phase I clinical trials of a vaccine candidate. We have the right to commercialize any vaccine that may result from this development collaboration in industrialized countries, and we have the right to manufacture the vaccine for non-industrialized nations and sell it to IAVI at full cost of manufacturing plus a reasonable public sector profit.

The vaccines, which will utilize our AAV vectors to deliver selected HIV genes, are designed to elicit a protective immune response against HIV and prevent its progression to AIDS. We anticipate that these vaccines, if successfully developed, would be provided to the developing countries of the world through the public health sector

which includes organizations such as the World Health Organization and IAVI. IAVI funds our development activities based upon an agreed upon annual work plan and budget. Under the terms of the agreement any of the parties can terminate this collaboration, without cause, with ninety day advance notice. If IAVI terminates the collaboration for certain reasons, including our failure to continue to develop an AIDS vaccine, IAVI has the right to develop and commercialize AIDS vaccines utilizing intellectual property owned by us for use in manufacturing and commercializing AIDS vaccines in the developing and developed world. IAVI however does not have this termination right if the reason for the termination is due to our failure to continue to develop an AIDS vaccine because IAVI has stopped funding the development program.

During 2004, we, IAVI and CRI plan to coordinate efforts to complete the dose escalation phase of the Phase I clinical trial, which we initiated in December 2003 and pursue the development of other vaccine candidates that contain multiple genes from the HIV genome. Through December 31, 2003, we have earned $12.0 million in research and development revenue from IAVI under this collaboration. Assuming full implementation of the program work plan for 2004, we expect to receive up to $10.7 million of research and development funding from IAVI in 2004.

Under the terms of the collaboration, IAVI has retained rights to ensure that any safe and efficacious AIDS vaccines developed as part of this collaboration will be distributed in developing countries at a reasonable price to be determined by IAVI. If we are not able or decline to produce the vaccine for developing countries in reasonable quantities and at a reasonable price, IAVI has rights that will allow IAVI to contract with other manufacturers to make the vaccines available at a reasonable price in those countries. We currently have rights to develop the technology utilized in or developed as a result of the IAVI collaboration for development, manufacture and commercialization of AIDS vaccines in the developed world.

Cystic Fibrosis Foundation

In April 2003, we established a collaboration with the CF Foundation related to our current Phase II clinical trial for our product candidate for treating cystic fibrosis. The CF Foundation is providing funding of up to $1.7 million directly to the sites conducting the study to cover their direct trial costs. Under this collaboration, in return for funding of the external trial costs by the CF Foundation, we have agreed to provide the CF Foundation with a multiple of their funding contribution from future sales of this product candidate, if the product candidate is commercialized. This agreement expires upon conclusion of all payment obligations related to this trial by the CF Foundation or may be terminated earlier by the CF Foundation with sixty days advance notice.

Biogen, Inc.

In connection with our acquisition of Genovo in September 2000, we established a three-year, multiple-product development and commercialization collaboration with Biogen. This collaboration ended in September 2003 upon the completion of the development period.

Under this collaboration Biogen paid us $8 million in research funding and upfront payments and $1 million per year in research and development funding over the initial three-year development period. Biogen also agreed to provide us with loans of up to $10 million and to purchase up to $10 million of our common stock under an equity purchase commitment, each at our discretion. During 2001, we borrowed $10 million from Biogen under the loan commitment. The loan is due in August 2006 and bears interest at the one-year LIBOR rate plus 1%, reset quarterly. In 2002, we raised $4 million through the sale of 5,804,673 shares of our common stock to Biogen at a price of $0.69 per share and in August 2003, we raised $4.8 million through the sale of 2,515,843 shares of our common stock to Biogen at a price of $1.91 per share. The equity purchase commitment with Biogen has expired.

Upon the completion of this development collaboration in September 2003, we recognized $2.6 million in revenue which represented the remainder of previously deferred payments received from Biogen. Through December 31, 2003, we earned $11.0 million in revenue from Biogen under this collaboration and have received $18.8 million in proceeds from the issuance of debt and equity securities.

Emerald Gene Systems, Ltd.

In July 1999, we formed Emerald Gene Systems, Ltd., or Emerald, our joint venture with Elan International Services, Ltd., a wholly-owned subsidiary of Elan Corporation plc, or Elan. We and Elan formed Emerald to develop enhanced gene delivery systems, based on a combination of our gene delivery technologies and Elan's drug delivery technologies. These gene delivery systems potentially could be administered systemically or orally to deliver genes targeting the desired cells within the body. The initial three-year development period for Emerald ended during 2002 and since August 2002, there have been no operating activities within the joint venture. We and Elan funded the expenses of Emerald in proportion to our respective ownership interests. Through the completion of Emerald's operating activities, we had provided $7.5 million of cash funding to the Emerald joint venture. Emerald reimbursed each company for the costs of research and development and related expenses, plus a profit percentage. We do not expect that there will be any further development activities in the Emerald joint venture.

We own 80.1% of Emerald's common stock and 80.1% of Emerald's preferred stock and Elan owns the remaining 19.9% of Emerald's common and preferred stock. The common stock of Emerald held by Elan is similar in all respects to the common stock held by us, except that those shares held by Elan do not have voting rights. The common shares held by Elan may be converted into voting common shares at Elan's election. Although we currently own 100% of the voting stock, Elan and its subsidiaries have retained significant minority investor rights that are considered participating rights under the Financial Accounting Standards Board, or FASB, Emerging Issues Task Force, or EITF, Bulletin 96-16, *Investors' Accounting for an Investee When the Investor Has a Majority of the Voting Interest but the Minority Shareholder Has Certain Approval or Veto Rights*. Because Elan's participating rights prevent us from exercising control over Emerald, we have not consolidated the financial statements of Emerald, but instead have accounted for our investment in Emerald under the equity method of accounting.

In January 2003, the FASB issued FIN No. 46, *"Consolidation of Variable Interest Entities."* This interpretation of Accounting Research Bulleting No. 51, *"Consolidated Financial Statements"* addresses consolidation of business enterprises of variable interest entities in which: (1) the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, which is provided through other interests that will absorb some or all of the expected losses of the entity and (2) the equity investors lack one or more of certain essential characteristics of a controlling interest. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. In December 2003, the FASB revised FIN No. 46 to modify the effective date for applying this interpretation, which made it effective for us on January 1, 2004. We will adopt the provisions of FIN No. 46 in the first quarter of 2004 and do not expect the provisions of FIN No. 46 to have a significant effect on our financial position or operating results. We are currently evaluating additional disclosures, if any, that may be required for Emerald.

As part of our agreements related to Emerald, Elan provided us funding as follows:

- Elan purchased $5 million of our common stock in 1999 at the closing of the joint venture agreements and purchased an additional $5 million of our common stock in 2000;

- During 2001 and 2002, we drew an aggregate amount of $7.9 million under a $12 million convertible note commitment by Elan to fund a portion of our investment in Emerald, which convertible note commitment has now expired. In September 2003, we elected to convert the entire outstanding principal and interest under this note commitment, which totaled $9.4 million, into 5,203,244 shares of our common stock in accordance with the original terms of the note; and

- In 1999, at the closing of the joint venture agreements, Elan received $12 million of our Series B convertible preferred stock in exchange for our 80.1% interest in Emerald.

Elan may convert the Series B convertible preferred stock, at its option, into shares of our common stock. The Series B preferred stock will automatically convert into common stock upon the occurrence of specified transactions involving a change of control of Targeted Genetics. Compounding dividends on the Series B preferred

stock accrue at 7% per year on the $1,000 per share face value of the preferred stock until July 2005. The holder of Series B preferred stock, is not entitled to vote together with the holders of our common stock, including with respect to the election of directors, or as a separate class, except as otherwise provided by the Washington Business Corporation Act.

The agreements relating to the joint venture generally require that Elan obtain our consent in order to assign or transfer shares of our common or preferred stock that it holds. As of December 31, 2003 Elan holds a total of approximately 7.7 million shares of our common stock, representing 11.7% of our currently issued and outstanding common stock. Elan also holds 12,015 shares of Targeted Genetics' Series B convertible preferred stock that as of December 31, 2003, was convertible into approximately 4.8 million shares of our common stock. If at any time Elan's ownership exceeds 10% of our common stock, Elan has the right to nominate one director, who must be acceptable to Targeted Genetics, for election to Targeted Genetics' board of directors.

Wyeth

In November 2000, we entered into a collaboration with Wyeth to develop AAV vector-based gene therapy products for treating hemophilia A and, potentially, hemophilia B. In November 2002, Wyeth elected to terminate this hemophilia collaboration and related agreements. Under the terms of our agreements with Wyeth, all rights that we granted or otherwise extended to Wyeth related to the hemophilia technology have returned to us. In connection with the termination of our collaboration with Wyeth, we entered into a settlement agreement with Wyeth in February 2003, and in March 2003, we received $3.2 million in settlement of outstanding expenses incurred by us under the collaboration and as an early termination payment. As part of this settlement agreement we extended the time frame until July 31, 2004 in which we may exercise an option to access certain technology and rights of Wyeth, which may be useful in the development of a hemophilia gene therapy.

Through December 31, 2003, we earned $18.4 million in upfront fees, research and development revenue and termination fees from Wyeth under this collaboration.

Research and development expenses for our internally-funded research and development activities were $10.1 million in 2003, $14.7 million in 2002 and $15.7 million in 2001. Research and development expenses for our externally-funded research and development activities were $4.8 million in 2003, $14.7 million in 2002 and $13.5 million in 2001.

Licensing Arrangements

Alkermes, Inc.

In June 1999, we entered into a license agreement with Alkermes, Inc., or Alkermes, in which we received exclusive rights to an issued patent and other pending patent applications related to AAV vector manufacturing. The license broadly covers a manufacturing method that we believe is critical to making AAV-based products in a commercially viable, cost-effective manner. The license to this technology, developed by Children's Hospital in Columbus, Ohio, covers the use of cell lines for manufacturing AAV vectors in multiple disease areas. Under the terms of the license agreement, we issued to Alkermes 500,000 shares of our common stock warrants to purchase 2,000,000 additional shares of our common stock, which warrants expire from June 2007 to June 2009. Alkermes will also receive milestone payments and royalties on the sale of any products manufactured using the licensed technology and is entitled to a portion of any sub-licensing payments that we may receive.

Relationship with Amgen, Inc.

Targeted Genetics was formed in 1989 as a subsidiary of Immunex Corporation, a biopharmaceutical company developing recombinant proteins as therapeutics. In connection with our formation, we issued Immunex shares of our preferred stock that were subsequently converted into 1,920,000 shares of our common stock. In exchange, we received rights from Immunex under a Gene Transfer Technology License Agreement, including an exclusive worldwide license to certain Immunex proprietary technology specifically applicable to gene therapy

applications. The licensed technology relates to gene identification and cloning, panels of retroviral vectors, packaging cell technology, recombinant cytokines, DNA constructs, cell lines, promoter/enhancer elements and immunological assays. In July 2002, Immunex was acquired by Amgen, Inc. Our license to the Immunex technology was not affected by the acquisition and we retain all rights granted under the original license.

Prior to Amgen's acquisition of Immunex, we exchanged sporadic correspondence and engaged in discussions with Immunex regarding the terms, scope and possible amendment of the Gene Transfer Technology License Agreement. Some of these communications have included, among other things, differing views about our rights to the gene construct coding for TNFR:Fc used in the development of our rheumatoid arthritis product candidate tgAAC94. These communications did not lead to either a final resolution or an active dispute regarding our differences with Immunex. Following Amgen's acquisition of Immunex, we communicated to Amgen our desire to resume discussions seeking clarification of our relationship with Amgen. Our subsequent communications with Amgen have not yet resulted in a resolution of our differences. In February 2004, in response to our January 2004 announcement that we had received regulatory approval for a Phase I clinical study for tgAAC94, Amgen sent a letter to us taking the position that we were not licensed, either exclusively or non-exclusively, under Immunex intellectual property covering TNFR:Fc or therapeutic uses for TNFR:Fc. We have responded with a letter confirming our confidence that the Gene Transfer Technology License Agreement gives us an exclusive worldwide license to use the gene construct coding for TNFR:Fc for gene therapy applications. We expect to have further communications with Amgen regarding our differences. Notwithstanding our confidence, it is possible that a resolution of those differences, through litigation or otherwise, could cause delay or discontinuation of our development of tgAAC94 or our inability to commercialize any resulting product.

Patents and Proprietary Rights

Patents and licenses are important to our business. Our strategy is to file or license patent applications to protect technology, inventions and improvements to inventions that we consider important to developing our business. To date, we have filed or exclusively licensed over 400 patent or patent applications with the USPTO, including foreign counterparts of some of these applications in Europe, Japan and other countries. Of these patent applications, over 100 patents have been issued or allowed. This proprietary intellectual property includes genes, formulations, methods of transferring genes into cells, processes to manufacture and purify gene delivery product candidates and other proprietary technologies and processes. We also rely on unpatented proprietary technology such as trade secrets, know-how and continuing technological innovations to develop and maintain our competitive position.

The patent positions of pharmaceutical and biotechnology firms, including our patent positions, are uncertain and involve complex legal and factual questions for which important legal principles are largely unresolved, particularly with regard to human therapeutic uses. Patent applications may not result in the issuance of patents, and the coverage claimed in a patent application may be significantly reduced before a patent is issued. If any patents are issued, the patents may be subjected to further proceedings limiting their scope, may not provide significant proprietary protection and may be circumvented or invalidated. Patent applications in the United States and other countries generally are not published until more than 18 months after they are filed, and because publication of discoveries in scientific or patent literature often lags behind actual discoveries, we cannot be sure that we were, or our licensor was, the first creator of inventions covered by pending patent applications or the first to file patent applications for these inventions.

We have licensed technology underlying several issued and pending patents. Among these are two key patents that relate to the use of AAV vectors for gene delivery, which we non-exclusively licensed from the National Institutes of Health, or NIH, and the University of Florida Research Foundation. In addition, we have acquired nonexclusive rights to the CFTR gene being delivered in our tgAAVCF product candidate for cystic fibrosis, which uses our proprietary AAV delivery technology to deliver a copy of the CFTR gene. Licensing of intellectual property critical to our business involves complex legal, business and scientific issues. If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop or commercialize the affected product candidates. For example, in July 1997 the licensor of our licensed CFTR gene and related vector was notified that the USPTO had

declared an interference proceeding to determine whether our licensor or an opposing party has the right to the patent application on the CFTR gene and related vector. Although we are not a party to the interference proceeding, its outcome could affect our license to the CFTR gene and related vector. If the USPTO or the U.S. Circuit Court of Appeals ultimately determines that our licensor does not have rights to both the CFTR gene and the vector, we believe that we will be subject to one of several outcomes:

- our licensor could agree to a settlement arrangement under which we continue to have rights to the gene and the vector at our current license royalties;
- the prevailing party could require us to pay increased license royalties to maintain our access to the gene, the vector or both, as applicable, which licensing royalties could be substantial; or
- we could lose our license to the gene, the vector or both.

If our licensor does not retain its right to the CFTR gene and the vector, and we cannot obtain access at a reasonable cost or develop or license a replacement gene and vector at a reasonable cost, we will be unable to commercialize our potential tgAAVCF product candidate. For a more detailed description of this risk, see the section entitled "Factors Affecting Our Operating Results, Our Business and Our Stock Price-Litigation involving intellectual property, product liability or other claims and product recalls could strain our resources, subject us to significant liability, damage our reputation or result in the invalidation of our proprietary rights" in Part II, Item 7 of this annual report.

In addition to patent protection, we rely on trade secret protection for our confidential and proprietary information and technology. To protect our trade secrets, we generally require our employees, consultants, scientific advisors and parties to collaborative agreements to execute confidentiality agreements. In the case of employees and consultants, the agreements also provide that all inventions resulting from work performed by them while employed by us will be our exclusive property. Despite these agreements, and other precautions we take to protect our trade secrets and other proprietary unpatented intellectual property, we may be unable to meaningfully protect our trade secrets and other intellectual property from unauthorized use or misappropriation by a third party. These agreements may not provide adequate remedies in the event of unauthorized use or disclosure of our confidential information. In addition, our competitors could obtain rights to our nonexclusively licensed proprietary technology or may independently develop substantially equivalent proprietary information and technology. If our competitors develop and market competing products using our unpatented or nonexclusively licensed intellectual property or substantially similar technology or processes, our products could suffer a reduction in sales or be forced out of the market.

A number of pharmaceutical and biotechnology companies and research and academic institutions have developed technologies, filed patent applications or received patents for technologies that may be related to our business. Some of these technologies, applications or patents may conflict with our technologies or patent applications. This conflict could limit the scope of any patents that we may obtain for our technologies or result in denial of our patent applications. In addition, if patents or patent applications that cover our activities are or have been issued to other companies, we may be required to either obtain a license from the owner or develop or obtain alternative technology. A license may not be available on acceptable terms, if at all, and we may be unable to develop or obtain alternative technology.

As the biotechnology industry expands and more patents are issued, the risk increases that our processes and potential products may give rise to claims that they infringe on the patents of others. These other parties could bring legal actions against us claiming damages and seeking to stop clinical testing, manufacturing and marketing of the affected product or use of the affected process. If we are found by a court to have infringed on the proprietary rights of others, we could also face potential liability for significant damages and be required to obtain a license to the proprietary technology at issue if we continue to commercialize. A required license may not be available on acceptable terms, if at all, which could impair our ability to commercialize our product candidates. Similarly, administrative proceedings, litigation or both may be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us or to determine the enforceability, scope and validity of the proprietary rights of

others. This type of litigation, regardless of its merit, could result in substantial expense to us and significantly divert the efforts of our technical and management personnel. An adverse outcome could adversely affect our business.

Competition

A number of companies and institutions are developing or considering the development of potential gene therapy and cell therapy treatments, including other gene delivery companies, biotechnology companies, pharmaceutical companies, universities, research institutions, governmental agencies and other healthcare providers. In addition to competition from these sources, our potential products will compete with more traditional therapies for the diseases on which we focus, including pharmaceutical products, medical devices and surgery. If our product candidates become commercial gene therapy products, they may compete with other analogous protein or pharmaceutical therapies. As a result, disputes including lawsuits, demands, threats or patent challenges may arise in an effort to slow our development. We also compete with others to acquire products or technology from research institutions or universities.

Many of our competitors have substantially more financial and other resources, larger research and development staffs and more experience and capabilities in researching, developing and testing products in clinical trials, obtaining FDA and other regulatory approvals and manufacturing, marketing and distributing products. In addition, the competitive positions of other companies may be strengthened through collaborative relationships, such as those with large pharmaceutical companies or academic institutions. As a result, our competitors may develop, obtain patent protection for, receive FDA and other regulatory approvals for or commercialize products more rapidly than we do or may manufacture and market their products more successfully than we do. Our competitors' technologies and products may be more effective or economically feasible than our potential products. If we are successful in commercializing our products, we will be required to compete with respect to manufacturing efficiency and marketing capabilities, areas in which we have no experience. These developments could limit the prices we are able to charge for any products we are able to commercialize or render our products less competitive or obsolete.

Governmental Regulation

All of our potential products must receive regulatory approval before they can be marketed. Human therapeutic products are subject to rigorous preclinical and clinical testing and other pre-market approval procedures administered by the FDA and similar authorities in foreign countries. In accordance with the federal Food, Drug and Cosmetics Act, the FDA exercises regulatory authority over the development, testing, formulation, manufacture, labeling, storage, record keeping, reporting, quality control, advertising, promotion, export and sale of our potential products. Similar requirements are imposed by foreign regulatory agencies. In some cases, state regulation may also apply.

Gene therapy and cell therapy are both relatively new technologies that have not been extensively tested or shown to be effective in humans. The FDA reviews all product candidates for safety at each stage of clinical testing. Safety standards must be met before the FDA permits clinical testing to proceed to the next stage. Also, efficacy must be demonstrated before the FDA grants product approval. Obtaining approval from the FDA and other regulatory authorities for a new therapeutic product candidate, if approval is ever obtained, is likely to take several years. We may encounter difficulties or unanticipated costs in our efforts to secure necessary governmental approvals, which could delay or prevent the marketing of our product candidates. In addition, the regulatory requirements governing gene and cell therapy product candidates and commercialized products are subject to change. The approval process, and ongoing compliance with applicable regulations after approval, involves substantial expenditures of financial and other resources.

Preclinical studies generally require studies in the laboratory or in animals to assess the potential product's safety and effectiveness. Preclinical studies include laboratory evaluation of toxicity, pharmacokinetics, or how the body processes and reacts to the drug, and pharmacodynamics, or whether the drug is actually having the expected effect on the body. Preclinical studies must be conducted in accordance with the FDA's Good Laboratory Practice regulations and, before any proposed clinical testing in humans can begin, the FDA must review the results of these preclinical studies as part of an Investigational New Drug application.

If preclinical studies of a product candidate, including animal studies, demonstrate safety, and laboratory test results are acceptable, then the potential product will undergo clinical trials to test the therapeutic agent in humans. Human clinical trials are subject to numerous governmental regulations that provide detailed procedural and administrative requirements designed to protect the trial participants. Each institution that conducts human clinical trials has an Institutional Review Board or Ethics Committee charged with evaluating each trial and any trial amendments to ensure that the trial is ethical, patients are protected and the trial meets the institutional requirements. These evaluations include reviews of how the institution will communicate the risks inherent in the clinical trial to potential participants, so that the patients may give their informed consent. Clinical trials must be conducted in accordance with the FDA's Good Clinical Practices regulations and the protocols the company establishes to govern the trial objectives, the parameters to be used for monitoring safety, the criteria for evaluating the efficacy of the potential product and the rights of each trial participant with respect to safety. FDA regulations require us to submit these protocols as part of the application. A FDA review or approval of the protocols, however, does not necessarily mean that the trial will successfully demonstrate safety and/or efficacy of the potential product.

Institutions that receive NIH funding for gene therapy clinical trials must also comply with the NIH Recombinant DNA Guidelines, and the clinical trials are subject to a review by the NIH's Office of Biotechnology Activities Recombinant DNA Advisory Committee, or RAC. The outcome of this review can be either an approval to initiate the trial without a public review or a requirement that the proposed trial be reviewed at a quarterly committee meeting. A clinical trial will be publicly reviewed when at least three of the committee members or the Director of the Office of Biotechnology Activities recommends a public review. Should the RAC require a public hearing, the start of the trial must be delayed until after the hearing date. Although the NIH guidelines do not have regulatory status, the RAC review process can impede the initiation of the trial, even if the FDA has reviewed the trial and approved its initiation. Additionally, before any clinical trial can be initiated at an NIH-funded site, the Institutional Biosafety Committee of that site must perform a review of the proposed clinical trial and ensure there are no safety issues associated with the trial.

Clinical trials are typically conducted in three phases often involving multiple clinical trials in each phase. In Phase I, clinical trials generally involve a small number of patients, who may or may not be afflicted with the target disease, to determine the preliminary safety profile. In Phase II, clinical trials are conducted with larger groups of patients afflicted with the target disease in order to establish preliminary effectiveness and optimal dosages and to obtain additional evidence of safety. In Phase III, large-scale, multi-center, comparative clinical trials are conducted with patients afflicted with the target disease in order to provide enough data for the statistical proof of efficacy and safety required by the FDA and other regulatory agencies for market approval. We report our progress in each phase of clinical testing to the FDA, which may require modification, suspension or termination of the clinical trial if it deems patient risk too high. The length of the clinical trial period, the number of trials conducted and the number of enrolled patients per trial vary, depending on our results and FDA requirements for the particular clinical trial. Although we and other companies in our industry have made progress in the field of gene therapy, we cannot predict what the FDA will require in any of these areas to establish to its satisfaction the safety and effectiveness of the product candidate.

If we successfully complete clinical trials for a product candidate, we must obtain FDA approval or similar approval required by foreign regulatory agencies, as well as the approval of several other governmental and nongovernmental agencies, before we can market the product in the United States or in foreign countries. Current FDA regulations relating to biologic therapeutics require us to submit an acceptable Biologics License Application, or BLA, to the FDA and receive approval before the FDA will permit commercial marketing. The BLA includes a description of our product development activities, the results of preclinical studies and clinical trials and detailed manufacturing information. Unless the FDA gives expedited review status, this stage of the review process generally takes at least one year. Should the FDA have concerns with respect to the potential product's safety and efficacy, it may request additional data, which could delay product review or approval. The FDA may ultimately decide that the BLA does not satisfy its criteria for approval and might require us to do any or all of the following:

- modify the scope of our desired product claims;
- add warnings or other safety-related information; and/or
- perform additional testing.

Because the FDA has not yet approved any gene therapy products, it is not clear what, if any, unforeseen issues may arise during the approval process. While we expect this regulatory structure to continue, we also expect the FDA's regulatory approach to product approval, and its requirements with respect to product testing, to become more predictable as its scientific knowledge and experience in the field of gene therapy increase. Adverse events in the field of gene therapy or other biotechnology-related fields, however, could result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of gene therapy products.

Once approved by the FDA, marketed products are subject to continual FDA review. Later discovery of previously unknown problems or failure to comply with applicable regulatory requirements may result in restrictions on marketing a product or in its withdrawal from the market, as well as potential criminal penalties or sanctions. In addition, the FDA requires that manufacturers of a product comply with current Good Manufacturing Practices requirements, both as a condition to product approval and on a continuing basis. In complying with these requirements, we expend significant amounts of time, money and effort in production, record keeping and quality control. Our manufacturing facilities are subject to periodic inspections by the FDA. If major problems are identified during these inspections that could impact patient safety, the FDA could subject us to possible action, such as the suspension of product manufacturing, product seizure, withdrawal of approval or other regulatory sanctions. The FDA could also require us to recall a product.

We are also subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and other federal, state and local regulations. For example, our controlled use of hazardous materials in our research and development activities must comply with standards prescribed by state and federal law.

Employees

As of December 31, 2003 we had approximately 90 full-time-equivalent employees, which included approximately 10 employees of our majority-owned subsidiary, CellExSys. Included in this employee base are approximately 70 that are involved in research and development, or support our research and development efforts. Fourteen of these employees have Ph.D. or M.D. degrees and a significant number of our management and professional employees have prior experience with other biotechnology or pharmaceutical companies.

Competition among biotechnology and pharmaceutical companies for highly skilled scientific and management personnel is intense. We believe that we have compensation and benefit programs in place that will allow us to be competitive in this environment. If we are ineffective, however, in retaining our existing workforce and scientific advisors or in attracting additional qualified employees and advisors, our business will not succeed. None of our employees are covered by a collective bargaining agreement.

Available Information

We were incorporated in the state of Washington in 1989. Our executive offices are located at 1100 Olive Way, Suite 100, Seattle, Washington 98101, and our telephone number is (206) 623-7612. We file annual, quarterly and current reports, proxy statements and other information with the SEC. We make available in the investor relations portion of our website, free of charge, copies of our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports after filing these reports to the SEC. Our website is located at www.targetedgenetics.com. You may also inspect and copy the documents that we have filed with the SEC, at prescribed rates, at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. You may obtain information regarding the operation of the Public Reference Room by calling the SEC at 1-

800-SEC-0330. In addition, the SEC maintains a Web site that contains reports, proxy and information statements and other information regarding issuers that file with the SEC at http://www.sec.gov.

Item 2. Properties.

We have leased approximately 49,000 square feet of laboratory, manufacturing and office space in two buildings in Seattle, Washington. The lease on our primary laboratory, manufacturing and office space expires in March 2009 and has one option to renew for a five-year period. The lease on our administrative office space expires in March 2009 and includes two options to extend the lease for a total of five additional years and includes an option to cancel at any time between April 2006 and March 2009 with certain early termination penalties. The Seattle facility is sufficient to support our research, manufacturing and administrative needs under our current operating plan.

In July 2000, we leased approximately 76,000 square feet of space in Bothell, Washington for future large-scale manufacturing of our products. The lease on this facility expires in September 2015 and includes an option for us to extend its term for one additional five-year period. As of December 31, 2002, we had never occupied this facility, and did not have a current need for the facility; therefore, during 2003 we began to pursue ways to secure a sublease tenant. To date, we have not sublet the facility. If we proceed with further development or commercialization of any of our product candidates, we may need to resume use of the Bothell facility to fulfill our manufacturing requirements.

We also have a lease on a 30,000 square foot laboratory and office facility in Sharon Hill, Pennsylvania which expires in November 2005. We assumed this lease following our acquisition of Genovo, Inc. in 2000. In February 2003, we closed our operations in Sharon Hill and began to pursue ways to terminate the lease or to secure a sublease tenant for the remainder of the term.

As of December 31, 2003, we have not been able to terminate the leases or secure sublease tenants for the Bothell or Sharon Hill facilities. As a result, we continue to have an accrued restructure liability for the future lease obligations of these facilities.

Item 3. Legal Proceedings.

We are not a party to any material legal proceedings.

Item 4. Submission of Matters to a Vote of Security Holders.

No matters were submitted to a vote of our security holders during the fourth quarter of 2003.

PART II

Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities.

Market Information. Our common stock trades on the NASDAQ SmallCap Market under the symbol TGEN. From May 20, 1994 until January 8, 2003, our common stock was traded on the NASDAQ National Market, under the symbol TGEN.

The following table lists, for each calendar quarter indicated, the high and low bid quotations for our common stock, as quoted on the NASDAQ SmallCap Market or National Market as applicable. These quotes reflect inter-dealer prices, without retail mark-up or commission, and may not necessarily represent actual transactions.

	High	Low
2003:		
4th Quarter	$ 3.00	$ 1.98
3rd Quarter	3.20	1.59
2nd Quarter	4.43	0.41
1st Quarter	0.70	0.25
2002:		
4th Quarter	$ 1.40	$ 0.30
3rd Quarter	1.19	0.49
2nd Quarter	2.09	1.04
1st Quarter	3.24	1.90

The last reported bid quotation for our common stock, as quoted on the NASDAQ SmallCap Market on March 1, 2004 was $2.32 per share.

Holders. As of March 1, 2004, we had 362 shareholders of record and approximately 26,000 beneficial holders of our common stock.

Dividends. We have never paid cash dividends and do not anticipate paying them in the foreseeable future. In addition, our loan agreement with Biogen restricts the amount of cash dividends we could pay.

Securities Authorized for Issuance under Equity Compensation Plans. The following table lists our equity compensation plans, including individual compensation arrangements, under which equity securities are authorized for issuance as of December 31, 2003:

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available forfuture issuance under equity compensation plans
Equity compensation plans approved by security holders..	4,097,687	$ 3.07	322,927
Equity compensation plans not approved by security holders	2,003,826	3.33	—
Total	6,101,513	$ 3.15	322,927

Under technology licensing, equity financing and equipment financing arrangements, we have issued stock purchase warrants to purchase a total of 2,003,826 shares of our common stock. These are presented in the table above as "Equity compensation plans not approved by security holders" and include:

- In 1999, in connection with a technology license agreement, we issued to Alkermes, Inc. a warrant to purchase 1,000,000 shares of our common stock at an exercise price of $2.50 per share, expiring in June 2007, and a warrant to purchase 1,000,000 shares of our common stock at an exercise price of $4.16 per share, expiring in June 2009.

- We have outstanding warrants to purchase a total of 3,826 shares of our common stock related to a technology license agreement. These warrants have an exercise price of $4.50 per share and expire in March 2004. Warrants to purchase 21,315 shares of our common stock issued in connection with equipment financing expired in December 2003.

In March 2004, our board of directors approved an increase in the number of shares available for issuance under our 1999 Stock Option Plan. Subject to shareholder approval at our annual meeting, the number of shares available for grant under this plan will be increased by 6,000,000 shares to 9,500,000 shares.

Item 6. Selected Financial Data.

	Year Ended December 31,				
	2003 (4)	2002 (3)(4)	2001	2000 (1)(2)	1999 (1)
Statement of Operations Data					
Revenue	$14,073,000	$19,333,000	$18,880,000	$11,403,000	$ 6,848,000
Operating expenses	27,877,000	42,074,000	47,484,000	57,208,000	33,694,000
Loss from operations	(13,804,000)	(22,741,000)	(28,604,000)	(45,805,000)	(26,846,000)
Loss before cumulative effect of change in accounting principle	(14,833,000)	(23,767,000)	(27,170,000)	(43,973,000)	(26,655,000)
Cumulative effect of change in accounting principle	—	—	—	(3,682,000)	—
Net loss	$(14,833,000)	$(23,767,000)	$(27,170,000)	$(47,655,000)	$(26,655,000)
Basic and diluted net loss per share:					
Loss before cumulative effect of change in accounting principle	$ (0.26)	$ (0.52)	$ (0.62)	$ (1.16)	$ (0.83)
Cumulative effect of change in accounting principle	—	—	—	(0.10)	—
Net loss per basic and diluted common share	$ (0.26)	$ (0.52)	$ (0.62)	$ (1.26)	$ (0.83)
Shares used in computing basic and diluted net loss per common share	57,486,000	45,767,000	43,928,000	37,752,000	32,174,000
Proforma amounts assuming the accounting change is applied retroactively:					
Net loss	—	—	—	—	$(24,555,000)
Net loss per common share	—	—	—	—	$ (0.77)

	December 31,				
	2003	2002	2001	2000	1999
Balance Sheet Data					
Cash and cash equivalents	$ 21,057,000	$ 12,606,000	$ 25,186,000	$ 38,630,000	$ 7,153,000
Total assets	57,672,000	52,713,000	71,038,000	87,974,000	13,692,000
Long-term obligations	11,227,000	20,494,000	16,403,000	2,447,000	2,088,000
Preferred stock (5)	12,015,000	12,015,000	12,015,000	12,015,000	12,015,000
Total shareholders' equity (net capital deficiency)	33,479,000	5,896,000	25,386,000	51,417,000	(5,049,000)

(1) Effective January 1, 2000, we changed our method of accounting for nonrefundable up-front license fees.

(2) In 2000, operating expenses include a charge for acquired in-process research and development of $28.0 million recorded in connection with our acquisition of Genovo.

(3) Effective January 1, 2002, we changed our method of accounting for goodwill and other intangible assets and costs associated with exit or disposal activities. See Note 1 of the Notes to our Consolidated Financial Statements.

(4) Operating expenses include restructure charges of $2.3 million in 2002 and $5.2 million in 2003.

(5) As a result of the expiration of the exchange right in April 2003, we have reclassified the Series B preferred stock from mezzanine equity to shareholders' equity.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Overview

We develop gene therapy products and technologies to treat both acquired and inherited diseases on our own and through various research and development collaborations with others. We have financed our product development activities and general corporate functions primarily through proceeds from public and private sales of our equity securities, through cash payments received from our collaborative partners and proceeds from the issuance of debt. To a lesser degree, we have also financed our operations through interest earned on cash and short-term investments, loan funding under equipment leasing agreements and research grants. These financing sources have historically allowed us to maintain adequate levels of cash and investments. A significant portion of our operating expenses has been funded through collaborations with third parties which are summarized as follows:

Ongoing collaborations:

- a collaboration with the International AIDS Vaccine Initiative, or IAVI, to develop an AIDS vaccine, which will conclude in December 2006, unless extended; and
- a development collaboration with the Cystic Fibrosis Foundation, or CF Foundation, established in April 2003 that provides funding to support our current Phase IIb clinical trial for our product candidate for treating cystic fibrosis. Under this collaboration, the CF Foundation is providing funding directly to the sites conducting this study to cover their direct costs of the trial.

Collaborations that ended in 2003 and 2002:

- a multiple-product collaboration with Biogen, Inc., or Biogen, which concluded in September 2003;
- a collaboration with Wyeth Pharmaceuticals, or Wyeth, to develop treatments for hemophilia, which was terminated in February 2003;
- a collaboration with Celltech Group plc, or Celltech, to develop our product candidate for the treatment of cystic fibrosis, which was terminated in November 2002;
- a research and development joint venture with Elan, called Emerald Gene Systems, or Emerald, to develop enhanced gene delivery technologies, which concluded in August 2002; and
- a collaboration with Genzyme to develop treatments for lysosomal storage diseases, which concluded in August 2002.

Our development collaborations have typically provided us with funding, including purchases of our equity securities, loans, payments for reimbursement of research and development costs and milestone fees and payments. We and our partner typically agree on a target disease and create a development plan for the product candidate, which often extends for multiple years and subject to termination or extension. The product candidate's progress is periodically reviewed with the partner. We generally maintain manufacturing and royalty-based interests in successfully developed product candidates.

We have an adeno-associated virus, or AAV-based product candidate under development for treating cystic fibrosis that we have evaluated in a Phase II clinical trial. In June 2003, final data from this repeat dosing trial was presented that indicated that our cystic fibrosis product candidate met safety and tolerability targets. In addition, final data from the Phase II trial indicated a statistically significant improvement in lung function and a decrease in levels of inflammatory cytokine. In July 2003, we initiated a larger confirmatory Phase IIb clinical trial for this cystic fibrosis product candidate. We designed this trial to enroll up to 100 patients and are conducting it in collaboration with the CF Foundation. We expect to complete patient accrual and dosing by the end of 2004.

We are developing an AAV-based vaccine product candidate for high-risk populations to protect against the progression of HIV infection to AIDS in partnership with IAVI, a non-profit organization. In December 2003, we initiated a Phase I initial dose escalation safety trial in humans in Europe, which is designed to enroll up to 50 volunteers who are uninfected with HIV and in good health. Each participant in this trial will receive a single injection of the vaccine candidate and they will be monitored for safety and immune response. We expect to complete the dose-escalation phase of this trial by the end of 2004.

We are also developing an AAV-based product candidate for the treatment of arthritis. In January 2004, we received regulatory approval from the U.S. Food and Drug Administration, or FDA, and Health Canada to begin a Phase I clinical trial and we plan to dose the first patient during the first quarter of 2004. This dose-escalation safety trial is designed to enroll up to 32 patients with rheumatoid arthritis and will be conducted in up to eight sites in the United States and Canada. We will monitor patients for safety and improvements in arthritis signs and symptoms. We expect to complete patient accrual and dosing in this study in the first quarter of 2005. We also have additional product candidates focused on treating cancer and hemophilia, however, we have suspended further development of these programs until we can find other sources of funding for the programs.

We believe that our successes in assembling a broad platform of proprietary intellectual property support our potential to develop and manufacture gene therapy product candidates to treat a range of diseases. We have developed processes to manufacture our potential products using methods and at a scale amenable to clinical development and expandable to large-scale production for advancing our potential products to clinical evaluation and commercialization. These methods are similar to the methods used to manufacture other biologics. As a result, we can evaluate opportunities to utilize excess capacity to manufacture biologics for others companies. In March 2003, we entered into a manufacturing services agreement with GenVec Inc., or GenVec, to conduct initial feasibility studies to evaluate our ability to manufacture clinical supply of GenVec's cancer product candidate, TNFerade™, an adeno-viral-based gene therapy product. In October 2003, we successfully completed this feasibility study and began manufacturing TNFerade™ for clinical use. In January 2004, we completed our manufacturing work for GenVec.

A wide range of diseases potentially may be treated, or prevented, with gene-based products, including cancer, genetic diseases and infectious diseases. We believe that there is also a significant opportunity to treat diseases currently treated using recombinant DNA proteins and monoclonal antibodies or small molecules that may be more effectively treated by gene-based therapies due to their ability to provide a long-term or a localized method of treatment. Our business strategy is to develop multiple gene delivery systems, which we believe will maximize our product opportunities. Using these gene delivery systems, we are developing product candidates across multiple diseases with the belief that gene-based therapies may provide a means to treat disease not fully treatable with current biologic and pharmaceutical drugs. We believe that, if successful, we can establish significant market potential for our product candidates. Because there are no commercially available gene therapy products in the United States, we intend to pursue product development programs to enable us to demonstrate proof of concept and eventually commercialize gene-based therapeutics to address currently unmet medical needs in treating disease.

Although we believe that our technology appears promising, we do not know whether any commercially viable products will result from our research and development efforts or those of our collaborators. We anticipate that we will not generate revenue from the sale of commercial products for at least the next several years. Unless and until we successfully commercialize one or more product candidates, we expect to generate revenue primarily through research funding from our current collaborators, and research funding, milestone payments and licensing fees from potential future corporate collaborators. The timing and amount of our future revenue will be subject to significant fluctuations, based in part on the success of our research activities, the receipt of necessary regulatory approvals, the timing of achievement of milestones and the extent to which associated costs are reimbursed under our collaborative arrangements. Each of our product candidates combines different licensed technology from several licensors. We will have an obligation to our licensors to pay royalties on products that utilize their technologies. Because each product may require a different set of technologies, third-party royalties will be determined and paid on a product-by-product basis. Royalty payment rates may also vary between products depending on the extent of licensed technology or because some technology licenses provide for lower royalties when the licensed technologies

are combined with other royalty-bearing technologies. The royalty payment rates that we owe to our licensors will significantly influence the price and viability of our potential products.

Our research and development expenses fluctuate due to the timing of expenditures for the varying stages of our research, product development and clinical development programs and the availability of capital resources. Because a significant portion of our revenue and expense is directly tied to our research and development activities, our revenue will fluctuate with the level of future research and development activities. We expect that our revenue and expense will continue to fluctuate as we proceed with our current development collaborations, enter into potential new development collaborations and licensing agreements and earn milestone payments.

As of December 31, 2003, our accumulated deficit totaled approximately $217.0 million. We expect to generate substantial additional losses for the foreseeable future, primarily due to the costs associated with our preclinical and clinical development programs, developing our manufacturing capabilities and preparing our products under development for commercialization. Our expenses are driven by the size and scope of our development programs, our staffing levels, outside costs for supplies and materials and clinical trial activities. We significantly decreased our staffing, outside costs and clinical trial activities in late 2002 as a result of terminated collaborations and the need to narrow our focus on key development programs. This led to decrease of approximately 40% in our research and development and general and administrative expenses from 2002 to 2003. We and IAVI have extended our ongoing AIDS vaccine product development collaboration through December 2006 and we expect to receive funding of up to $10.7 million in 2004 to support product development and manufacturing efforts. As a result of the extension and expansion of our IAVI collaboration, and clinical trials for our cystic fibrosis and arthritis product candidates, we expect moderate increases in our expenses in 2004 compared to 2003.

We may be unable to achieve profitability on a sustained basis, if at all. Further, successful development of our product candidates will require that we access significantly higher amounts of capital than we currently have. We may be unable to obtain required funding when needed or on acceptable terms, obtain or maintain corporate partnerships or complete acquisition transactions necessary or desirable to complete the development of our product candidates.

Critical Accounting Policies

Note 1 of the Notes to our Consolidated Financial Statements, "*Description of Business and Summary of Significant Accounting Policies*" summarizes our significant accounting policies that we believe are critical to the presentation of our consolidated financial statements. Our most critical accounting policies are:

Revenue Recognition

We generate revenue from technology licenses, collaborative research arrangements and cost reimbursement agreements. Revenue under technology licenses and collaborative agreements typically consists of nonrefundable, up-front license fees, collaborative research funding, technology access fees and various other payments. Revenue from nonrefundable, up-front license fees and technology access payments is recognized systematically over the related service period, which is often the development period, in the collaborative agreement. Revenue associated with performance milestones is recognized as earned, based upon the achievement of the milestones defined in the applicable agreements. Revenue under research and development cost-reimbursement contracts is recognized as the related costs are incurred. Advance payments received in excess of amounts earned are classified as deferred revenue.

Restructuring Charges Associated with the Reorganization of our Operations

We have adopted the provisions of Statement of Financial Accounting Standards No. 146, or SFAS 146, *"Accounting for Costs Associated with Exit or Disposal Activities,"* as it relates to our facilities in Bothell, Washington and Sharon Hill, Pennsylvania and we have recorded restructure charges on the related operating leases. Accrued restructuring charges, and in particular, those charges associated with exiting a facility, are subject to many assumptions and estimates. Under SFAS 146, an accrued liability for lease termination costs is initially measured at

fair value, based on the remaining lease payments due under the lease and other costs, reduced by sublease rental income that could be reasonably obtained from the property, and discounted using a credit-adjusted risk-free interest rate. The assumptions as to estimated sublease rental income, the period of time and concessions necessary to enter into a sublease significantly impact the accrual and may differ from what actually occurs. We review these estimates quarterly and adjust the accrual if necessary.

If we proceed with further development and commercialization of any of our product candidates, we may need to resume use of the Bothell facility to fulfill our manufacturing requirements. If we decide to resume use of this facility, any remaining accrued restructure charges related to the facility will be reversed. This will be reflected as a one-time credit to restructuring expenses, reflected in the period in which use is resumed. We will continue to evaluate any additional information that may become available with respect to the estimates and assumptions as they relate to these facilities, which may result in further significant charges to our results of operations.

Application of Assumptions and Estimates in Accounting for Acquired In-Process Research and Development Costs and the Valuation of Our Intangible Assets

We have adopted SFAS No. 142, *Goodwill and Other Intangible Assets* as it relates to our goodwill, which consists of acquired technology that is core to our development programs. SFAS No. 142 discontinues the amortization of goodwill and certain indefinite lived intangibles. This accounting standard required us to complete a transitional impairment test upon adoption to determine if an impairment in the value of goodwill existed. We performed a transitional impairment test as of January 1, 2002 and no impairment in the value of our goodwill existed as of that date. In accordance with SFAS No. 142, we test goodwill for impairment in value at least annually and more frequently if impairment indicators arise, and if goodwill is impaired, we will write down the value of goodwill through a charge to expense. We performed annual impairment tests as of October 1, 2003 and October 1, 2002 and concluded that no impairment in the value of our goodwill had occurred.

Our estimates are based on assumptions we believe to be reasonable at the time we perform these estimates. Changes in the underlying assumptions may result in substantially different accounting estimates. For example, when we acquired Genovo in September 2000, we assigned value to the acquired assets on the basis of several estimates and assumptions. Changes in these underlying estimates may result in substantially different allocation of the overall purchase price and the amount of expenses recorded on our balance sheet as acquired in-process property research and development and intangible assets. In addition, we will make assumptions and estimates on a periodic basis when we evaluate the carrying value of goodwill for evidence of impairment and the estimation of costs associated with exit or disposal activities.

Accounting and Presentation For Our Unconsolidated Joint Venture Interest in Emerald

While currently inactive, we own 80.1% of Emerald's common stock and 80.1% of Emerald's preferred stock and Elan owns the remaining 19.9% of Emerald's common and preferred stock. The common stock of Emerald held by Elan is similar in all respects to the common stock held by us, except that those shares held by Elan do not have voting rights. The common shares held by Elan may be converted into voting common shares at Elan's election. Although we currently own 100% of the voting stock, Elan and its subsidiaries have retained significant minority investor rights that are considered "participating rights" under the FASB's EITF Bulletin 96-16, "*Investors' Accounting for an Investee When the Investor Has a Majority of the Voting Interest but the Minority Shareholder Has Certain Approval or Veto Rights*." Because Elan's participating rights prevent us from exercising control over Emerald, we have not consolidated the financial statements of Emerald, but instead have accounted for our investment in Emerald under the equity method of accounting.

In January 2003, the FASB issued FIN No. 46, "*Consolidation of Variable Interest Entities.*" This interpretation of Accounting Research Bulleting No. 51, "*Consolidated Financial Statements*" addresses consolidation of business enterprises of variable interest entities in which: (1) the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, which is provided through other interests that will absorb some or all of the expected losses of the entity and (2) the equity investors lack one or more of certain essential characteristics of a controlling interest. FIN No. 46

applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. In December 2003, the FASB revised FIN No. 46 to modify the effective date for applying this interpretation, which made it effective for us on January 1, 2004. We will adopt the provisions of FIN No. 46 in the first quarter of 2004 and do not expect the provisions of FIN No. 46 to have a significant effect on our financial position or operating results. We are currently evaluating additional disclosures, if any, that may be required for Emerald.

The summary of significant accounting policies should be read in conjunction with our consolidated financial statements and related notes and this discussion of our results of operations and liquidity and capital resources.

Results of Operations

Revenue

Total revenue in 2003 totaled $14.1 million compared to $19.3 million in 2002. This decrease reflects the completion of activities in 2002 under our former collaborations with Wyeth, Celltech, and Emerald, partially offset by higher revenue under our collaboration with Biogen, which ended in September 2003. Revenue in 2003 includes $3.9 million of revenue recognized in 2003 related to the termination of our collaboration with Wyeth and $2.6 million in revenue recognized in connection with the completion of our collaboration with Biogen. The decrease in revenue during 2003 also reflects lower revenue earned under our AIDS vaccine collaboration with IAVI, which resulted from the completion of certain development activities as the program progressed toward the initiation of human clinical trials that began in December 2003. Our deferred revenue decreased from $6.0 million at December 31, 2002 to $1.2 million at December 31, 2003 primarily as the result of recognizing previously deferred revenue at the conclusion of our collaborations with Biogen and Wyeth. Total revenue in 2002 totaled $19.3 million compared to $18.9 million in 2001. This increase in revenue reflects higher revenue earned under our hemophilia product development collaboration with Wyeth and our AIDS vaccine collaboration with IAVI, partially offset by lower revenue earned under our development program with Celltech for the treatment of cystic fibrosis. Development activities for our cystic fibrosis program decreased in 2002 as we transitioned into clinical trial evaluation of data for our initial Phase II trial, the final results of which were presented in June 2003.

	Year Ended December 31,		
	2003	2002	2001
Revenue from collaborative agreements:			
Biogen	$ 5,112,000	$ 2,871,000	$ 2,587,000
IAVI	4,409,000	5,662,000	1,866,000
Wyeth	3,894,000	7,543,000	6,513,000
Celltech	—	1,280,000	5,030,000
Other	658,000	6,000	121,000
Revenue from collaborative agreements	14,073,000	17,362,000	16,117,000
Revenue from collaborative agreement with unconsolidated, majority-owned research and development joint venture	—	1,971,000	2,763,000
Total revenue	$ 14,073,000	$ 19,333,000	$ 18,880,000

Our collaborations with Biogen and Wyeth have concluded and as a result, revenue earned under these collaborations for research and development performed by us will not continue in 2004. As a result, we expect that total revenue in 2004 will be less than 2003. We expect substantially all of our 2004 revenue to consist of research and development revenue from our collaboration with IAVI. Our revenue for the next several years will be dependent on the continuation of our current IAVI collaboration and whether we enter into any new collaborations.

Operating Expenses

Research and Development. Research and development expenses decreased to $17.2 million in 2003 from $29.4 million in 2002. This decrease represents the planned reductions in expenses that we implemented in 2002 and early 2003 and our focus on our cystic fibrosis, AIDS vaccine and arthritis development programs. These reductions included suspension of our hemophilia and cancer programs and reduced investments in our technology development activities. Research and development expenses increased to $29.4 million in 2002 from $29.2 million in 2001. The increase in research and development expense reflects expanded activities in our research and preclinical product development programs for the treatment of hemophilia and arthritis and our AIDS vaccine program, in addition to increased project-related support and technology development activities. These increases were partially offset by lower product and clinical development costs in our cancer and cystic fibrosis programs during 2002.

We expect our research and development expenses to increase in 2004 as the result of expanded development and manufacturing activities for our AIDS vaccine product candidate, our Phase I clinical trial for our rheumatoid arthritis product candidate that we initiated in the first quarter of 2004 and related development activities, and further development work and manufacturing costs associated with our cystic fibrosis development program.

Our research and development expenses for the years ended December 31, 2003, 2002 and 2001 were as follows:

	Year Ended December 31,		
	2003	2002	2001
Programs in clinical development:			
Cystic fibrosis	$ 566,000	$ 1,096,000	$ 2,793,000
Cancer products	14,000	1,714,000	2,942,000
AIDS vaccine (initiated human clinical trial in December 2003)	19,000	—	—
Indirect costs	888,000	2,957,000	6,245,000
Total clinical development program expense	1,487,000	5,767,000	11,980,000
Research and preclinical development program expense	15,710,000	23,622,000	17,238,000
Total research and development expense	$ 17,197,000	$ 29,389,000	$ 29,218,000

Research and development costs attributable to clinical programs include costs of salaries, benefits, clinical trial sites, outside services, materials and supplies incurred to support the clinical programs. Indirect costs allocated to clinical programs include facility and occupancy costs, research and development administrative costs, and license and royalty payments. Costs attributed to research and preclinical programs largely represent our product pipeline-generating activities. Because we conduct multiple research projects and utilize resources across several programs, the majority of our research and preclinical development costs are not directly assigned to individual programs, but are instead allocated among multiple programs. For purposes of reimbursement from our collaboration partners, we capture the level of effort expended on a program through our project management system, which is based primarily on human resource time allocated to each program, supplemented by an allocation of indirect costs and other specifically identifiable costs, if any. As a result, the costs allocated to a program do not necessarily reflect the actual costs of the program.

Costs associated with our clinical development programs decreased in 2003 and 2002 compared to the preceding year reflecting completion of our cystic fibrosis Phase II clinical trial in 2002 as well as our decision in mid-2002 to suspend further development of our cancer product candidates pending the identification of a development partner to help fund development costs. The external costs of our ongoing Phase IIb cystic fibrosis clinical trial are being paid for directly by the CF Foundation. Costs associated with our preclinical program activities decreased to $15.7 million in 2003 compared to $23.6 million 2002 primarily due to decreased activity in our AIDS vaccine program as we prepared to initiate human clinical trials in December 2003. Costs associated with

our preclinical program activities increased to $23.6 million in 2002 compared to $17.2 million in 2001 primarily due to increased activity in our AIDS vaccine program.

The size and scope of our research programs is dependent on the availability of resources, such as funding provided by our partners under our collaborative agreements. During 2004, we expect research and development costs to be somewhat higher than in 2003 as we will be conducting clinical trials in our key development programs.

General and Administrative. We incurred general and administrative expenses of $5.5 million in 2003 compared to $8.1 million in 2002. This decrease primarily reflects lower administrative support for our collaborative partnerships, reduced patent costs due to the consolidation of our patent portfolio and the implementation of cost reduction measures in late 2002 and early 2003. We incurred general and administrative expenses of $8.1 million in 2002 compared to $8.5 million in 2001. The decrease primarily reflects decreased administrative support for our collaborative partnerships and nonrecurring expenses that we incurred in early 2001 in connection with our acquisition of Genovo.

Restructure Charges. We implemented cost reduction measures in December 2002, in response to general business conditions, the lack of additional funding at that time and collaborations that ended, to lower our fixed operating costs and to focus our resources on our key product development programs. As a result, we recorded restructure charges of $2.3 million in 2002 to account for ongoing lease payments related to our abandoned lease facility located in Bothell, Washington, and termination benefits paid to former employees. In addition, we reclassified the deferred rent liability of $1.5 million, related to the Bothell facility, to accrued restructure costs. Therefore, the balance of our accrued restructure liability at December 31, 2002, was $3.4 million.

During 2003, we vacated the Sharon Hill facility and recorded restructure charges for the ongoing lease payments of that facility. We are using a real estate broker to assist us in identifying suitable sublease tenants for both our Bothell and Sharon Hill facilities in response to continued poor market conditions and to assist us in determining reasonable assumptions for subleasing the facilities. During 2003, we have updated our original assumptions to reflect the continued poor market conditions for subleasing the facilities, the additional time that we estimate it will take us to secure sublease tenants and concessions that we believe may be required to secure sublease tenants. In total, we recorded $5.2 million in restructuring charges during 2003 related to these facilities. As of December 31, 2003, our accrued restructure liability balance was $6.9 million.

If we proceed with further development and commercialization of any of our product candidates, we may need to resume use of the Bothell facility to fulfill our manufacturing requirements. If we decide to resume use of this facility, any remaining restructuring accrual related to the facility will be reversed. This will be reflected as a one-time credit to restructuring charges, reflected in the period in which use is resumed. Any decision to resume use of the facility will be based on a number of factors including the progress of our product candidates in clinical development, the estimated duration of design and construction, the estimated timing of manufacturing requirements, the ability of our current manufacturing capabilities to meet demand and the availability of resources. Unless a decision is made to resume use of this facility, we will continue to evaluate any additional information that may become available with respect to the estimates and assumptions, which may result in further significant charges to our results of operations.

Equity in Net Loss of Unconsolidated, Majority-Owned Research and Development Joint Venture. Our net loss in Emerald decreased to zero in 2003, compared to a loss of $1.9 million in 2002 and $3.7 million in 2001. Losses reflect our 80.1% equity share in the losses generated by Emerald. Emerald's initial development period concluded in August 2002 and no further operating activities have been performed. As a result, we do not expect that losses resulting from our equity in the net loss of Emerald will be significant in the future.

Amortization of Acquisition-Related Intangibles. Amortization expense decreased to zero in 2003, compared to $365,000 in 2002 as our intangible assets that were subject to amortization were fully amortized as of September 30, 2002. We recorded amortization expense of $365,000 in 2002 for non-competition agreements acquired in connection with our acquisition of Genovo in 2000, compared to $6.1 million in 2001 to amortize Genovo goodwill,

non-competition agreements and assembled workforce. This decrease is the result of our adoption of SFAS No. 142, "*Goodwill and Other Intangible Assets*," as of January 1, 2002, under which most goodwill is no longer amortized.

Other Income and Expense

Investment Income. Investment income was $183,000 in 2003 compared to $398,000 in 2002. This decrease resulted from lower investment returns and a lower yield from our short-term bond mutual fund. Investment income was $398,000 in 2002, compared to $1.9 million in 2001. This decrease resulted from lower average cash balances during the period and decreases in the yield of our short-term bond mutual fund.

Interest Expense. Interest expense relates to interest on outstanding loans from our collaborative partners, notes and obligations under equipment financing arrangements and installment loans we use to finance purchases of laboratory and computer equipment, furniture and leasehold improvements. Interest expense decreased to $1.2 million in 2003 from $1.4 million in 2002. This decrease resulted from lower debt balances due to the conversion of $9.4 million owed to Elan into equity. Interest expense increased to $1.4 million in 2002 from $452,000 in 2001. This increase resulted from higher average debt balances in 2002 due to borrowings under loan commitments from Biogen and Elan.

Liquidity and Capital Resources

Our cash and cash equivalents increased to $21.1 million at December 31, 2003, compared to $12.6 million at December 31, 2002. Our principal sources of cash were $21.0 million in net proceeds from the issuance of shares of our common stock in June and August 2003. The principal uses of cash were $11.2 million for operations and $1.3 million in scheduled debt payments. In February 2004, we completed the sale of approximately 10.9 million shares of our common stock at a price of $2.35 per share and received net proceeds of $23.8 million.

Our shareholders' equity increased to $33.5 million at December 31, 2003, compared to $5.9 million at December 31, 2002. This increase includes $21.0 million from sale of common stock, $9.4 million from the conversion of debt payable to Elan into 5,203,244 shares of our common stock and the reclassification of $12.0 million of Series B convertible preferred stock from mezzanine equity to shareholders' equity. This reclassification was the result of the expiration of Elan's right to exchange the Series B preferred stock for all shares of preferred stock that we hold in Emerald.

We have financed our product development activities and general corporate functions primarily through proceeds from public and private sales of our equity securities, through cash payments received from our collaborative partners and proceeds from the issuance of debt. To a lesser degree, we have also financed our operations through interest earned on cash and short-term investments, loan funding under equipment leasing agreements and research grants. These financing sources have historically allowed us to maintain adequate levels of cash and investments.

Our cystic fibrosis product candidate is in a confirmatory Phase II clinical trial and our AIDS vaccine candidate is in a Phase I clinical trial. We expect to dose the first patient in a Phase I clinical trial for our rheumatoid arthritis product candidate during the first quarter of 2004. We expect to continue incurring significant expense in advancing our product candidates toward commercialization. As a result, we do not expect to generate sustained positive cash flow from our operations for at least the next several years and only then if we can successfully develop and commercialize our product candidates. We will require substantial additional financial resources to fund the development and commercialization of our product candidates and expand research and development of our product candidates for treating additional diseases.

Over the past several years, we have scaled our development activities to the level of available cash resources and financial support from collaboration partners. Research and development and general and administrative expenses decreased by approximately 40 percent in 2003, compared to 2002 and reflect the Company's focus on its lead development programs. We expect to maintain this focus in 2004 and we believe that our cash needs will increase by approximately 20% to support the advancement of our clinical development

programs. During 2003, we received funding from our collaborators totaling approximately $8.5 million. We expect to continue to receive financial support for specific programs to offset some of the costs of development.

We have an ongoing collaboration with IAVI and Children's Research Institute to develop an AIDS vaccine. The term of this collaboration has been extended through December 2006. Assuming that we complete all of the planned development activities, we expect to receive up to $10.7 million in funding from IAVI to cover the costs of this program in 2004. We also have a collaboration with the CF Foundation related to our current Phase II clinical trial for our product candidate for treating cystic fibrosis. Under this collaboration, the CF Foundation is providing funding to the sites conducting this study to cover their direct costs of the trial.

We expect that our cash and cash equivalents at December 31, 2003, plus the $23.8 million of proceeds from our equity financing completed in February 2004 and the funding expected from IAVI to fund 2004 work activities under our AIDS vaccine collaboration will be sufficient to fund our operations until at least the beginning of 2006. We believe that this will be sufficient time to complete each of our current clinical trials, evaluate the results, and assuming satisfactory results, to initiate further clinical testing. Although our development collaboration with IAVI has been extended through the end of 2006, the development plan and budget under the collaboration is established on an annual basis. While we expect this program to continue through at least the duration of the collaboration term, we have not established the work plan and budget for 2005 and 2006 with IAVI and have therefore not yet made an assumption as to the level of funding that we may receive from IAVI in 2005 and 2006.

We expect the level of our future operating expenses to be driven by the needs of our product development programs balanced by the availability of funds through partner funded collaborations, equity offerings or other financing activities. The size, scope and pace of our development activities depend on the availability of these resources. Our future cash requirements will depend on many factors, including:

- the rate and extent of scientific progress in our research and development programs;
- the timing, costs and scope of, and our success in, clinical trials, obtaining regulatory approvals and filing, prosecuting and enforcing patents;
- competing technological and market developments;
- the timing and costs of, and our success in, any product commercialization activities and facility expansions, if and as required; and
- the expense and outcome of any litigation or administrative proceedings involving our intellectual property, or access to third party intellectual property through licensing agreements.

IAVI has the right to terminate our collaboration and its obligation to provide research funding at any time for any reason with 90 days notice. If we were to lose the collaborative funding expected from IAVI and were unable to obtain alternative sources of funding for the AIDS vaccine product candidate, we may be unable to continue our research and development program for that product candidate. The CF Foundation has the right to terminate our funding agreement at any time for any reason. If we were to lose the funding for our confirmatory Phase II clinical trial from the CF Foundation and were unable to obtain alternative sources of funding to continue the trial, we may choose not to complete it.

We are evaluating other opportunities to obtain additional capital to fund our future operations. Additional sources of financing could involve one or more of the following:

- entering into additional product development and funding collaborations or other strategic transactions, or extending or expanding our current collaborations;
- selling or licensing our technology or product candidates;

- issuing equity in the public or private markets; or

- issuing debt.

Additional funding may not be available to us on reasonable terms, if at all. Depending on our ability to successfully access additional funding, we may be forced to implement significant cost reduction measures. These adjustments may include scaling back, delaying or terminating one or more research and development programs, curtailing capital expenditures or reducing other operating activities. We may also be required to relinquish some rights to our technology or product candidates or grant licenses on unfavorable terms, either of which would reduce the ultimate value to us of the technology or product candidates.

Tabular Disclosure of Contractual Obligations

We have significant lease commitments and long-term obligations which draw on our cash resources. The following are our contractual commitments associated with our debt and lease obligations:

	Payments Due through Year Ended December 31:						
Contractual Obligations	2004	2005	2006	2007	2008	Thereafter	Total
Long-term debt obligations	$ 65,000	$ 590,000	$ 10,000,000	$ —	$ —	$ —	$ 10,655,000
Equipment financing obligations	864,000	484,000	140,000	13,000	—	—	1,501,000
Operating lease obligations	2,526,000	2,436,000	2,318,000	2,345,000	2,373,000	10,817,000	22,815,000
Purchase obligations	40,000	—	—	—	—	—	40,000
Other long-term obligations	361,000	—	—	—	—	—	361,000
Total	$ 3,856,000	$ 3,510,000	$ 12,458,000	$ 2,358,000	$2,373,000	$10,817,000	$ 35,372,000

Long-term obligations decreased from $20.5 million at December 31, 2002 to $11.2 million at December 31, 2003. In September 2003, we converted $9.4 million in outstanding debt and interest payable to Elan into approximately 5.2 million shares of our common stock. We will need to raise additional capital in order to repay the $10.0 million of notes payable to Biogen that is due in August 2006.

Impact of New Accounting Pronouncements

In July 2000, the Financial Accounting Standards Board, or FASB, issued Emerging Issues Task Force, or EITF, Issue No. 00-21, *"Revenue Arrangements with Multiple Deliverables."* This issue addresses accounting for revenue under agreements with multiple revenue-generating activities and became effective for revenue arrangements entered into after September 1, 2003. We will adopt the provisions of EITF No. 00-21 for any new revenue arrangements and do not expect the provisions of EITF No. 00-21 to have a significant effect on our financial position or operating results.

In January 2003, the FASB issued FIN No. 46, *"Consolidation of Variable Interest Entities."* This interpretation of Accounting Research Bulleting No. 51, *"Consolidated Financial Statements"* addresses consolidation of business enterprises of variable interest entities in which: (1) the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, which is provided through other interests that will absorb some or all of the expected losses of the entity and (2) the equity investors lack one or more of certain essential characteristics of a controlling interest. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. In December 2003, the FASB revised FIN No. 46 to modify the effective date for applying this interpretation, which made it effective for us on January 1, 2004. We will adopt the provisions of FIN No. 46 in the first quarter of 2004 and do not expect the provisions of FIN No. 46 to have a significant effect on our financial position or operating results. We are currently evaluating additional disclosures, if any, that may be required for Emerald.

In December 2003, the Securities and Exchange Commission, or SEC, released Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition*. The staff updated and revised the existing revenue recognition guidance to

make its interpretive guidance consistent with current accounting guidance. We do not expect the provisions of SAB No. 104 to have a significant effect on our financial position or operating results.

Factors Affecting Our Operating Results, Our Business and Our Stock Price

In addition to the other information contained in this annual report, you should carefully read and consider the following risk factors. If any of these risks actually occur, our business, operating results or financial condition could be harmed. This could cause the trading price of our stock to decline, and you could lose all or part of your investment.

Risks Related to Our Business

We expect to continue to operate at a loss and may never become profitable, which could result in a decline in the value of our common stock and a loss of your investment.

Substantially all of our revenue has been derived under collaborative research and development agreements relating to the development of our potential product candidates. We have incurred, and will continue to incur for the foreseeable future, significant expense to develop our research and development programs, conduct preclinical studies and clinical trials, seek regulatory approval for our product candidates and provide general and administrative support for these activities. As a result, we have incurred significant net losses since inception, and we expect to continue to incur substantial additional losses in the future. As of December 31, 2003, we had an accumulated deficit of approximately $217 million. We may never generate profits and, if we do become profitable, we may be unable to sustain or increase profitability.

All of our product candidates are in early-stage clinical trials or preclinical development, and if we are unable to successfully develop and commercialize our product candidates we will be unable to generate sufficient capital to maintain our business.

In July 2003, we initiated a confirmatory Phase II clinical trial for our cystic fibrosis product candidate. In December 2003, we initiated a Phase I trial for our AIDS vaccine in Belgium. We also plan to dose the first patient in our rheumatoid arthritis product candidate Phase I clinical trial during the first quarter of 2004. Our product candidates for cancer have been evaluated in Phase I and Phase II clinical trials. In connection with the operational changes that we implemented in 2002 and the termination of our collaboration with Wyeth in February 2003, we suspended further development of our cancer and hemophilia product development programs. We will not generate any product revenue for at least several years and then only if we can successfully develop and commercialize our product candidates. Commercializing our potential products depends on successful completion of additional research and development and testing, in both preclinical development and clinical trials. Clinical trials may take several years or more to complete. The commencement, cost and rate of completion of our clinical trials may vary or be delayed for many reasons, including the risks discussed elsewhere in this section. If we are unable to successfully complete preclinical and clinical development of some or all of our product candidates in a timely manner, we may be unable to generate sufficient product revenue to maintain our business.

Even if our potential products succeed in clinical trials and are approved for marketing, these products may never achieve market acceptance. If we are unsuccessful in commercializing our product candidates for any reason, including greater effectiveness or economic feasibility of competing products or treatments, the failure of the medical community or the public to accept or use any products based on gene delivery, inadequate marketing and distribution capabilities or other reasons discussed elsewhere in this section, we will be unable to generate sufficient product revenue to maintain our business.

The regulatory approval process for our product candidates is costly, time-consuming and subject to unpredictable changes and delays, and our product candidates may never receive regulatory approval.

To our knowledge, no gene therapy products have received regulatory approval for marketing from the FDA. Because our product candidates involve new and unproven technologies, we believe that the regulatory approval

process may proceed more slowly compared to clinical trials involving traditional drugs. The FDA and applicable state and foreign regulators must conclude at each stage of clinical testing that our clinical data suggest acceptable levels of safety in order for us to proceed to the next stage of clinical trials. In addition, gene therapy clinical trials conducted at institutions that receive funding for recombinant DNA research from the National Institutes of Health, or NIH, are subject to review by the NIH's Office of Biotechnology Activities Recombinant DNA Advisory Committee, or RAC. Although NIH guidelines do not have regulatory status, the RAC review process can impede the initiation of the trial, even if the FDA has reviewed the trial and approved its initiation. Moreover, before a clinical trial can begin at an NIH-funded institution, that institution's Institutional Biosafety Committee must review the proposed clinical trial to assess the safety of the trial.

The regulatory process for our product candidates is costly, time-consuming and subject to unpredictable delays. The clinical trial requirements of the FDA, NIH and other agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate vary substantially according to the type, complexity, novelty and intended use of the potential products. In addition, regulatory requirements governing gene and cell therapy products have changed frequently and may change in the future. Accordingly, we cannot predict how long it will take or how much it will cost to obtain regulatory approvals for clinical trials or for manufacturing or marketing our potential products. Some or all of our product candidates may never receive regulatory approval. A product candidate that appears promising at an early stage of research or development may not result in a commercially successful product. Our clinical trials may fail to demonstrate the safety and efficacy of a product candidate or a product candidate may generate unacceptable side effects or other problems during or after clinical trials. Should this occur, we may have to delay or discontinue development of the product candidate, and the corporate partner that supports development of that product candidate may terminate its support. Delay or failure to obtain, or unexpected costs in obtaining, the regulatory approval necessary to bring a potential product to market could decrease our ability to generate sufficient product revenue to maintain our business.

If we are unable to raise additional capital when needed, we will be unable to conduct our operations and develop our potential products.

Because internally generated cash flow will not fund development and commercialization of our product candidates, we will require substantial additional financial resources. Our future capital requirements will depend on many factors, including:

- the rate and extent of scientific progress in our research and development programs;
- the timing, costs and scope of, and our success in, conducting clinical trials, obtaining regulatory approvals and pursuing patent prosecutions;
- competing technological and market developments;
- the timing and costs of, and our success in, any commercialization activities and facility expansions, if and as required; and
- the existence and/or outcome of any litigation or administrative proceedings involving our intellectual property.

As of December 31, 2003, we had approximately $21.1 million in cash and cash equivalents. We expect that our cash resources at December 31, 2003, plus the proceeds from our equity financing completed in February 2004 and the funding expected from IAVI to fund 2004 work activities under our AIDS vaccine collaboration will be sufficient to fund our operations until at least the beginning of 2006. We are evaluating opportunities to obtain additional capital to fund our operations beyond that time. Additional sources of financing could involve one or more of the following:

- extending or expanding our current collaborations;

- entering into additional product development collaborations;
- selling or licensing our technology or product candidates;
- issuing equity; or
- issuing debt.

Additional funding may not be available to us on reasonable terms, if at all.

The funding that we expect to receive from IAVI depends on continued scientific progress under the collaboration and IAVI's ability and willingness to continue or extend the collaboration. If we are unable to successfully access additional capital, we may need to scale back, delay or terminate one or more of our key development programs, curtail capital expenditures or reduce other operating activities. We may also be required to relinquish some rights to our technology or product candidates or grant or take licenses on unfavorable terms, either of which would reduce the ultimate value to us of our technology or product candidates.

If we are unable to obtain or maintain licenses for necessary third-party technology on acceptable terms or to develop alternative technology, we may be unable to develop and commercialize our product candidates.

We have entered into exclusive and nonexclusive license agreements that give us and our partners rights to use technologies owned or licensed by commercial and academic organizations in the research, development and commercialization of our potential products. For example, we have a Gene Transfer Technology License Agreement with Amgen as the successor to Immunex under which we have license rights to certain Immunex proprietary technology specifically applicable to gene therapy applications. In a February 2004 letter, Amgen has taken the position that we are not licensed, either exclusively or non-exclusively, under Immunex intellectual property covering TNFR:Fc or therapeutic uses for TNFR:Fc. We have responded with a letter confirming our confidence that the Gene Transfer Technology License Agreement gives us an exclusive worldwide license to use the gene construct coding for TNFR:Fc for gene therapy applications. We expect to have further communications with Amgen regarding our differences. Notwithstanding our confidence, it is possible that a resolution of those differences, through litigation or otherwise, could cause delay or discontinuation of our development of tgAAC94 or our inability to commercialize any resulting product.

We believe that we will need to obtain additional licenses to use patents and unpatented technology owned or licensed by others for compositions, methods, processes to manufacture compositions, processes to manufacture and purify gene delivery product candidates and other technologies and processes for our present and potential product candidates. If we are unable to maintain our current licenses for third-party technology or obtain additional licenses on acceptable terms, we may be required to expend significant time and resources to develop or license replacement technology. If we are unable to do so, we may be unable to develop or commercialize the affected product candidates. In addition, the license agreements for technology for which we hold exclusive licenses typically contain provisions that require us to meet minimum development milestones in order to maintain the license on an exclusive basis for some or all fields of the license. We also have license agreements for some of our technologies, which may require us to sublicense certain of our rights. If we do not meet these requirements, our licensor may convert all or a portion of the license to a nonexclusive license or in some cases, terminate the license.

In many cases, patent prosecution of our licensed technology is controlled solely by the licensor. If our licensors fail to obtain and maintain patent or other protection for the proprietary intellectual property we license from them, we could lose our rights to the intellectual property or our exclusivity with respect to those rights, and our competitors could market competing products using the intellectual property. Licensing of intellectual property is of critical importance to our business and involves complex legal, business and scientific issues and is complicated by the rapid pace of scientific discovery in our industry. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;

- the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;

- the sublicensing of patent and other rights under our collaborative development relationships;

- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and

- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

Litigation involving intellectual property, product liability or other claims and product recalls could strain our resources, subject us to significant liability, damage our reputation or result in the invalidation of our proprietary rights.

As our product development efforts progress, especially in potentially significant markets such as AIDS or rheumatoid arthritis therapies, the risk increases that others may claim that our processes and potential products infringe on their intellectual property rights. In addition, administrative proceedings, litigation or both may be necessary to enforce our intellectual property rights or determine the rights of others. Defending or pursuing these claims, regardless of their merit, would be costly and would likely divert management's attention and resources away from our operations. If there were to be an adverse outcome in litigation or an interference proceeding, we could face potential liability for significant damages or be required to obtain a license to the patented process or technology at issue, or both. If we are unable to obtain a license on acceptable terms, or to develop or obtain alternative technology or processes, we may be unable to manufacture or market any product or potential product that uses the affected process or technology.

Clinical trials and the marketing of any potential products may expose us to liability claims resulting from the testing or use of our products. Gene therapy treatments are new and unproven, and potential known and unknown side effects of gene therapy may be serious and potentially life-threatening. Product liability claims may be made by clinical trial participants, consumers, healthcare providers or other sellers or users of our products. Although we currently maintain liability insurance, the costs of product liability and other claims against us may exceed our insurance coverage. In addition, we may require increased liability coverage as additional product candidates are used in clinical trials and commercialized. Liability insurance is expensive and may not continue to be available on acceptable terms. A product liability or other claim or product recall not covered by or exceeding our insurance coverage could significantly harm our financial condition. In addition, adverse publicity resulting from a product recall or a liability claim against us, one of our partners or another gene therapy company could significantly harm our reputation and make it more difficult to obtain the funding and collaborative partnerships necessary to maintain our business.

If we lose either IAVI or the CF Foundation as partners or if our collaborative relationships are unsuccessful, we may be unable to develop our potential products.

A significant portion of our operating and clinical trial expenses are funded through our collaborative agreements with IAVI and, to a lesser extent, the CF Foundation. We have a collaborative development agreement with IAVI, which expires in December 2006 that we expect to provide us with funding to reimburse research and development and manufacturing expenses we incurred in connection with the collaboration. In addition, our collaboration with IAVI provides funding for our Phase I clinical trial for our AIDS vaccine candidate. We also have a collaboration with the CF Foundation related to our current confirmatory Phase II clinical trial for our product candidate for treating cystic fibrosis. Under this collaboration, the CF Foundation is providing funding to the sites conducting this study to cover their direct costs of the trial.

If we were to lose the collaborative funding relationship with IAVI and were unable to obtain alternative sources of funding for the AIDS vaccine product candidate covered by the IAVI collaboration, we may be unable to continue our research and development or clinical program for this product candidate. If we were to lose funding for our confirmatory Phase II clinical trial from the CF Foundation and were unable to obtain alternative sources of funding to continue the trial, we may choose not to complete it. In addition, the loss of significant amounts of collaborative or clinical trial funding could cause the delay, reduction or termination of the related research and development programs, and a reduction in capital expenditures and other operating activities necessary to support general operations. Such a reduction could further impede our ability to develop our product candidates. IAVI has the right to terminate the collaboration or its obligation to provide funding at any time for any reason with 90 days' notice. The CF Foundation has the right to terminate our funding agreement at any time for any reason. Termination of our IAVI collaboration would significantly affect our operating activities and termination of our CF Foundation collaboration could significantly affect the development of our cystic fibrosis product candidate.

If our partners or scientific consultants terminate, reduce or delay our relationships with them, we may be unable to develop our potential products.

Our partners provide funding, manage regulatory filings, aid and augment our internal research and development efforts and provide access to important intellectual property and know-how. Their activities include, for example, support in the processing of the regulatory filings our product candidates and funding of clinical trials. Our outside scientific consultants and contractors perform research, develop technology and processes to advance and augment our internal efforts and provide access to important intellectual property and know-how. Their activities include, for example, clinical evaluation of our product candidates, product development activities performed under our research collaborations, research under sponsored research agreements and contract manufacturing services. Collaborations with established pharmaceutical and biotechnology companies and academic, research and public health organizations, often provide a measure of validation of our product development efforts in the eyes of securities analysts, investors and the medical community. The development of certain of our potential products, and therefore the success of our business, depends on the performance of our partners, consultants and contractors. If they do not dedicate sufficient time, regulatory or other technical resources to the research and development programs for our product candidates or if they do not perform their obligations as expected, we may experience delays in, and may be unable to continue, the preclinical or clinical development of those product candidates. Each of our collaborations and scientific consulting relationships concludes at the end of the term specified in the applicable agreement unless we and our partners agree to extend the relationship. Any of our partners may decline to extend the collaboration, or may be willing to extend the collaboration only with a significantly reduced scope, for a number of scientific or business reasons. Competition for scientific consultants and partners in gene therapy is intense. We may be unable to successfully maintain our existing relationships or establish additional relationships necessary for the development of our product candidates on acceptable terms, if at all. If we are unable to do so, our research and development programs may be delayed or we may lose access to important intellectual property or know-how.

If we do not attract and retain qualified personnel, we may be unable to develop and commercialize some of our potential products.

Our future success depends in large part on our ability to attract and retain key technical and management personnel. All of our employees, including our executive officers, can terminate their employment with us at any time. We have programs in place designed to retain personnel, including competitive compensation packages and programs to create a positive work environment. Other companies, research and academic institutions and other organizations in our field compete intensely for employees, however, and we may be unable to retain our existing personnel or attract additional qualified employees and consultants. If we experience significant turnover or difficulty in recruiting new personnel, our research and development of product candidates could be delayed and we could experience difficulty in generating sufficient revenue to maintain our business.

The success of our clinical trials and preclinical studies may not be indicative of results in a large number of patients or predictive of long-term efficacy.

The successful results of our technology in preclinical studies using animal models may not be predictive of the results that we will see in our clinical trials. In addition, results in early-stage clinical trials are based on limited numbers of patients and generally test for drug safety rather than efficacy. Our reported progress and results from our early phases of clinical testing of our product candidates may not be indicative of progress or results that will be achieved from larger populations, which could be less favorable. Moreover, we do not know if the favorable results we have achieved in clinical trials will have a lasting effect. If a larger group of patients does not experience positive results, or if any favorable results do not demonstrate a beneficial effect, our product candidate for cystic fibrosis, or any other potential products that we advance to clinical trials, may not receive approval from the FDA for further clinical trials or commercialization. Any report of clinical trial results that are below the expectations of financial analysts or investors could result in a decline in our stock price.

Failure to recruit patients could delay or prevent clinical trials of our potential products, which could delay or prevent the development of potential products.

Identifying and qualifying patients to participate in clinical trials of our potential products is critically important to our success. The timing of our clinical trials depends on the speed at which we can recruit patients to participate in testing our product candidates. We have experienced delays in some of our clinical trials, and we may experience similar delays in the future. If patients are unwilling to participate in our gene therapy trials because of negative publicity from adverse events in the biotechnology or gene therapy industries or for other reasons, including competitive clinical trials for similar patient populations, the timeline for recruiting patients, conducting trials and obtaining regulatory approval of potential products will be delayed. These delays could result in increased costs, delays in advancing our product development, delays in testing the effectiveness of our technology or termination of the clinical trials altogether.

We may be unable to adequately protect our proprietary rights domestically or overseas, which may limit our ability to successfully market any product candidates.

Our success depends substantially on our ability to protect our proprietary rights and operate without infringing on the proprietary rights of others. We own or license patents and patent applications, and may need to license additional patents, for genes, processes, practices and techniques critical to our present and potential product candidates. If we fail to obtain and maintain patent or other intellectual property protection for this technology, our competitors could market competing products using those genes, processes, practices and techniques. The patent process takes several years and involves considerable expense. In addition, patent applications and patent positions in the field of biotechnology are highly uncertain and involve complex legal, scientific and factual questions. Our patent applications may not result in issued patents and the scope of any patent may be reduced both before and after the patent is issued. Even if we secure a patent, the patent may not provide significant protection and may be circumvented or invalidated.

We also rely on unpatented proprietary technology and technology that we have licensed on a nonexclusive basis. While we take precautions to protect our proprietary unpatented technology, we may be unable to meaningfully protect this technology from unauthorized use or misappropriation by a third party. Our competitors could also obtain rights to our nonexclusively licensed proprietary technology. In any event, other companies may independently develop substantially equivalent proprietary information and techniques. If our competitors develop and market competing products using our unpatented or nonexclusively licensed proprietary technology or substantially similar technology, our products, if successfully developed, could suffer a reduction in sales or be forced out of the market.

If we do not develop adequate manufacturing, sales, marketing and distribution capabilities, either alone or with our business partners, we will be unable to generate sufficient product revenue to maintain our business.

We currently do not have the physical capacity to manufacture large-scale quantities of our potential products. This could limit our ability to conduct large clinical trials of a product candidate and to commercially launch a successful product candidate. In order to manufacture product at such scale, we will need to expand or improve our current facilities and staff or supplement them through the use of contract providers. If we are unable to obtain and maintain the necessary manufacturing capabilities, either alone or through third parties, we will be unable to manufacture our potential products in quantities sufficient to sustain our business. Moreover, we are unlikely to become profitable if we, or our contract providers, are unable to manufacture our potential products in a cost-effective manner.

In addition, we have no experience in sales, marketing and distribution. To successfully commercialize any products that may result from our development programs, we will need to develop these capabilities, either on our own or with others. We intend to enter into collaborations with other entities to utilize their mature marketing and distribution capabilities, but we may be unable to enter into marketing and distribution agreements on favorable terms, if at all. If our current or future collaborative partners do not commit sufficient resources to timely marketing and distributing our future products, if any, and we are unable to develop the necessary marketing and distribution capabilities on our own, we will be unable to generate sufficient product revenue to sustain our business.

Post-approval manufacturing or product problems or failure to satisfy applicable regulatory requirements could prevent or limit our ability to market our products.

Commercialization of any products will require continued compliance with FDA and other federal, state and local regulations. For example, our current manufacturing facility, which is designed for manufacturing our AAV vectors for clinical and development purposes, is subject to the Good Manufacturing Practices requirements and other regulations of the FDA, as well as to other federal, state and local regulations such as the Occupational Health and Safety Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act and the Environmental Protection Act. Any future manufacturing facilities that we may construct for large-scale commercial production will also be subject to regulation. We may be unable to obtain regulatory approval for or maintain in operation this or any other manufacturing facility. In addition, we may be unable to attain or maintain compliance with current or future regulations relating to manufacture, safety, handling, storage, record keeping or marketing of potential products. If we fail to comply with applicable regulatory requirements or discover previously unknown manufacturing, contamination, product side effects or other problems after we receive regulatory approval for a potential product, we may suffer restrictions on our ability to market the product or be required to withdraw the product from the market.

Risks Related to Our Industry

Adverse events in the field of gene therapy could damage public perception of our potential products and negatively affect governmental approval and regulation.

Public perception of our product candidates could be harmed by negative events in the field of gene therapy. For example, in late 2002, two patients in a French academic clinical study being treated for x-linked severe combined immunodeficiency in a gene therapy trial using a retroviral vector developed leukemia. Patient deaths, related and unrelated to gene therapy, have occurred in other clinical trials. These adverse events and the resulting publicity, as well as any other adverse events in the field of gene therapy that may occur in the future, could result in a decrease in demand for any products that we may develop. The commercial success of our product candidates will depend in part on public acceptance of the use of gene therapy for preventing or treating human diseases. If public perception is influenced by claims that gene therapy is unsafe, our product candidates may not be accepted by the general public or the medical community. The public and the medical community may conclude that our technology is unsafe.

Future adverse events in gene therapy or the biotechnology industry could also result in greater governmental regulation, unfavorable public perception, stricter labeling requirements and potential regulatory delays in the testing or approval of our potential products. Any increased scrutiny could delay or increase the costs of our product development efforts or clinical trials.

Our use of hazardous materials exposes us to liability risks and regulatory limitations on their use, either of which could reduce our ability to generate product revenue.

Our research and development activities involve the controlled use of hazardous materials, including chemicals, biological materials and radioactive compounds. Our safety procedures for handling, storing and disposing of these materials must comply with federal, state and local laws and regulations, including, among others, those relating to solid and hazardous waste management, biohazard material handling, radiation and air pollution control. We may be required to incur significant costs in the future to comply with environmental or other applicable laws and regulations. In addition, we cannot eliminate the risk of accidental contamination or injury from hazardous materials. If a hazardous material accident were to occur, we could be held liable for any resulting damages, and this liability could exceed our financial resources. Accidents unrelated to our operations could cause federal, state or local regulatory agencies to restrict our access to hazardous materials needed in our research and development efforts, which could result in delays in our research and development programs. Paying damages or experiencing delays caused by restricted access could reduce our ability to generate revenue and make it more difficult to fund our operations.

The intense competition and rapid technological change in our market may result in pricing pressures and failure of our potential products to achieve market acceptance.

We face increasingly intense competition from a number of commercial entities and institutions that are developing gene therapy and cell therapy technologies. Our competitors include early-stage and more established gene delivery companies, other biotechnology companies, pharmaceutical companies, universities, research institutions and government agencies developing gene therapy products or other biotechnology-based therapies designed to treat the diseases on which we focus. We also face competition from companies using more traditional approaches to treating human diseases, such as surgery, medical devices and pharmaceutical products. As our product candidates become commercial gene therapy products that may affect commercial markets of the analogous protein or traditional pharmaceutical therapy, disputes including lawsuits, demands, threats or patent challenges may arise in an effort to slow our development. In addition, we compete with other companies to acquire products or technology from research institutions or universities. Many of our competitors have substantially more financial and infrastructure resources and larger research and development staffs than we do. Many of our competitors also have greater experience and capabilities than we do in:

- research and development;
- clinical trials;
- obtaining FDA and other regulatory approvals;
- manufacturing; and
- marketing and distribution.

In addition, the competitive positions of other companies, institutions and organizations, including smaller competitors, may be strengthened through collaborative relationships. Consequently, our competitors may be able to develop, obtain patent protection for, obtain regulatory approval for, or commercialize new products more rapidly than we do, or manufacture and market competitive products more successfully than we do. This could limit the prices we could charge for the products that we are able to market or result in our products failing to achieve market acceptance.

Gene therapy is a rapidly evolving field and is expected to continue to undergo significant and rapid technological change and competition. Rapid technological development by our competitors, including development of technologies, products or processes that are more effective or more economically feasible than those we have developed, could result in our actual and proposed technologies, products or processes losing market share or becoming obsolete.

Healthcare reform measures and the unwillingness of third-party payors to provide adequate reimbursement for the cost of our products could impair our ability to successfully commercialize our potential products and become profitable.

Sales of medical products and treatments depends substantially, both domestically and abroad, on the availability of reimbursement to the consumer from third-party payors. Our potential products may not be considered cost-effective by third-party payors, who may not provide coverage at the price set for our products, if at all. If purchasers or users of our products are unable to obtain adequate reimbursement, they may forego or reduce their use of our products. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment.

Increasing efforts by governmental and third-party payors, such as Medicare, private insurance plans and managed care organizations, to cap or reduce healthcare costs will affect our ability to commercialize our product candidates and become profitable. We believe that third-party payors will attempt to reduce healthcare costs by limiting both coverage and level of reimbursement for new products approved by the FDA. There have been and will continue to be a number of federal and state proposals to implement government controls on pricing, the adoption of which could affect our ability to successfully commercialize our product candidates. Even if the government does not adopt any such proposals or reforms, their announcement could impair our ability to raise capital.

Risks Related to Our Common Stock

Concentration of ownership of our common stock may give certain shareholders significant influence over our business and the ability to disproportionately affect our stock price.

A small number of investors own a significant number of shares of our common stock. As of March 1, 2004, Biogen held approximately 12.1 million shares, or 15.7% of our current common shares outstanding, and Elan and its affiliates held approximately 7.7 million shares, or 10.0% of our current common shares outstanding. Elan also holds convertible preferred stock that, if converted, would result in Elan obtaining approximately 4.9 million additional shares. At any time that Elan's ownership exceeds 10% of our common stock, it has the right to nominate one director, who shall be a member of the senior management of Elan or otherwise acceptable to us, for election to our board of directors. This concentration of stock ownership may allow these shareholders to exercise significant control over our strategic decisions and block, delay or substantially influence all matters requiring shareholder approval, such as:

- election of directors;
- amendment of our charter documents; or
- approval of significant corporate transactions, such as a change of control of Targeted Genetics.

The interests of these shareholders may conflict with the interests of other holders of our common stock with regard to such matters. Furthermore, this concentration of ownership of our common stock could allow these shareholders to delay, deter or prevent a third party from acquiring control of Targeted Genetics at a premium over the then-current market price of our common stock, which could result in a decrease in our stock price.

Further, Elan has registration rights with respect to its holdings pursuant to a registration rights agreement dated July 21, 1999. If we permit the registration of Elan's shares for resale, this would allow Elan to sell large quantities of stock which could adversely impact the price of our common stock. In connection with the filing of a shelf registration statement in August 2003, Elan was entitled to written notice of such filing, which we did not provide on a timely basis. We have since provided such notice and can not determine the impact of not providing the written notice on a timely basis.

Market fluctuations or volatility could cause the market price of our common stock to decline and limit our ability to raise capital.

The stock market in general and the market for biotechnology-related companies in particular have experienced extreme price and volume fluctuations, often unrelated to the operating performance of the affected companies. The market price of the securities of biotechnology companies, particularly companies such as ours without earnings and product revenue, has been highly volatile and is likely to remain so in the future. We believe that in the past, similar levels of volatility have contributed to the decline in the market price of our common stock, and may do so again in the future. Trading volumes of our common stock can increase dramatically, resulting in a volatile market price for our common stock. In addition, the trading price of our common stock could decline significantly as a result of sales of a substantial number of shares of our common stock, or the perception that significant sales could occur. In the past, securities class action litigation has been brought against companies that experience volatility in the market price of their securities. Market fluctuations in the price of our common stock could also adversely affect our collaborative opportunities and our future ability to sell equity securities at a price we deem appropriate. As a result, you could lose all or part of your investment.

Our future capital-raising activities could involve the issuance of equity securities, which would dilute your investment and could result in a decline in the trading price of our common stock.

To meet all or a portion of our long-term funding requirements, we may sell securities in the public or private equity markets if and when conditions are favorable, even if we do not have an immediate need for additional capital at that time. Raising funds through the issuance of equity securities will dilute the ownership of our existing shareholders. Furthermore, we may enter into financing transactions at prices that represent a substantial discount to market price. A negative reaction by investors and securities analysts to any discounted sale of our equity securities could result in a decline in the trading price of our common stock.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Short-term investments: Because of the short-term nature of our investments, we believe that our exposure to market rate fluctuations on those investments is minimal. Currently, we do not use any derivative or other financial instruments or derivative commodity instruments to hedge any market risks and do not plan to employ these instruments in the future. At December 31, 2003, we held $21.1 million in cash and cash equivalents, which are primarily invested in a short-term bond fund that invests in securities that, on the average, mature in less than 12 months. An analysis of the impact on these securities of a hypothetical 10% change in short-term interest rates from those in effect at December 31, 2003, indicates that such a change in interest rates would not have a significant impact on our financial position or on our expected results of operations in 2004.

Notes payable: Our results of operations are affected by changes in short-term interest rates as a result of a loan from Biogen that contains a variable interest rate. Interest payments on this loan are determined by the LIBOR plus a margin of 1%. The carrying amounts of the notes payable and equipment financing arrangements approximate fair value because the interest rates on these instruments change with, or approximate, market rates. The following table provides information as of December 31, 2003, about our obligations that are sensitive to changes in interest rate fluctuations:

	Expected Maturity Date				
	2004	2005	2006	2007	Total
Maturities of long-term obligations:					
Variable rate note	$ —	$ —	$10,000,000	$ —	$10,000,000
Fixed rate notes	65,000	590,000	—	—	655,000
Fixed rate equipment financing	864,000	484,000	140,000	13,000	1,501,000
Other	361,000	—	—	—	361,000
Total	$1,290,000	$1,074,000	$10,140,000	$ 13,000	$12,517,000

Item 8. Financial Statements and Supplementary Data.

REPORT OF ERNST & YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Shareholders
Targeted Genetics Corporation

We have audited the accompanying consolidated balance sheets of Targeted Genetics Corporation as of December 31, 2003 and 2002, and the related consolidated statements of operations, preferred stock and shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2003. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Targeted Genetics Corporation at December 31, 2003 and 2002, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States.

As discussed in Note 1 to the consolidated financial statements, in 2002 the Company changed its method of accounting for goodwill and other intangible assets.

ERNST & YOUNG LLP

Seattle, Washington
February 13, 2004

TARGETED GENETICS CORPORATION

CONSOLIDATED BALANCE SHEETS

	December 31, 2003	December 31, 2002
ASSETS		
Current assets:		
Cash and cash equivalents	$ 21,057,000	$ 12,606,000
Accounts receivable	166,000	1,170,000
Prepaid expenses and other	409,000	452,000
Total current assets	21,632,000	14,228,000
Property and equipment, net	3,423,000	5,520,000
Goodwill, net	31,649,000	31,649,000
Other assets	968,000	1,316,000
Total assets	$ 57,672,000	$ 52,713,000
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	$ 1,271,000	$ 2,012,000
Accrued employee expenses	1,564,000	729,000
Accrued restructure charges	1,404,000	1,202,000
Deferred revenue	1,180,000	6,041,000
Current portion of long-term obligations	1,290,000	1,298,000
Total current liabilities	6,709,000	11,282,000
Accrued restructure charges and deferred rent	5,507,000	2,276,000
Long-term obligations	11,227,000	20,494,000
Commitments (Note 9)		
Minority interest in preferred stock of subsidiary	750,000	750,000
Series B convertible exchangeable preferred stock	—	12,015,000
Shareholders' equity: Preferred stock, $0.01 par value, 6,000,000 shares authorized:		
Series A preferred stock, 800,000 shares designated, none issued and outstanding	—	—
Series B preferred stock, 12,015 shares designated, issued and outstanding	—	—
Common stock, $0.01 par value, 120,000,000 shares authorized, 66,206,230 shares issued and outstanding at December 31, 2003 and 50,566,348 shares issued and outstanding at December 31, 2002	662,000	506,000
Additional paid-in capital	249,399,000	207,139,000
Accumulated deficit	(216,582,000)	(201,749,000)
Total shareholders' equity	33,479,000	5,896,000
Total liabilities and shareholders' equity	$ 57,672,000	$ 52,713,000

See accompanying notes to consolidated financial statements

TARGETED GENETICS CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2003	2002	2001
Revenue:			
Collaborative agreements	$ 14,073,000	$ 17,362,000	$ 16,117,000
Collaborative agreement with unconsolidated, majority-owned research and development joint venture	—	1,971,000	2,763,000
Total revenue	14,073,000	19,333,000	18,880,000
Operating expenses:			
Research and development	17,197,000	29,389,000	29,218,000
General and administrative	5,490,000	8,067,000	8,531,000
Restructure charges	5,190,000	2,327,000	—
Equity in net loss of unconsolidated, majority-owned research and development joint venture	—	1,926,000	3,666,000
Amortization of acquisition-related intangibles	—	365,000	6,069,000
Total operating expenses	27,877,000	42,074,000	47,484,000
Loss from operations	(13,804,000)	(22,741,000)	(28,604,000)
Investment income	183,000	398,000	1,886,000
Interest expense	(1,212,000)	(1,424,000)	(452,000)
Net loss	$ (14,833,000)	$ (23,767,000)	$ (27,170,000)
Net loss per common share (basic and diluted)	$ (0.26)	$ (0.52)	$ (0.62)
Shares used in computation of basic and diluted net loss per common share	57,486,000	45,767,000	43,928,000

See accompanying notes to consolidated financial statements

TARGETED GENETICS CORPORATION

CONSOLIDATED STATEMENTS OF PREFERRED STOCK AND SHAREHOLDERS' EQUITY

	Series B Preferred Stock		Common Stock		Additional Paid	Accumulated	Total Shareholders'
	Shares	Amount	Shares	Amount	In Capital	Deficit	Equity
Balance at January 1, 2001	12,015	$12,015,000	42,608,943	$ 426,000	$ 201,803,000	$(150,812,000)	$ 51,417,000
Net loss and comprehensive loss—2001	—	—	—	—	—	(27,170,000)	(27,170,000)
Cancellation of shares held in escrow related to Genovo acquisition	—	—	(155,649)	(2,000)	(1,998,000)	—	(2,000,000)
Exercise of stock options	—	—	672,383	7,000	1,052,000	—	1,059,000
Exercise of warrants	—	—	1,000,000	10,000	1,990,000	—	2,000,000
Stock based compensation	—	—	—	—	80,000	—	80,000
Balance at December 31, 2001	12,015	12,015,000	44,125,677	441,000	202,927,000	(177,982,000)	25,386,000
Net loss and comprehensive loss—2002	—	—	—	—	—	(23,767,000)	(23,767,000)
Cancellation of shares held in escrow related to Genovo acquisition	—	—	(1,549)	—	(20,000)	—	(20,000)
Exercise of stock options	—	—	35,053	1,000	37,000	—	38,000
Issuance of common stock to Biogen for cash	—	—	5,804,673	58,000	3,919,000	—	3,977,000
Issuance of common stock related to Genovo acquisition	—	—	602,494	6,000	276,000	—	282,000
Balance at December 31, 2002	12,015	12,015,000	50,566,348	506,000	207,139,000	(201,749,000)	5,896,000
Net loss and comprehensive loss—2003	—	—	—	—	—	(14,833,000)	(14,833,000)
Reclassification of Series B convertible preferred stock	—	(12,015,000)	—	—	12,015,000	—	12,015,000
Issuance of shares in public offering	—	—	7,777,778	78,000	16,037,000	—	16,115,000
Issuance of common stock to Biogen for cash	—	—	2,515,843	25,000	4,768,000	—	4,793,000
Issuance of common stock to Elan for debt conversion	—	—	5,203,244	52,000	9,315,000	—	9,367,000
Exercise of stock options	—	—	143,017	1,000	125,000	—	126,000
Balance at December 31, 2003	12,015	$ —	66,206,230	$ 662,000	$ 249,399,000	$(216,582,000)	$ 33,479,000

See accompanying notes to consolidated financial statements

TARGETED GENETICS CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2003	2002	2001
Operating activities:			
Net loss	$ (14,833,000)	$ (23,767,000)	$ (27,170,000)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	2,420,000	3,252,000	2,623,000
Non cash interest expense	822,000	825,000	120,000
Equity in net loss of unconsolidated, majority-owned research and development joint venture	—	1,926,000	3,666,000
Amortization of acquisition-related intangibles	—	365,000	6,069,000
Loss on disposal of assets	—	99,000	—
Stock-based compensation expense	—	—	80,000
Changes in assets and liabilities:			
Decrease (increase) in accounts receivable	1,004,000	(816,000)	(1,388,000)
Decrease (increase) in prepaid expenses and other	43,000	482,000	(643,000)
Decrease in other assets	348,000	174,000	178,000
Increase (decrease) in current liabilities	394,000	(1,609,000)	121,000
Decrease in deferred revenue	(4,861,000)	(3,555,000)	(6,719,000)
Increase in accrued restructure expenses and deferred rent	3,433,000	1,635,000	236,000
Decrease (increase) in accounts receivable from unconsolidated, majority-owned research and development joint venture	—	893,000	(716,000)
Net cash used in operating activities	(11,230,000)	(20,096,000)	(23,543,000)
Investing activities:			
Purchases of property and equipment	(316,000)	(563,000)	(4,411,000)
Investment in unconsolidated, majority-owned research and development joint venture	—	(1,926,000)	(2,805,000)
Net cash used in investing activities	(316,000)	(2,489,000)	(7,216,000)
Financing activities:			
Net proceeds from sales of capital stock	21,028,000	4,014,000	3,059,000
Proceeds from leasehold improvements and equipment financing arrangements	229,000	607,000	2,401,000
Payments under leasehold improvements and equipment financing arrangements	(1,260,000)	(1,316,000)	(1,145,000)
Loan proceeds from collaborative partners	—	5,950,000	13,000,000
Minority interest contribution	—	750,000	—
Net cash provided by financing activities	19,997,000	10,005,000	17,315,000
Net increase (decrease) in cash and cash equivalents	8,451,000	(12,580,000)	(13,444,000)
Cash and cash equivalents, beginning of year	12,606,000	25,186,000	38,630,000
Cash and cash equivalents, end of year	$ 21,057,000	$ 12,606,000	$ 25,186,000
Supplemental information:			
Cash paid for interest	$ 459,000	$ 439,000	$ 269,000
Acquisition-related common stock issued (recovered)	—	282,000	(2,000,000)

See accompanying notes to consolidated financial statements

1. Description of Business and Summary of Significant Accounting Policies

Description of Business

Targeted Genetics was incorporated in the state of Washington in March 1989. We operate our business in one reportable segment: research and product development. On both our own behalf and in connection with various collaborative agreements with others, we conduct research and development of gene therapy products and technologies for treating both acquired and inherited diseases.

Basis of Presentation

Our consolidated financial statements include the accounts of Targeted Genetics, our wholly-owned subsidiaries Genovo, Inc., or Genovo, and TGCF Manufacturing Corporation (*inactive*), and our majority-owned subsidiary, CellExSys, Inc. The consolidated financial statements do not include Emerald Gene Systems, Ltd., or Emerald, our unconsolidated, majority-owned research and development joint venture with Elan International Services Ltd., a wholly-owned subsidiary of Elan Corporation plc, or Elan, because we do not have operating control of the joint venture. The operations of Emerald terminated during 2002 and there are no ongoing operating activities. All significant inter-company transactions have been eliminated in consolidation.

Cash Equivalents

Cash equivalents include short-term investments that have a maturity at the time of purchase of three months or less, are readily convertible into cash and have insignificant interest rate risk. Our cash equivalents are recorded at cost, which approximates fair market value, and consist principally of shares in a limited-maturity mutual fund and money market accounts.

Fair Value of Financial Instruments

We believe that the carrying amounts of financial instruments such as cash and cash equivalents, accounts receivable and accounts payable approximate fair value, because of the short-term nature of these items. We believe that the carrying amounts of the notes payable and equipment financing obligations approximate fair value because the interest rates on these instruments change with, or approximate, market interest rates.

Property and Equipment

Property and equipment is stated at cost less accumulated depreciation. We compute depreciation of property and equipment using the straight-line method over the asset's estimated useful life, which ranges from three to seven years. Leasehold improvements are amortized over the asset's estimated useful life or the lease term, whichever is shorter. Depreciation expense was $1.1 million in 2003, $1.3 million in 2002 and $1.2 million in 2001.

Goodwill

Goodwill consists of acquired technology that is core to our development programs. On January 1, 2002, we adopted Statement of Financial Accounting Standards, or SFAS, No. 142, "*Goodwill and Other Intangible Assets.*" SFAS No. 142 discontinues the amortization of goodwill and certain indefinite lived intangibles. This accounting standard required us to complete a transitional impairment test upon adoption to determine if an impairment in the value of goodwill existed. We performed a transitional impairment test as of January 1, 2002 and no impairment in the value of our goodwill existed as of that date. In accordance with SFAS No. 142, we test goodwill for impairment in value at least annually and more frequently if impairment indicators arise, and if goodwill is impaired, we will

write down the value of goodwill through a charge to expense. We performed annual impairment tests as of October 1, 2003 and October 1, 2002 and concluded that no impairment in the value of our goodwill had occurred.

The following table presents our results of operations for the years ended December 31, 2003, 2002 and 2001 and reconciles the results of operations we reported for the year ended December 31, 2001 to the amounts adjusted for the elimination of goodwill amortization that we would have recorded had we adopted SFAS No. 142 as of the beginning of 2001:

	Year ended December 31,		
	2003	2002	2001
Net loss	$ (14,833,000)	$ (23,767,000)	$ (27,170,000)
Elimination of goodwill amortization	—	—	5,564,000
Net loss, as adjusted	$ (14,833,000)	$ (23,767,000)	$ (21,606,000)
Net loss per common share:			
Net loss per common share, as reported	$ (0.26)	$ (0.52)	$ (0.62)
Elimination of goodwill amortization	—	—	0.13
Net loss per common share, as adjusted	$ (0.26)	$ (0.52)	$ (0.49)

Other Assets

We have reported a $400,000 certificate of deposit in other assets as it is collateral for the operating lease of our Bothell, Washington facility.

Long-Lived Assets

On January 1, 2002, we adopted SFAS No. 144, "*Accounting for the Impairment or Disposal of Long-Lived Assets.*" In accordance with SFAS No. 144, we review the carrying value and fair value of long-lived assets whenever events or changes in circumstances indicate that there may be impairment in value. Conditions that would necessitate an impairment assessment include a significant decline in the observable market value of an asset, a significant change in the extent or manner in which an asset is used, or a significant adverse change that would indicate that the carrying amount of an asset or group of assets is not recoverable.

Accrued Restructure Charges

We have adopted the provisions of SFAS No. 146, *"Accounting for Costs Associated with Exit or Disposal Activities,"* as it relates to our facilities in Bothell, Washington and Sharon Hill, Pennsylvania and we have recorded restructuring charges on the related operating leases. SFAS 146 was effective for exit or disposal activities initiated after December 31, 2002; however, as allowed for, we early adopted this pronouncement in the fourth quarter of 2002. Accrued restructuring charges, and in particular, those charges associated with exiting a facility, are subject to many assumptions and estimates. Under SFAS 146, an accrued liability for lease termination costs is initially measured at fair value, based on the remaining lease payments due under the lease and other costs, reduced by sublease rental income that could be reasonably obtained from the property, and discounted using a credit-adjusted risk-free interest rate. We use a risk free annual interest rate of 10%. The assumptions as to estimated sublease rental income, the period of time, costs, and concessions necessary to enter into a sublease significantly impact the accrual and may differ from what actually occurs. We review these estimates quarterly and adjust the accrual if necessary.

Series B Convertible Preferred Stock

In July 1999, we issued shares of our Series B convertible exchangeable preferred stock, valued at $12 million, to Elan in exchange for our 80.1% interest in Emerald. The Series B preferred stock and accrued dividends are convertible at Elan's option into shares of our common stock, at a conversion price of $3.32 per share. Compounding dividends accrue semi-annually at 7% per year on the $1,000 per share face value of the preferred stock until July 2005. Dividends are not paid in cash, but rather result in an increase in the number of shares of common stock to be issued upon conversion. The Series B preferred stock and accrued dividends were convertible into 4,765,500 shares of our common stock at December 31, 2003, and unless converted earlier, will become convertible into approximately 5.5 million shares of our common stock in July 2005 when the accrual of dividends ends. Elan was entitled to exchange the Series B preferred stock for all shares of preferred stock that we hold in Emerald until this exchange right expired in April 2003. As a result of the expiration of the exchange right, we have reclassified the Series B preferred stock from mezzanine equity to shareholders' equity.

Stock Compensation

As permitted by the provisions of SFAS No. 123, "*Accounting for Stock-Based Compensation*," we have elected to follow Accounting Principles Board Opinion No. 25, *"Accounting for Stock Issued to Employees,"* and related interpretations in accounting for employee stock option grants. In addition, we follow the disclosure requirements of SFAS No. 148, *"Accounting for Stock-Based Compensation – Transition and Disclosure – an amendment of SFAS No. 123,"* which require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. We provide this disclosure in Note 6 to the Consolidated Financial Statements. We do not recognize any compensation expense for options granted to employees because we grant all options at fair market value on the date of grant. Options granted to consultants are recorded as an expense over their vesting term based on their fair value, which is determined using the Black-Scholes method.

As allowed by SFAS No.1 23, we do not recognize compensation expense on stock options granted to employees and directors. If we had elected to recognize compensation expense based on the fair market value at the grant dates for stock options granted, the pro forma net loss and net loss per common share would have been as follows:

	Year ended December 31,		
	2003	2002	2001
Net loss:			
as reported	$ (14,833,000)	$ (23,767,000)	$ (27,170,000)
stock-based compensation under SFAS 123	(780,000)	(2,532,000)	(3,599,000)
pro forma	$ (15,613,000)	$ (26,299,000)	$ (30,769,000)
Basic net loss per share:			
as reported	$ (0.26)	$ (0.52)	$ (0.62)
pro forma	(0.27)	(0.57)	(0.70)

Revenue Recognition under Collaborative Agreements

We generate revenue from technology licenses, collaborative research arrangements and cost reimbursement contracts. Revenue under technology licenses and collaborative agreements typically consists of nonrefundable, up-front license fees, collaborative research funding, technology access fees and various other payments.

Revenue from nonrefundable, up-front license fees and technology access payments is initially deferred and then recognized systematically over the service period of the collaborative agreement, which is often the

development period. Revenue associated with performance milestones is recognized as earned, based upon the achievement of the milestones defined in the applicable agreements. Revenue under research and development cost-reimbursement contracts is recognized as the related costs are incurred. Payments received in excess of amounts earned are classified as deferred revenue in the accompanying Consolidated Balance Sheets.

Relationships with Strategic Partners

In connection with our collaborations with Biogen, Inc., Celltech Group plc and Genzyme Corporation and our joint venture with Elan, each strategic partner purchased shares of our common stock. The number of shares of our common stock that we issued to each of our strategic partners represented less than 20% of our total shares then outstanding. Our collaborations with Biogen, Celltech and Genzyme have concluded and our Emerald Gene Systems joint venture with Elan is inactive. Generally, we cannot control or monitor shares of our stock that these partners and former partners may buy or sell in open market transactions. Although each of our former collaborative partners influenced the activities specific to their collaborations with us, our partners did not influence our management or operating policies generally or otherwise significantly influence our operating activities.

Significant Revenue Relationships and Concentration of Risk

Biogen, Celltech, IAVI and Wyeth accounted for substantially all of the revenue we recorded from collaborative agreements in 2003, 2002 and 2001. All of our revenue from the collaborative agreement with unconsolidated, majority-owned research and development joint venture is from Emerald, our 80.1%-owned joint venture with Elan. Our collaborations with Biogen, Celltech, Wyeth and our joint venture with Elan have concluded and these sources of revenue have ended leaving IAVI as our primary source of revenue for 2004. A change in the level of work or funding received from IAVI could disrupt our business and adversely affect our cash flow and results of operations.

Research and Development Costs

Research and development costs include salaries, costs of outside collaborators and outside services, clinical trial expenses, royalty and license costs and allocated facility, occupancy and utility expenses. We expense research and development costs as incurred. Costs and expenses related to programs conducted under collaborative agreements that result in collaborative revenue totaled approximately $9.7 million in 2003, $14.7 million in 2002 and $13.5 million in 2001.

Net Loss per Common Share

Net loss per common share is based on net loss divided by the weighted average number of common shares outstanding during the period. Our diluted net loss per share is the same as our basic net loss per share because all stock options, warrants and other potentially dilutive securities are antidilutive and therefore excluded from the calculation of diluted net loss per share. The total number of shares that we excluded from the calculations of net loss per share were 10,867,013 shares in 2003, 17,284,151 shares in 2002 and 13,871,348 shares in 2001.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Our actual results may differ from those estimates.

Recently Issued Accounting Standards

In July 2000, the Financial Accounting Standards Board, or FASB, issued Emerging Issues Task Force, or EITF, Issue No. 00-21, *"Revenue Arrangements with Multiple Deliverables."* This issue addresses accounting for revenue under agreements with multiple revenue-generating activities and became effective for revenue arrangements entered into after September 1, 2003. We will adopt the provisions of EITF No. 00-21 for any new revenue arrangements and do not expect the provisions of EITF No. 00-21 to have a significant effect on our financial position or operating results.

In January 2003, the FASB issued FIN No. 46, *"Consolidation of Variable Interest Entities."* This interpretation of Accounting Research Bulleting No. 51, *"Consolidated Financial Statements"* addresses consolidation of business enterprises of variable interest entities in which: (1) the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, which is provided through other interests that will absorb some or all of the expected losses of the entity and (2) the equity investors lack one or more of certain essential characteristics of a controlling interest. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. In December 2003, the FASB revised FIN No. 46 to modify the effective date for applying this interpretation, which made it effective for us on January 1, 2004. We will adopt the provisions of FIN No. 46 in the first quarter of 2004 and do not expect the provisions of FIN No. 46 to have a significant effect on our financial position or operating results. We are currently evaluating additional disclosures, if any, that may be required for Emerald.

In December 2003, the Securities and Exchange Commission, or SEC, released Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition*. The SEC staff updated and revised the existing revenue recognition guidance to make its interpretive guidance consistent with current accounting guidance. The provisions of SAB No. 104 did not have a significant effect on our financial position or operating results.

Reclassifications

Certain reclassifications have been made to conform prior year results to the current year presentation.

2. Property and Equipment

Property and equipment consisted of the following:

	December 31,	
	2003	2002
Furniture and equipment	$ 7,270,000	$ 7,055,000
Leasehold improvements	9,635,000	9,527,000
	16,905,000	16,582,000
Less accumulated depreciation and amortization	(13,482,000)	(11,062,000)
	$ 3,423,000	$ 5,520,000

We finance a portion of our equipment through equipment financing arrangements and pledge the equipment as security for the financing. The cost of equipment that has been pledged under financing arrangements totaled $5.4 million at December 31, 2003 and $5.1 million at December 31, 2002.

3. Goodwill and Other Intangibles

Goodwill and other purchased intangibles consisted of the following:

	December 31,	
	2003	2002
Goodwill	$ 38,154,000	$ 38,154,000
Other purchased intangibles	605,000	605,000
	38,759,000	38,759,000
Less accumulated amortization	(7,110,000)	(7,110,000)
	$ 31,649,000	$ 31,649,000

4. Accrued Restructure Charges

We implemented cost reduction measures in December 2002; in response to general business conditions, the lack of funding at that time and collaborations that ended, to lower our fixed operating costs and to focus our resources on our key product development programs. As a result, we recorded restructure charges of $2.3 million in 2002 to account for ongoing lease payments related to our abandoned lease facility located in Bothell, Washington, and termination benefits paid to former employees. In addition, we reclassified the deferred rent liability of $1.5 million, related to the Bothell facility, to accrued restructure costs. Therefore, the balance of our accrued restructure liability at December 31, 2002, was $3.4 million. This represented our best estimate at the time of the fair value of the liability as determined under SFAS No. 146, *"Accounting for Costs Associated with Exit or Disposal Activities."*

During 2003 we closed our Sharon Hill, Pennsylvania facility and we began marketing the facility for a sublease tenant. As a result, we recognized a restructure charge for the difference between the remaining lease payments due on the lease and the estimated sub-lease market rates. As 2003 progressed, the market conditions for subleasing both the Sharon Hill and Bothell facilities declined substantially. Due to the relatively short remaining lease term for the Sharon Hill facility, which expires in November 2005, we substantially decreased the rates at which we are offering the Sharon Hill facility in an effort to secure a tenant for the remaining term of the lease and recorded an additional restructure charge to reflect our updated assumptions. In 2003 we also concluded that additional concessions will be required from us, including additional rent abatement periods and tenant improvement allowances, in order to sub-lease the Bothell facility. As a result of our decision to abandon the Sharon Hill facility and changes in market conditions for both facilities during 2003, we recorded restructuring charges totaling $5.2 million in 2003.

If we proceed with further development or commercialization of any of our product candidates, we may need to resume use of the Bothell facility to fulfill our manufacturing requirements. If we decide to resume use of this facility, any remaining restructuring accrual related to the facility will be reversed. This will be reflected as a one-time credit to restructuring charges, reflected in the period in which use is resumed. Any decision to resume use of the facility will be based on a number of factors including the progress of our product candidates in clinical development, the estimated duration of design and construction, the estimated timing of manufacturing requirements, the ability of our current manufacturing capabilities to meet demand, and the availability of resources. However, unless we resume use of Bothell facility, we will continue to account for the lease in accordance with SFAS No. 146 and will periodically evaluate the assumptions and record additional restructure charges if necessary.

The tables below present our total estimated restructuring charges and a reconciliation of the associated liability:

Restructure charges	Incurred in 2002	Incurred in 2003	Estimated future charges	Total expected to be incurred
Employee termination benefits	$ 725,000	$ 5,000	$ —	$ 730,000
Contract termination costs	1,601,000	5,153,000	—	6,754,000
Other associated costs	—	32,000	—	32,000
Total	$ 2,326,000	$ 5,190,000	$ —	$ 7,516,000

Reconciliation	Beginning liability	Incurred in 2003	Paid in 2003	Adjustments	Ending liability
Employee termination benefits	$ 284,000	$ 5,000	$ (289,000)	$ —	$ —
Contract termination costs	3,140,000	5,153,000	(1,423,000)	—	6,870,000
Other associated costs	—	32,000	(32,000)	—	—
Total	$3,424,000	$ 5,190,000	$ (1,744,000)	$ —	$ 6,870,000

We record payments of rent related to these facilities as a reduction in the amount of the accrued restructure liability. We recognize accretion expense due to the passage of time, which is also reflected as a restructure charge.

5. Long-Term Obligations

Long-term obligations consisted of the following:

	December 31, 2003	December 31, 2002
Loan payable to Biogen, due August 2006	$ 10,000,000	$ 10,000,000
Equipment financing obligations	1,501,000	2,383,000
Other long-term obligations	1,016,000	760,000
Convertible loans payable to Elan	—	7,950,000
Accrued interest payable to Elan	—	699,000
	12,517,000	21,792,000
Less current portion	(1,290,000)	(1,298,000)
	$ 11,227,000	$ 20,494,000

Future aggregate principal payments related to long-term obligations are $1,290,000 in 2004, $1,074,000 in 2005, $10,140,000 in 2006 and $13,000 in 2007.

During 2003, we converted $9.4 million in outstanding loans and interest payable to Elan into 5,203,244 shares of restricted and unregistered Targeted Genetics common stock. As conversion of this debt was completed under the original terms of our convertible promissory note with Elan, there was no impact on our results of operations. The promissory note and interest payable to Elan had a scheduled maturity in July 2005.

During 2001, we borrowed $10.0 million from Biogen against an unsecured loan agreement. Outstanding borrowings under this loan bear interest at the one-year LIBOR rate plus 1%, which is reset quarterly. At December 31, 2003, the interest rate was 2.5%. The loan agreement contains financial covenants establishing limits on our ability to declare or pay cash dividends. The loan is due in August 2006 and we may repay it at anytime without penalty.

Equipment financing obligations relate to secured financing for the purchase of capital equipment and leasehold improvements. These obligations bear interest at rates ranging from 7.75% to 14.97% and mature from January 2004 to June 2007.

Other long-term obligations include a promissory note payable to Biogen, which we assumed in September 2000 as part of our acquisition of Genovo. This promissory note has an outstanding principal amount of $650,000 and bears no interest. At the time of the acquisition, we discounted the note to reflect market interest rates, using an imputed interest rate of 5.6%. The note is due in September 2005.

6. Shareholders' Equity

Series B Convertible Preferred Stock

In July 1999, we issued shares of our Series B convertible exchangeable preferred stock, valued at $12.0 million, to Elan in exchange for our 80.1% interest in Emerald. The Series B preferred stock is convertible, at Elan's option, into shares of our common stock. Compounding dividends accrue semi-annually at 7% per year on the $1,000 per share face value of the preferred stock until July 2005. The Series B preferred stock was exchangeable for all shares of preferred stock that we hold in Emerald, until the exchange right expired in July 2003. Series B dividends are not paid in cash, but rather result in an increase in the number of shares of our common stock to be issued upon conversion. The Series B preferred stock and accrued dividends were convertible into 4,765,500 shares of our common stock at December 31, 2003 and 4,448,645 shares at December 31, 2002, and unless converted earlier, will become convertible into approximately 5.5 million shares of our common stock in July 2005 when the accrual of dividends ends. The Series B preferred stock will automatically convert into shares or our common stock in the event of specified transactions involving a change of control of Targeted Genetics.

Elan, as a holder of Series B preferred stock, is not entitled to vote together with holders of common stock, including with respect to election of directors, or as a separate class, except as otherwise provided by the Washington Business Corporation Act.

Issuances of Common Stock

In June 2003, we issued 7,777,778 shares of our common stock in a public offering to institutional investors at a price of $2.25 per share and received net proceeds of approximately $16.1 million to fund our ongoing research and development activities and general corporate purposes.

In August 2003, we issued 2,515,843 shares of our common stock to Biogen at a price of approximately $1.91 per share and received net proceeds of approximately $4.8 million to fund our ongoing research and development activities and general corporate purposes.

Stock Purchase Warrants

In 1999, in connection with a technology license agreement, we issued to Alkermes, Inc. a warrant to purchase 1,000,000 shares of our common stock at an exercise price of $2.50, expiring in June 2007, and a warrant to purchase 1,000,000 shares at an exercise price of $4.16 per share, expiring in June 2009. Both of these warrants were outstanding at December 31, 2003.

We have outstanding warrants to purchase a total of 3,826 shares of our common stock related to a technology license agreement. These warrants have an exercise price of $4.50 per share and expire March 2004.

Shareholder Rights Plan

In 1996, our board of directors adopted a shareholder rights plan. Under our rights plan, each holder of a share of outstanding common stock is also entitled to one preferred stock purchase right. We adopted the rights plan to guard against partial tender offers and other abusive tactics that might be used in an attempt to gain control of Targeted Genetics without paying all shareholders a fair price for their shares. The rights plan will not prevent a change of control, but is designed to deter coercive takeover tactics and to encourage anyone attempting to acquire us to first negotiate with our board. Generally, if any person or group becomes the beneficial owner of more than 15% of our outstanding common stock (an acquiring person), then each preferred stock purchase right not owned by the acquiring person or its affiliates would entitle its holder to purchase a share of our common stock at a 50% discount, which would result in a significant dilution of the acquiring person's interest in Targeted Genetics. If we or 50% or more of our assets or earnings are thereafter acquired, each right will entitle its holder to purchase a share of common stock of the acquiring entity for a 50% discount.

The shareholder rights plan expires in October 2006. Our board of directors will generally be entitled to redeem the rights for $0.01 per right at any time before a person or group acquires more than 15% of our common stock. In addition, at any time after an acquiring person crosses the 15% threshold but before it acquires us or 50% of our assets or earnings, the board may exchange all or part of the rights (other than those held by the acquiring person) for one share of common stock per right.

Stock Options

We have granted non-qualified and incentive stock options to purchase up to 6,979,444 shares of our common stock under our 1992 Stock Option Plan, or the 1992 Plan, our Director Stock Option Plan, our Genovo Stock Option Plan and our 1999 Stock Option Plan, or the 1999 Plan. The 1992 Plan terminated on January 21, 2002. Although there are options outstanding under the 1992 Plan, no additional options may be granted from that plan. Beginning in 1999, we began granting all options under the 1999 Plan and discontinued granting options under our other plans.

The 1999 Plan, as amended, provides for option grants to our employees, directors and officers and to consultants, agents, advisors and independent contractors who provide services to us, or our subsidiaries. The 1999 Plan authorizes the grant of options to purchase up to 3.5 million shares under the 1999 plan. The exercise price for incentive stock options shall not be less than the fair market value of the shares on the date of grant. Options granted under the 1999 Plan expire no later than ten years from the date of grant and generally vest and become exercisable over a three or four-year period following the date of grant. In 2003 we granted options to purchase 720,000 shares of our common stock with vesting periods, which range from twelve to eighteen months. As of December 31, 2003, options to purchase 322,927 shares of our common stock were available for future grant under the 1999 Plan.

In March 2004, our board of directors approved an increase in the number of shares available for issuance under our 1999 Stock Option Plan. Subject to shareholder approval at our annual meeting, the number of shares available for grant under this plan will be increased by 6,000,000 shares to 9,500,000 shares.

The following table summarizes activity related to our stock option plans:

	Shares	Weighted Average Exercise Price	Options Exercisable
Balance, January 1, 2001	3,320,778	$ 3.66	1,782,082
Granted	1,510,075	5.27	
Exercised	(672,383)	1.57	
Forfeited	(274,637)	5.05	
Balance, December 31, 2001	3,883,833	4.55	1,861,093
Granted	1,347,500	1.72	
Exercised	(35,053)	1.06	
Forfeited	(756,873)	4.12	
Balance, December 31, 2002	4,439,407	3.80	2,389,393
Granted	1,060,250	0.54	
Exercised	(143,017)	0.88	
Expired	(4,400)	0.55	
Forfeited	(1,254,553)	3.78	
Balance, December 31, 2003	4,097,687	3.07	2,706,127

The following table summarizes information regarding our outstanding and exercisable options at December 31, 2003:

	Outstanding			Exercisable	
Range of Exercise Prices	Number of Option Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Number of Option Shares	Weighted Average Exercise Price
$0.29 – $0.43	757,452	$ 0.36	9.18	373,535	$ 0.36
0.68 – 1.56	796,335	1.03	7.56	380,126	1.23
1.59 – 2.25	783,980	2.03	5.62	657,087	2.03
2.50 – 4.86	707,361	3.21	6.31	442,648	3.49
5.00 – 6.66	734,505	6.14	5.90	559,839	6.07
8.56 – 21.38	318,054	9.73	6.29	292,892	9.66
	4,097,687	3.07	6.88	2,706,127	3.59

We estimated the fair value of each option on the date of grant using the Black-Scholes pricing model with the following weighted average assumptions:

	2003	2002	2001
Expected dividend rate	Nil	Nil	Nil
Expected stock price volatility	1.481	1.480	1.590
Risk-free interest rate	2.91%	4.03%	4.79%
Expected life of options	4 years	4 years	4 years
Weighted average fair value (per share) of options granted	$ 0.49	$ 1.58	$ 4.94

Reserved Shares

As of December 31, 2003, we had reserved shares of our common stock for future issuance as follows:

Stock options granted	4,097,687
Available for future grants	322,927
Stock purchase warrants	2,003,826
Conversion of Series B preferred stock	4,765,500
Total reserved shares	11,189,940

7. Collaborative and Other Agreements

We have entered into various relationships with pharmaceutical and biotechnology companies and a non-profit organization to develop our product candidates. Under these partnerships, we typically receive reimbursement for research and development activities performed by us under the collaboration as well as milestone and upfront payments. The aggregate revenue we earned under all of our collaborative research and development collaborations was $14.1 million in 2003, $19.3 million in 2002 and $18.9 million in 2001.

International AIDS Vaccine Initiative Agreement

In February 2000, we entered into a development collaboration with IAVI and CRI to develop a vaccine to protect against the progression of HIV infection to AIDS. Effective December 2003, this collaboration was extended through December 2006. Under the terms of the collaboration, IAVI provides us funding to support development, preclinical studies and manufacturing of product for clinical trials. In addition IAVI provides CRI funding for development and preclinical studies and is also funding the costs of Phase I vaccine candidate clinical trials. The collaborative agreement provides for IAVI to reimburse us for research and development and manufacturing costs on a cost reimbursable basis.

Under the terms of the IAVI agreement, we have rights to manufacture any vaccines developed under the collaboration and will retain worldwide exclusive commercialization rights, in developed countries, to any product that results from the collaboration. If we decline or are unable to produce the vaccine for developing countries in reasonable quantity and at a reasonable price, IAVI has the right to contract with other manufacturers to make the vaccine for use in those countries. We have recognized $4.4 million in revenue from IAVI in 2003, $5.7 million in revenue in 2002 and $1.9 million of revenue in 2001.

Cystic Fibrosis Foundation Agreement

In July 2003, we established a collaboration with the CF Foundation related to our current Phase II clinical trial for our product candidate for treating cystic fibrosis called tgAAVCF. Under this collaboration, the CF Foundation is providing funding of up to $1.7 million directly to the sites conducting the study to cover their direct trial costs. If tgAAVCF is commercialized, the CF Foundation is entitled to a return on its investment in this clinical trial to be paid out over five years from the date of product commercialization.

Biogen Agreement

In September 2000, we established a three-year multiple-product development and commercialization collaboration with Biogen. Upon initiation of the collaboration in 2000, Biogen paid us $8.0 million, which included an up-front technology license of $5.0 million and up-front prepaid research and development funding of $3.0 million. Under this agreement, Biogen agreed to provide a minimum of $3.0 million of additional research and development funding, paid at a rate of a minimum of $1.0 million per year. We amortized the $8.0 million up-front

fee paid by Biogen over the initial research and development collaboration period which ended on September 30, 2003. We recognized revenue on the $1.0 million minimum annual project funding as we performed specified research and development. We recognized revenue of $5.1 million in 2003, $2.9 million in 2002 and $2.6 million in 2001 related to the Biogen collaboration. At the conclusion of the collaboration, we recognized $2.6 million in revenue to recognize previously deferred payments received from Biogen.

As part of this collaboration, Biogen also agreed to provide us with loans of up to $10.0 million and committed to purchase, at our discretion, up to $10.0 million of our common stock. In 2001, we borrowed $10.0 million under the loan commitment. In September 2002, we issued 5,804,673 shares of our common stock to Biogen at a price of approximately $0.69 per share and received proceeds of $4.0 million and in August 2003, we issued 2,515,843 shares of our common stock to Biogen at a price of $1.91 per share and received proceeds of $4.8 million. As of December 31, 2003, Biogen owned 12,127,178 shares of our common stock or approximately 18% of our total shares outstanding.

Wyeth Agreement

In November 2000, we entered into a collaboration to develop gene therapy products for treating hemophilia with Wyeth. Under the terms of a research and development funding agreement, Wyeth paid us up-front payments of $5.6 million and was to pay us up to $15.0 million to develop a product candidate for hemophilia A over a three-year research and development collaboration period scheduled to end in November 2003. In November 2002, Wyeth elected to terminate this hemophilia collaboration and related agreements. Under the terms of our agreements with Wyeth, all rights that we granted or otherwise extended to Wyeth related to the hemophilia technology have returned to us. In February 2003, we entered into a termination agreement with Wyeth that provided for a $3.2 million cash payment from Wyeth, in payment of an account receivable of $637,000 recorded in 2002 for services performed prior to Wyeth's termination and as a termination settlement of approximately $2.6 million to be recognized as revenue. In addition, we recognized $1.3 million in previously received cash payments as revenue upon termination of the Wyeth agreement. As part of this settlement agreement we extended the time frame until July 31, 2004 in which we may exercise an option to access certain technology and rights of Wyeth, which may be useful in the development of a hemophilia gene therapy.

We recognized revenue of $3.9 million in 2003, $7.5 million in 2002 and $6.5 million in 2001 under this collaboration. These amounts include amortization in each period of the $5.6 million of up-front payments and collaborative research funding earned during the period.

Alkermes License

In June 1999, we entered into an agreement with Alkermes, Inc. to acquire the exclusive rights to a patent and other pending patent applications for manufacturing AAV vectors. The license to this technology, first developed by Children's Hospital in Columbus, Ohio, covers the use of cell lines for the manufacture of AAV vectors. The Alkermes license agreement requires us to satisfy specified development requirements in order to maintain the exclusivity of the license. We are obligated to make clinical and regulatory development milestone payments for any product candidates using this technology, to pay royalties upon the sale of any products using the licensed technology and to make payments to Alkermes if we sublicense the technology covered by the license agreement.

8. Emerald Gene Systems Joint Venture

In July 1999, we formed Emerald, our joint venture with Elan, to develop product candidates based on our expertise in gene delivery and Elan's expertise in drug delivery. The initial three-year development period for Emerald ended during 2002 and there are no ongoing operating activities.

We own 80.1% of Emerald's common stock and 80.1% of Emerald's preferred stock and Elan owns the remaining 19.9% of Emerald's common and preferred stock. The common stock of Emerald held by Elan is similar in all respects to the common stock held by us, except that those shares held by Elan do not have voting rights. The common shares held by Elan may be converted into voting common shares at Elan's election. Although we currently own 100% of the voting stock, Elan and its subsidiaries retained significant minority investor rights that are considered participating rights under the FASB's Emerging Issues Task Force Bulletin 96-16, *Investors' Accounting for an Investee When the Investor Has a Majority of the Voting Interest but the Minority Shareholder Has Certain Approval or Veto Rights*. Because Elan's participating rights prevented us from exercising control over Emerald, we have not consolidated the financial statements of Emerald, but instead have accounted for our investment in Emerald under the equity method of accounting. We recorded our share of Emerald's net loss from operations as equity in net loss of unconsolidated, majority owned research and development joint venture in the accompanying statements of operations.

In January 2003, the FASB issued FIN No. 46, *"Consolidation of Variable Interest Entities."* This interpretation of Accounting Research Bulleting No. 51, *"Consolidated Financial Statements"* addresses consolidation of business enterprises of variable interest entities in which: (1) the equity investment at risk is not sufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, which is provided through other interests that will absorb some or all of the expected losses of the entity and (2) the equity investors lack one or more of certain essential characteristics of a controlling interest. FIN No. 46 applies immediately to variable interest entities created after January 31, 2003, and to variable interest entities in which an enterprise obtains an interest after that date. In December 2003, the FASB revised FIN No. 46 to modify the effective date for applying this interpretation, which made it effective for us on January 1, 2004. We will adopt the provisions of FIN No. 46 in the first quarter of 2004 and do not expect the provisions of FIN No. 46 to have a significant effect on our financial position or operating results. We are currently evaluating additional disclosures, if any, that may be required for Emerald.

The preferred shares of Emerald are entitled to a liquidation preference equal to the amount paid by Elan and us for the preferred stock. However, we do not expect to realize any proceeds in connection with these rights or otherwise on the dissolution of Emerald. Both the common stock and preferred stock of Emerald are subject to certain transfer restrictions, other than to an affiliate.

We acquired our 80.1% interest and Elan acquired its 19.9% interest in Emerald in exchange for capital contributions receivable of $12.0 million and $3.0 million, respectively. Both Elan and we licensed intellectual property to Emerald. Emerald valued the technology licensed by Elan to Emerald at $15.0 million, which represented the consideration to be paid under the License Agreement. Simultaneous with the formation of the joint venture, we issued to Elan shares of our Series B convertible exchangeable preferred stock valued at $12.0 million. These shares were issued in exchange for Elan's assumption of our capital contribution to Emerald.

We and Elan funded the expenses of Emerald in proportion to our respective ownership interests. Since formation we provided Emerald cash funding totaling $7.5 million consisting of zero in 2003, $1.9 million in 2002, $2.8 million in 2001 and $2.8 million of cash funding prior to 2001. We and Elan conducted research and development for Emerald and Emerald reimbursed each company for the costs of research and development and related expenses plus a profit percentage. We recorded reimbursements that we received from Emerald as revenue from collaborative agreement with unconsolidated, majority-owned joint venture in the Consolidated Statements of

Operations and we recorded the related expenses in research and development expense. Under a convertible note facility provided to us from Elan, we had the option to borrow up to $12.0 million from Elan to fund our share of Emerald's expenses. We borrowed a total of $8.0 million against this facility consisting of $6.0 million in 2002 and $2.0 million in 2001. During 2003, we converted these loans and $1.4 million of accrued interest payable to Elan into 5,203,244 shares of restricted and unregistered Targeted Genetics common stock. The loans and interest payable to Elan had a scheduled maturity in July 2005.

9. Commitments

We lease our research and office facilities in Seattle, Washington under two non-cancelable operating leases. The lease on our primary laboratory, manufacturing and office space expires in March 2009 and has one option to renew for a five-year period. The lease on our administrative office space expires in March 2009, includes two options to extend the lease for a total of five additional years and includes an option to cancel at any time between April 2006 and March 2009 with certain early termination penalties. We lease a facility in Bothell, Washington under a non-cancelable operating lease that expires in September 2015, which was intended to accommodate future manufacturing of our product candidates. We also lease research and office facilities in Sharon Hill, Pennsylvania, under a non-cancelable operating lease that expires in November 2005.

Future minimum payments under non-cancelable operating leases at December 31, 2003 were as follows:

Year ending December 31,	
2004	$ 2,526,000
2005	2,436,000
2006	2,318,000
2007	2,345,000
2008	2,373,000
Thereafter	10,817,000
Total minimum lease payments	$ 22,815,000

Rent expense under operating leases was $1.7 million in 2003 and $2.9 million in 2002 and 2001. In December 2002 we began implementing a restructuring plan intended to consolidate our operations and to reduce our occupancy and other costs. In connection with this restructuring plan, we vacated our facility in Sharon Hill in February 2003 and began to pursue sublease tenants or otherwise terminate the leases for our Sharon Hill and Bothell facilities. Ongoing lease payments of the Sharon Hill and Bothell facilities reduce the amount of the accrued restructure charges and are not reflected as rent expense under SFAS No. 146 (See Note 4 to the Consolidated Financial Statements).

10. Employee Retirement Plan

We sponsor an employee retirement plan under Section 401(k) of the Internal Revenue Code. All of our employees and those of our subsidiaries who meet the minimum eligibility requirements are eligible to participate in the plan. Our matching contributions to the 401(k) plan are made at the discretion of our board of directors and were zero in 2003, $181,000 in 2002 and $192,000 in 2001. Our board of directors suspended matching contributions from January 1, 2003 through December 31, 2003, and reinstated the matching contribution effective January 1, 2004.

11. Income Taxes

At December 31, 2003, we had net operating loss carry-forwards of approximately $143.0 million and research and tax credit carry-forwards of $6.1 million. The carry-forwards, will begin to expire in 2009 if not utilized. We have provided a valuation allowance to offset the excess of deferred tax assets over the deferred tax liabilities, due to the uncertainty of realizing the benefits of the net deferred tax asset.

Significant components of our deferred tax assets and liabilities were as follows:

	December 31,	
	2003	2002
Deferred tax assets		
Net operating loss carry-forwards	$ 48,560,000	$ 45,150,000
Research and experimental and orphan drug credit carry-forwards	6,130,000	5,420,000
Depreciation and amortization	530,000	1,710,000
Deferred revenue	—	50,000
Other	2,350,000	230,000
Gross deferred tax assets	57,570,000	52,560,000
Valuation allowance for deferred tax assets	(57,570,000)	(52,560,000)
Net deferred tax asset	$ —	$ —

The change in the valuation allowance was $5.0 million for 2003 and $7.0 million for 2002. Our past sales and issuances of stock have likely resulted in ownership changes as defined by Section 382 of the Internal Revenue Code of 1986, as amended. As a result, the utilization of our net operating losses and tax credits will be limited and a portion of the carry-forwards may expire unused.

12. Condensed Quarterly Financial Information (unaudited)

The following tables present our unaudited quarterly results for 2003 and 2002. The loss in the first quarter of 2003 reflect a $2.6 million termination settlement payment from Wyeth as discussed in Note 7 to the Consolidated Financial Statements. The losses in the third quarter of 2003 reflect $2.6 million of revenue from previously deferred payments received from Biogen as discussed in Note 7 to the Consolidated Financial Statements. We believe that the following information reflects all normal recurring adjustments for a fair presentation of the information for the periods presented. The operating results for any quarter are not necessarily indicative of results for any future period.

	Quarter Ended			
	March 31, 2003	June 30, 2003	September 30, 2003	December 31, 2003
Revenue	$ 5,639,000	$ 2,053,000	$ 5,002,000	$ 1,379,000
Restructure charges	281,000	2,899,000	374,000	1,636,000
Loss from operations	(520,000)	(6,611,000)	(452,000)	(6,221,000)
Net loss	(830,000)	(6,915,000)	(780,000)	(6,308,000)
Basic and diluted net loss per common share	(0.02)	(0.13)	(0.01)	(0.10)

	Quarter Ended			
	March 31, 2002	June 30, 2002	September 30, 2002	December 31, 2002
Revenue	$ 5,370,000	$ 4,593,000	$ 4,822,000	$ 4,548,000
Restructure charges	—	—	441,000	1,886,000
Loss from operations	(6,226,000)	(6,271,000)	(4,511,000)	(5,733,000)
Net loss	(6,406,000)	(6,437,000)	(4,834,000)	(6,090,000)
Basic and diluted net loss per common share	(0.15)	(0.15)	(0.11)	(0.12)

13. Subsequent Events

On February 5, 2004, we issued 10,854,257 shares of our common stock in a public offering at a price of $2.35 per share and received net proceeds of approximately $23.8 million.

On February 13, 2004, we sold 158,764 shares of our common stock to Itochu valued at $375,000 and Itochu returned its interest in CellExSys to us.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of disclosure controls and procedures. H. Stewart Parker, our Chief Executive Officer, and Todd E. Simpson, our Chief Financial Officer, after evaluating the effectiveness of our "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this annual report, have concluded that, as of that date, our disclosure controls and procedures were effective in ensuring that information required to be disclosed by us in this annual report is accumulated and communicated by our management, to allow timely decisions regarding required disclosure.

PART III

Item 10. Directors and Executive Officers of Registrant.

The information required by this Item is incorporated by reference to the sections captioned "Proposal One – Election of Directors," "Executive Officers," and "Section 16(a) Beneficial Ownership Reporting Compliance" in the proxy statement for our annual meeting of shareholders to be held on May 20, 2004.

Code of Ethics

We have a Code of Conduct, which applies to all employees, officers and directors of Targeted Genetics. Our Code of Conduct meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K, and applies to our Chief Executive Officer, Chief Financial Officer (who is both our principal financial and principal accounting officer), as well as all other employees. Our Code of Conduct also meets the requirements of a code of conduct under Marketplace Rule 4350(n) of the National Association of Securities Dealers, Inc. Our Code of Conduct is posted on our website at http://www.targetedgenetics.com/investor/corp-info.php under the heading "Corporate Governance".

Item 11. Executive Compensation.

The information required by this Item with respect to executive compensation is incorporated by reference to the section captioned "Executive Compensation" in the proxy statement for our annual meeting of shareholders to be held on May 20, 2004.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters.

The information required by this Item with respect to beneficial ownership is incorporated by reference to the section captioned "Principal Shareholders" and "Securities Authorized for Issuance Under Equity Compensation Plans" in the proxy statement for our annual meeting of shareholders to be held on May 20, 2004.

Item 13. Certain Relationships and Related Transactions.

The information required by this Item with respect to certain relationships and related-party transactions is incorporated by reference to the sections captioned "Executive Compensation—Change of Control Arrangements" and "Executive Compensation—Arrangements with Management" in the proxy statement for our annual meeting of shareholders to be held on May 20, 2004.

Item 14. Principal Accountant Fees and Services.

The information required by this Item with respect to principal accountant fees and services is incorporated by reference to the section captioned "Proposal Three – Ratification of Independent Auditors" in the proxy statement for our annual meeting of shareholders to be held on May 20, 2004.

PART IV

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K.

1. Financial Statements

The following consolidated financial statements are submitted in Part II, Item 8 of this annual report:

2. Financial Statement Schedules

All financial statement schedules have been omitted because the required information is either included in the consolidated financial statements or the notes thereto or is not applicable.

3. Exhibits

3.1	Amended and Restated Articles of Incorporation (Exhibit 3.1)	(S)
3.2	Amended and Restated Bylaws (Exhibit 3.2)	(D)
4.1	Rights Agreement, dated as of October 17, 1996, between Targeted Genetics and ChaseMellon Shareholder Services (Exhibit 2.1)	(C)
4.2	First Amendment of Rights Agreement, dated July 21, 1999, between Targeted Genetics and ChaseMellon Shareholder Services (Exhibit 1.9)	(J)
4.3	Second Amendment to Rights Agreement, dated September 25, 2002, between Targeted Genetics and Mellon Investor Services LLC (formerly known as ChaseMellon Investor Services L.L.C.) (Exhibit 10.1)	(T)
4.4	Third Amendment to Rights Agreement, dated January 23, 2003, between Targeted Genetics and Mellon Investor Services LLC (Exhibit 4.4)	(V)
4.5	Fourth Amendment to Rights Agreement, dated as of September 2, 2003, between Targeted Genetics and Mellon Investor Services LLC (Exhibit 4.1)	(Y)
10.1	Form of Indemnification Agreement between Targeted Genetics and its officers and directors (Exhibit 10.1)	(K)
10.2	Form of Senior Management Employment Agreement between the registrant and its executive officers (Exhibit 10.2)	(D)
10.3	Gene Transfer Technology License Agreement, dated as of February 18, 1992, between Immunex Corporation and Targeted Genetics* (Exhibit 10.3)	(K)
10.4	PHS Patent License Agreement—Non-Exclusive, dated as of July 13, 1993, between National Institutes of Health Centers for Disease Control and Targeted Genetics* (Exhibit 10.4)	(K)
10.5	Patent License Agreement, dated as of December 25, 1993, between The University of Florida Research Foundation, Inc. and Targeted Genetics* (Exhibit 10.5)	(K)
10.6	PHS Patent License Agreement—Exclusive, dated as of March 10, 1994, between National Institutes of Health Centers for Disease Control and Targeted Genetics* (Exhibit 10.10)	(E)
10.7	License Agreement, dated as of March 28, 1994, between Targeted Genetics and the University of Michigan* (Exhibit 10.13)	(E)
10.8	Patent and Technology License Agreement, effective as of March 1, 1994, between the Board of Regents of the University of Texas M.D. Anderson Cancer Center and RGene Therapeutics, Inc.* (Exhibit 10.29)	(A)
10.9	First Amended and Restated License Agreement, effective as of October 12, 1995, between The University of Tennessee Research Corporation and RGene Therapeutics, Inc.* (Exhibit 10.30)	(A)
10.10	Amendment to First Amended and Restated License Agreement, dated as of June 19, 1996, between The University of Tennessee Research Corporation and RGene Therapeutics, Inc.* (Exhibit 10.1)	(B)
10.11	Second Amendment to First Amended and Restated License Agreement, dated as of April 17, 1998, between The University of Tennessee Research Corporation and RGene Therapeutics, Inc.* (Exhibit 10.16)	(G)
10.12	License Agreement, dated as of March 15, 1997, between the Burnham Institute and Targeted Genetics* (Exhibit 10.23)	(E)
10.13	Exclusive Sublicense Agreement, dated June 9, 1999, between Targeted Genetics and Alkermes, Inc.* (Exhibit 10.36)	(I)
10.14	Amendment No. 2 to Exclusive Sublicense Agreement, dated as of May 29, 2003, between Targeted Genetics and Alkermes, Inc.* (Exhibit 10.1)	(X)
10.15	Master Agreement, dated as of November 23, 1998, between Targeted Genetics and Medeva	(H)

	Pharmaceuticals, Inc.* (Exhibit 1.1)	
10.16	License and Collaboration Agreement, dated as of November 23, 1998, between Targeted Genetics and Medeva Pharmaceuticals, Inc.* (Exhibit 1.2)	(H)
10.17	Supply Agreement, dated as of November 23, 1998, between Targeted Genetics and Medeva Pharmaceuticals, Inc.* (Exhibit 1.3)	(H)
10.18	Credit Agreement, dated as of November 23, 1998, between Targeted Genetics and Medeva PLC (Exhibit 1.5)	(H)
10.19	Funding Agreement, dated as of July 21, 1999, among Targeted Genetics, Elan International Services, Ltd., and Elan Corporation, plc (Exhibit 1.3)	(J)
10.20	Subscription, Joint Development and Operating Agreement, dated as of July 21, 1999, among Elan Corporation, plc, Elan International Services, Ltd., Targeted Genetics and Targeted Genetics Newco, Ltd. * (Exhibit 1.4)	(J)
10.21	Convertible Promissory Note, dated July 21, 1999, issued by Targeted Genetics to Elan International Services, Ltd. (Exhibit 1.5)	(J)
10.22	License Agreement dated July 21, 1999, between Targeted Genetics Newco, Ltd. and Targeted Genetics * (Exhibit 1.6)	(J)
10.23	License Agreement, dated July 21, 1999, between Targeted Genetics Newco, Ltd. and Elan Pharmaceutical Technologies, a division of Elan Corporation, plc * (Exhibit 1.7)	(J)
10.24	Office Lease, dated as of October 7, 1996, between Benaroya Capital Company, LLC and Targeted Genetics (Exhibit 10.26)	(D)
10.25	First Lease Amendment, dated May 12, 1997, between Targeted Genetics and Benaroya Capital Company, LLC (Exhibit 10.1)	(R)
10.26	Second Lease Amendment, dated February 25, 2000, between Targeted Genetics and Benaroya Capital Company, LLC (Exhibit 10.2)	(R)
10.27	Third Lease Amendment, dated April 19, 2000, between Targeted Genetics and Benaroya Capital Company, LLC (Exhibit 10.3)	(R)
10.28	Fourth Lease Amendment, dated March 28, 2001, between Targeted Genetics and Benaroya Capital Company, LLC (Exhibit 10.4)	(R)
10.29	Fifth Lease Amendment, dated January 2, 2004, between Targeted Genetics and Benaroya Capital Company, LLC* (Exhibit 10.3)	(AA)
10.30	Canyon Park Building Lease, dated as of June 30, 2000, between Targeted Genetics and CarrAmerica Corporation (Exhibit 10.1)	(L)
10.31	Olive Way Building Lease, dated as of November 20, 1993, as amended, between Targeted Genetics and Ironwood Apartments, Inc. (successor in interest to Metropolitan Federal Savings and Loan Association) (Exhibit 10.29)	(K)
10.32	Fifth Amendment to Lease Agreement, dated as of June 20, 2003, between Targeted Genetics and Ironwood Apartments, Inc. (Exhibit 10.2)	(X)
10.33	Sixth Amendment to Lease Agreement, dated as of November 1, 2003, between Targeted Genetics and Ironwood Apartments, Inc.* (Exhibit 10.1)	(AA)
10.34	1992 Restated Stock Option Plan (Exhibit 99.1)	(F)
10.35	Stock Option Plan for Nonemployee Directors (Exhibit 10.34)	(E)
10.36	1999 Restated Stock Option Plan, as restated on January 23, 2001 (Exhibit 10.2)	(Q)
10.37	2000 Genovo Inc. Roll-Over Stock Option Plan (Exhibit 99.1)	(O)
10.38	Agreement and Plan of Merger dated as of August 8, 2000, among Targeted Genetics, Inc., Genovo, Inc., TGC Acquisition Corporation and Biogen, Inc.* (Exhibit 2.1)	(M)
10.39	Development and Marketing Agreement, dated as of August 8, 2000, between Targeted Genetics, Genovo, Inc. and Biogen, Inc. (Exhibit 10.1)	(N)

10.40	Funding Agreement dated as of August 8, 2000, between Targeted Genetics and Biogen, Inc. (Exhibit 10.2)	(N)
10.41	Amendment to Funding Agreement, dated as of July 14, 2003, between Targeted Genetics and Biogen, Inc. (Exhibit 10.3)	(X)
10.42	Product Development Agreement, dated as of November 9, 2000, between Targeted Genetics and Genetics Institute, Inc. * (Exhibit 10.1)	(P)
10.43	Supply Agreement, dated as of November 9, 2000, between Targeted Genetics and Genetics Institute, Inc.* (Exhibit 10.2)	(P)
10.44	Amendment No. 1 to Product, Development and Supply Agreement, dated February 24, 2003, between Genetics Institute LLC (formerly known as Genetics Institute, Inc.) and Targeted Genetics* (Exhibit 10.41)	(V)
10.45	Industrial Collaboration Agreement, dated as of February 1, 2000, between the International Aids Vaccine Initiative, Inc., Children's Research Institute and Targeted Genetics* (Exhibit 10.1)	(U)
10.46	Amendment No. 1 to Industrial Collaboration Agreement, dated as of March 14, 2003, among the International Aids Vaccine Initiative, Inc., Children's Research Institute and Targeted Genetics* (Exhibit 10.42)	(V)
10.47	Amendment No. 2 to Industrial Collaboration Agreement, dated August 1, 2003, among Targeted Genetics, International Aids Vaccine Initiative, Inc. and Children's Research Institute* (Exhibit 10.2)	(Z)
10.48	Amendment No. 3 to Industrial Collaboration Agreement, dated December 2, 2003, among Targeted Genetics, International Aids Vaccine Initiative, Inc. and Children's Research Institute* (Exhibit 10.2)	(AA)
10.49	Settlement and Termination Agreement, dated as of December 19, 2002, between Celltech Pharmaceuticals Inc., Medeva Limited and Targeted Genetics (Exhibit 10.40)	(V)
10.50	Biological Processing Services Agreement, dated as of March 28, 2003, between GenVec, Inc. and Targeted Genetics* (Exhibit 10.1)	(W)
10.51	Study Funding Agreement, dated as of April 23, 2003, between Targeted Genetics and Cystic Fibrosis Foundation Therapeutics, Inc.* (Exhibit 10.2)	(W)
10.52	Amendment Agreement to Exclusive Sublicense Agreement, dated as of March 12, 2002, between Targeted Genetics and Alkermes, Inc.*	
10.53	Common Stock and Warrants Issuance Agreement, dated June 9, 1999, by and between Targeted Genetics and Alkermes, Inc. (Exhibit 10.37)	(I)
10.54	Warrant Agreements, dated June 9, 1999, by and between Targeted Genetics and Alkermes, Inc. (Exhibit 10.38)	(I)
10.55	Registration Rights Agreement, dated as of July 21, 1999, by and among the Company and EIS.	(J)
21.1	Subsidiaries of Targeted Genetics	
23.1	Consent of Ernst & Young LLP, Independent Auditors	
31.1	Section 302 Certification of Chief Executive Officer	
31.2	Section 302 Certification of Chief Financial Officer	
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	

* Portions of these exhibits have been omitted based on a grant of or application for confidential treatment from the SEC. The omitted portions of these exhibits have been filed separately with the SEC.

(A) Incorporated by reference to the designated exhibit included with Targeted Genetics' Registration Statement on Form S-1 (No. 333-03592) filed on April 16, 1996, as amended.

(B) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended June 30, 1996, filed on August 12, 1996.

(C) Incorporated by reference to Targeted Genetics' Registration Statement on Form 8-A filed on October 22, 1996.

(D) Incorporated by reference to the designated exhibit included with Targeted Genetics' Annual Report on Form 10-K (No. 0-23930) for the year ended December 31, 1996, filed on March 17, 1997.

(E) Incorporated by reference to the designated exhibit included with Targeted Genetics' Annual Report on Form 10-K (No. 0-23930) for the year ended December 31, 1997, filed on March 31, 1998.

(F) Incorporated by reference to the designated exhibit included with Targeted Genetics' Registration Statement on Form S-8 (No. 333-58907), filed on July 10, 1998.

(G) Incorporated by reference to the designated exhibit included with Targeted Genetics' Annual Report on Form 10-K (No. 0-23930) for the year ended December 31, 1998, filed on March 10, 1999.

(H) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on January 6, 1999.

(I) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended June 30, 1999, filed on August 5, 1999.

(J) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on August 4, 1999.

(K) Incorporated by reference to the designated exhibit included with Targeted Genetics' Annual Report on Form 10-K (No. 0-23930) for the year ended December 31, 1999, filed on March 23, 2000.

(L) Incorporated by reference to Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended June 30, 2000, filed on August 11, 2000.

(M) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on August 23, 2000.

(N) Incorporated by reference to the designated exhibit included with Targeted Genetics Current Report on Form 8-K (No. 0-23930) filed on September 13, 2000.

(O) Incorporated by reference to the designated exhibit included with Targeted Genetics' Registration Statement on Form S-8 (No. 333-48220), filed on October 19, 2000.

(P) Incorporated by reference to the designated exhibit included with Targeted Genetics Current Report on Form 8-K (No. 0-23930) filed on February 21, 2001.

(Q) Incorporated by reference to Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended March 31, 2001, filed on May 11, 2001.

(R) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended June 30, 2001, filed on August 14, 2001.

(S) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended June 30, 2002, filed on August 14, 2002.

(T) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on October 11, 2002.

(U) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended September 30, 2002, filed on October 14, 2002.

(V) Incorporated by reference to the designated exhibit included with Targeted Genetics' Annual Report on Form 10-K (No. 0-23930) for the year ended December 31, 2002, filed on March 27, 2003.

(W) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended March 31, 2003, filed on May 15, 2003.

(X) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on July 22, 2003.

(Y) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on October 1, 2003.

(Z) Incorporated by reference to the designated exhibit included with Targeted Genetics' Quarterly Report on Form 10-Q (No. 0-23930) for the period ended September 30, 2003, filed on October 31, 2003.

(AA) Incorporated by reference to the designated exhibit included with Targeted Genetics' Current Report on Form 8-K (No. 0-23930) filed on January 13, 2004.

(b) *Reports on Form 8-K*

On October 1, 2003, Targeted Genetics filed a Current Report on Form 8-K to announce the conversion of approximately $9.4 million in outstanding loans and interest payable to Elan International Services Ltd. into 5,203,244 shares of our common stock.

On October 30, 2003, Targeted Genetics furnished a Current Report on Form 8-K to announce its financial results for the quarter ended September 30, 2003.

On December 9, 2003, Targeted Genetics filed a Current Report on Form 8-K to announce the initiation of a clinical trial of tgAAV09, our AIDS vaccine candidate.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized in the city of Seattle, state of Washington, on March 10, 2004.

TARGETED GENETICS CORPORATION
By: /s/ H. STEWART PARKER
President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints H. Stewart Parker and Todd E. Simpson, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file, any and all amendments to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his or her substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ H. STEWART PARKER H. Stewart Parker	President, Chief Executive Officer and Director (Principal Executive Officer)	March 10, 2004
/s/ TODD E. SIMPSON Todd E. Simpson	Vice President, Finance and Administration and Chief Financial Officer, Secretary and Treasurer (Principal Financial and Accounting Officer)	March 10, 2004
/s/ JEREMY L. CURNOCK COOK Jeremy L. Curnock Cook	Chairman of the Board	March 10, 2004
/s/ JACK L. BOWMAN Jack L. Bowman	Director	March 10, 2004
/s/ JOSEPH M. DAVIE, PH.D., M.D. Joseph M. Davie, Ph.D., M.D.	Director	March 10, 2004
/s/ LOUIS P. LACASSE Louis P. Lacasse	Director	March 10, 2004
/s/ NELSON L. LEVY, PH.D., M.D. Nelson L. Levy, Ph.D., M.D.	Director	March 10, 2004
/s/ MARK P. RICHMOND, PH.D. Mark P. Richmond, Ph.D.	Director	March 10, 2004

Corporate Information

Board of Directors

Jeremy Curnock Cook
Chairman, Targeted Genetics
Executive Chairman
Bioscience Managers Limited

Jack L. Bowman
Chairman and Chief Executive Officer
NeoRx Corporation

Joseph M. Davie, Ph.D., M.D.
Former Senior Vice President, Research
Biogen, Inc.

Louis P. Lacasse
President
GeneChem Management, Inc.

Nelson L. Levy, Ph.D., M.D.
Chairman and Chief Executive Officer
CoreTechs Corporation

H. Stewart Parker
President, Chief Executive Officer
Targeted Genetics Corporation

Mark P. Richmond, Ph.D., D.Sc.
Former Director of Research
Glaxo plc

Management

H. Stewart Parker
President, Chief Executive Officer

Barrie J. Carter, Ph.D.
Executive Vice President
Chief Scientific Officer

Todd E. Simpson
Vice President, Finance and Administration
Chief Financial Officer

Pervin Anklesaria, Ph.D.
Vice President, Product Development

Richard W. Peluso, Ph.D.
Vice President, Process Sciences
and Manufacturing

B.G. Susan Robinson
Vice President, Business Development

Jonathan K. Wright, J.D.
General Counsel

David M. Schubert
President
CellExSys

Kim Wieties Clary, Ph.D.
Senior Director, Intellectual Property

David J. Poston
Senior Director, Finance

Haim Burstein, Ph.D.
Senior Director, Product Discovery

Tim Andrews
Director, Operations

Alison E. Heald, M.D.
Director, Clinical Affairs

Ralph W. Paul, Ph.D.
Director, Technology Evaluation

Rae Saltzstein
Director, Regulatory Affairs
and Quality

Ryan Takeya
Director, Manufacturing

Barbara Thorne, Ph.D.
Director, Process Development

Corporate Headquarters

Targeted Genetics Corporation
1100 Olive Way, Suite 100
Seattle, Washington 98101
Telephone 206.623.7612
www.targetedgenetics.com

Transfer Agent and Registrar

Mellon Investor Services
85 Challenger Road
Ridgefield Park, New Jersey 07660
Telephone 1.800.522.6645

Shareholder Inquiries

Inquiries regarding the company and its activities may be directed to the communications department at 206.521.7392. Communications concerning stock and transfer requirements, lost certificates and changes of address should be directed to the transfer agent.

Legal Counsel

Orrick, Herrington & Sutcliffe LLP
Seattle, Washington

Independent Auditors

Ernst & Young LLP
Seattle, Washington

Corporate Information

News releases, corporate governance documents and SEC filings are available on the Internet at www.targetedgenetics.com.

Stock Listing

Targeted Genetics' common stock is traded on the NASDAQ SmallCap Market under the symbol TGEN.

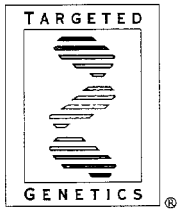
Common Stock

As of March 19, 2004, there are approximately 26,000 holders of Targeted Genetics' common stock. Targeted Genetics has never paid dividends and the company does not anticipate paying dividends in the foreseeable future.

Annual Meeting

The annual meeting of shareholders will be held at 9:00 a.m. on Thursday, May 20, 2004, at the Washington Athletic Club, 1325 Sixth Avenue, Seattle, Washington.

This Annual Report contains forward-looking statements. Forward-looking statements are based on the opinions and estimates of management at the time the statements are made and are subject to known and unknown risks and uncertainties and inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward-looking statements. Our actual results could differ materially from those anticipated in the forward-looking statements for many reasons, including the risks described under "Factors Affecting Our Operating Results, Our Business and Our Stock Price" in our Annual Report on Form 10-K for the year ended December 31, 2003, and in the filings we make with the Securities and Exchange Commission from time to time. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report.



Targeted Genetics

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