UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended: December 31, 1999

or

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

For the transition period from _____ to _____

Commission file No.: 0-28494

MILLENNIUM PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**04-3177038**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

75 Sidney Street, Cambridge, Massachusetts 02139
(Address of principal executive offices) (zip code)

Registrant's telephone number, including area code: **(617) 679-7000**

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities registered pursuant to Section 12(g) of the Act: **Common Stock, $.001 par value**
(Title of class)

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. Yes ☒

The aggregate market value of voting Common Stock held by non-affiliates of the registrant was $7,223,598,521 based on the last reported sale price of the Common Stock on the Nasdaq Stock Market on January 31, 2000.

Number of shares outstanding of the registrant's class of Common Stock as of January 31, 2000: 44,965,975.

Documents incorporated by reference:

Definitive Proxy Statement for the 2000 Annual Meeting of Stockholders—Part III

PART I

Item 1. BUSINESS

Overview

Our goal is to become the biopharmaceutical company of the future by building on our technology platform to develop breakthrough drugs, or therapeutics, and predictive medicine products using an integrated approach that we call "gene to patient." We are implementing a strategy to integrate the initial discovery of disease-related genes, the development of drugs specific for these diseases and the management of patients affected by these diseases. To achieve this objective, we have assembled and continually seek to expand our comprehensive technology platform which integrates multiple high-throughput technologies in an effort to increase the speed of drug discovery and development and improve the resulting drugs.

We have established strategic alliances with major pharmaceutical and biotechnology companies to discover, develop and commercialize a broad range of therapeutic and predictive medicine products. These alliances provide us with the opportunity to receive royalties and profit sharing if we and our partners are successful in developing and commercializing products. In addition, these alliances provide substantial funding for our research and development programs and the continued enhancement of our technology platform.

Key Transactions and Recent Developments in 1999

Strategic Alliances. On February 22, 1999, Millennium Predictive Medicine, Inc., or MPMx, our majority-owned subsidiary, entered into an alliance with Becton, Dickinson and Company in several areas of cancer pharmacogenomics and Diagnomics™ products. "Diagnomics" is a term we use to describe gene-based diagnostic tests to determine a patient's medical status and facilitate cost-effective treatment. Pursuant to the alliance, MPMx is conducting a research program to identify genetic markers and related assays that may be used to develop diagnostic products for several types of cancers. Becton Dickinson has agreed to manufacture and market any products that result from the alliance.

On November 11, 1999, MPMx entered into an alliance with Bristol-Myers Squibb in the field of cancer pharmacogenomics. The alliance will coordinate the development of therapeutic products and pharmacogenomic tests. Bristol-Myers Squibb has agreed to commercialize any therapeutic products resulting from the alliance. Any pharmacogenomic tests resulting from the alliance will be commercialized by one or more leading diagnostic companies selected by MPMx and Bristol-Myers Squibb.

In December 1999, a partnership of LeukoSite, Inc., which we acquired in December 1999 as described below, and ILEX Oncology, Inc., submitted a Biologics License Application, or BLA, to the United States Food and Drug Administration seeking marketing approval of CAMPATH® (alemtuzamab), an investigational humanized monoclonal antibody for the treatment of chronic lymphocytic leukemia. In February 2000, the FDA informed the partnership that the BLA was accepted for filing and has received "fast track" designation.

In January 2000, we signed an agreement with Taisho Pharmaceutical Company, Ltd. regarding the licensing of LDP-977, a small molecule drug candidate, for the treatment of chronic asthma. Under the arrangement, Taisho will hold an exclusive license to LDP-977 in Japan, Asia and Europe while we will retain rights for the rest of the world, including North America. Taisho has agreed to fund all of the research and development expenses of the compound in Japan and Asia, and two-thirds of the expenses in the United States and Europe. Taisho has the right of first negotiation for commercialization in the U.S. should we seek to sublicense in that territory.

Share Exchange with Eli Lilly. On October 14, 1999, we entered into a Share Exchange Agreement with Eli Lilly and Company. Pursuant to this agreement, Lilly was issued 375,000 shares of our common stock in exchange for all of Lilly's shares of Series B Convertible Preferred Stock of Millennium BioTherapeutics, Inc., or MBio, our then majority-owned subsidiary.

Amendment to MBio Strategic Alliance with Lilly. Also on October 14, 1999, MBio amended the terms of its strategic alliance with Lilly. Under the amendment, the research program was refocused from the discovery of new therapeutic proteins to the further development of the therapeutic proteins which had been identified in the course of the research program. The research program will now end in May 2000, and Lilly's funding obligations under the refocused research program were waived. As amended, each party's non-exclusive license to use the genes and proteins from the jointly-funded program in its small molecule drug discovery program is a non-royalty bearing license.

As part of the amendment and in accordance with the original terms of this alliance, Lilly received royalty-bearing worldwide exclusive rights to develop and commercialize 25% of the therapeutic proteins discovered under the research program. MBio received non-royalty bearing, worldwide exclusive rights to develop and commercialize 75% of the therapeutic proteins discovered under the research program. In the event that Lilly achieves product development and regulatory milestones in its development of the therapeutic proteins exclusively licensed to it from the alliance, Lilly will be obligated to make milestone payments.

Reacquisition of Minority Interest in MBio. On December 21, 1999, we reacquired the remaining minority equity interest in MBio through a merger of MBio into us. We issued an aggregate of approximately 267,462 shares of our common stock to the former MBio shareholders in the merger. In addition, we assumed MBio's outstanding employee stock options, which represented an aggregate of 67,756 shares of our common stock. As a result of the merger, we integrated MBio's research and development programs with our pharmaceutical division.

Acquisition of LeukoSite. On December 22, 1999, we acquired LeukoSite, Inc. in a stock-for-stock merger. We issued an aggregate of approximately 6,676,933 shares of our common stock to the former LeukoSite shareholders in the merger. In addition, we assumed LeukoSite's outstanding employee stock options, rights and warrants which are exercisable for an aggregate of 884,087 shares of our common stock. The acquisition of LeukoSite has enabled us to broaden our pipeline of small molecule and biotherapeutic drug candidates in the areas of oncology and inflammation. We also obtained significant expertise in drug discovery, chemistry, the development of monoclonal antibody products and clinical and regulatory affairs.

Convertible Note Offering. On January 14, 2000, we completed a Rule 144A offering to qualified institutional buyers of $400 million of 5.5% Convertible Subordinated Notes due January 15, 2007. The notes are convertible into our common stock at a price equal to $168.28 per share, subject to adjustment, and can be redeemed by us at any time after January 15, 2003. The holders of the notes can, under specified circumstances, require us to repurchase the Notes if a change of control occurs.

Industry Background

The discovery and development of new drugs typically involves several steps and many years of work. The first step is the identification of a drug "target" for therapeutic intervention—a molecule or structure somewhere in the body, inside or on the surface of cells, which is either directly related to the disease or lies in a biochemical pathway involved in the disease. The next step is to identify compounds which interact with this drug target and modulate the drug target's activity in a manner that might help reverse, inhibit or prevent the disease process. This step is normally accomplished by screening large collections, referred to as libraries, of synthetic chemicals and natural products in a trial-and-error process designed to identify those compounds that can interact with the drug target.

The most promising compounds to emerge from this process are advanced to the next stage, in which synthetic derivatives of these compounds are generated and tested to arrive at one or a few so-called lead compounds. Positive interactions of these lead compounds with the drug target and the subsequent activity in animal or cellular models of the disease may suggest that these compounds can be developed successfully into new drugs. The best of these lead compounds are then subjected to rigorous testing, first in animals and then in humans, to establish their safety and efficacy as drugs.

The selection of new targets for drug discovery historically has been an inefficient process because of the lack of knowledge of the underlying disease causes. Drug targets have often been selected based on speculation that they might be involved in disease processes, rather than because of any clear, well-documented association with specific diseases. As a result, many drug candidates fail during clinical trials because they turn out to be ineffective or unsafe. Moreover, many drugs that do reach the market treat only the symptoms of diseases rather than their underlying causes.

In recent years, however, the drug discovery process has changed, beginning with the process for discovering drug targets. Fueled by a broad interest in determining the entire DNA sequence of the human genome, scientists have made major improvements in the technologies available for identifying and cataloguing genes in complex organisms. These technologies include high-throughput methods for sequencing genes, for monitoring and comparing the expression of genes in different situations and for following the inheritance of genes in families prone to particular diseases. The integration of molecular biology with robotics, information technology and analytical instrumentation is crucial to these technologies. The integration of these disciplines provides powerful capabilities for generating, capturing and analyzing large volumes of data concerning genes and their expression, making it possible for the first time to mount a systematic search to discover and characterize the genes and biochemical pathways which underlie human diseases.

Major advances have also recently been made in the technologies available for screening synthetic chemical and natural-product libraries to identify compounds active against specific drug targets and for the subsequent generation of lead compounds optimized for their activity against these drug targets. As with the advances in target discovery, the advances in drug discovery depend heavily on robotics, information technology and analytical instrumentation, coupled with novel combinatorial approaches to the synthesis of chemical libraries.

Another important recent development in biotechnology has been the emergence of monoclonal antibody-based drugs as successful therapeutics. Monoclonal antibodies, which are specially produced proteins that play a role in the immune system, have long held great potential as drugs because, by their nature, they recognize and interact with target molecules in a highly specific way. However, early therapeutic monoclonal antibodies were generated in non-human animals and, therefore, were recognized by the body as foreign and neutralized by the immune system. Recently, it has become possible to produce humanized monoclonal antibodies that appear less foreign to the body, and even to produce completely human monoclonal antibodies in quantity. As a result, monoclonal antibodies are now realizing their potential as drugs, with several successfully on the market, and many more in advanced clinical development.

We believe that the combined effect of these developments has reduced and will continue to reduce the risk, time and expense associated with the development of new drugs. These developments have created an opportunity for biopharmaceutical companies with cutting edge technologies to deliver new classes of drugs which are safe and effective for treating a broad range of important diseases in diverse individuals.

Our Strategy

We combine a variety of proprietary and non-proprietary technologies and know-how to systematically study genes in the context of disease and to discover and develop proprietary therapeutic

and diagnostic human healthcare products and services. We believe that our platform is unique in the breadth and diversity of the technologies that it encompasses, and the degree to which we have integrated these technologies. We use advanced capabilities in information technology, robotics, genetics, genomics, molecular biology, cell biology, immunology, biochemistry, chemistry and analytical instrumentation. By combining these capabilities, we have created a series of high-throughput processes that we believe have the potential to improve the efficiency of the discovery and development of therapeutic and diagnostic products, as well as the quality of these products. We believe that these products will change the practice of medicine.

Our business is built on three principal components:

Technology. We use many technologies in each step of the therapeutic and diagnostic product discovery and development processes. We seek the most advanced methods available to integrate into our technology platform, whether developed internally or licensed from third parties in order to increase the efficiency and productivity of these processes. We believe that our platform will enable us to:

- identify commercially important genes;
- elucidate their functions;
- validate targets for product development; and
- identify and develop drug and diagnostic candidates for clinical development.

Therapeutics. We have three fields of major emphasis: cancer, metabolic diseases (including obesity) and inflammation. We also have significant programs in infectious diseases, cardiovascular diseases and diseases of the central nervous system. We seek to discover disease-related genes, produce validated drug targets and drug leads, and develop new, proprietary drugs to treat major human illnesses. We focus on developing small-molecule drugs, which are typically formulated into pills for oral consumption, as well as proteins and monoclonal antibodies, which are typically only available in injectable form.

Predictive Medicine. Through MPMx, we seek to develop products and services that will provide clinicians and pharmaceutical researchers with information that enables them to make better informed decisions about drug treatment and other aspects of patient management. Our core areas of focus include Diagnomics™ products and pharmacogenomics. A Diagnomics™ product is a gene-based diagnostic test to determine the patient's medical status and facilitate cost-effective treatment. Pharmacogenomics is the identification of genes, or their activity, associated with responsiveness to particular drugs. We believe that the products and services being developed by MPMx will enable physicians to customize medical treatment by providing them with the ability to identify the genetic basis for a patient's disease and select the most appropriate drugs for the particular patient.

The key initiatives to implement our strategy are:

Establish and expand strategic alliances. Based on the strength of our technology platform and product pipeline, we have established a series of strategic alliances with major pharmaceutical and biotechnology companies. These alliances provide us with substantial revenues and other financing, furnish us with access to important technology, broaden our product development pipeline and reduce our product development risks. These alliances also enhance our ability to bring products to market because of our partners' substantial resources and expertise in research, preclinical and clinical development, regulatory issues, manufacturing and marketing.

Expand downstream pipeline and other skills through acquisitions. We continually consider joint development, merger and other acquisition opportunities that may provide us with access to products currently on the market or which are in later stages of commercial development or may bring us

scientific or other skills that enhance our existing capabilities. For example, through our merger with LeukoSite, we obtained six drug candidates in clinical development and more than 12 pre-clinical development programs. In addition, as a result of the LeukoSite merger, we augmented our capabilities in the areas of immunology, preclinical and clinical development and regulatory affairs. We believe that integrating these capabilities will facilitate bringing our internally developed products to market quickly and efficiently.

Enhance proprietary technology platform. We are committed to constantly enhancing our technology platform by incorporating the latest technological advances. Our technology enhancement efforts are based on our own internal development efforts and our program to identify, evaluate and integrate technologies licensed from third parties. The quality of our technology platform has been central to our ability to attract a broad range of strategic alliances with major pharmaceutical and biotechnology companies. The platform also has enabled us to create a technology transfer alliance in the area of agriculture with the Monsanto Company.

Technology

Our broad technology platform is based on multiple parallel approaches to high-throughput product discovery and development which are integrated through the latest advances in enabling technologies and informatics. The enabling technologies include robotics, fluidics, miniaturization and analytical instrumentation. Informatics consists of the tracking, synthesizing and interpretation of the enormous volumes of data generated in high-throughput discovery of genes, drug targets and drugs.

The following chart illustrates how we apply various processes of our technology platform to the principal steps in the discovery and development of drugs, spanning from gene to patient.

		PROCESSES														
	STAGE	Genetics	DNA Sequencing	Expression cloning	Transcriptional profiling	Functional genomics	Proteomics	Computational biology	Bench biology	Pathway profiling	Pharmacogenomics	Chemistry	Computational chemistry	Predictive pharmacology	Clinical research	Regulatory affairs
GENE	Gene identification	●	●	●	●	●	●	●	●	●						
	Target identification	●		●	●	●	●	●	●	●	●					
	Target validation	●		●	●	●	●	●	●	●	●					
	Lead identification and optimization				●			●	●			●	●	●		
	Preclinical candidate identification and validation				●		●		●	●	●	●	●	●		●
	Clinical trials	●			●						●			●	●	●
PATIENT	Patient management	●			●						●					●

- ***Human, mouse and microbial genetics*** involve the identification of genes associated with diseases or with the ability of microbes to survive.
- ***High-throughput sequencing*** enables the rapid determination of DNA sequence information from large numbers of genes.
- ***Expression cloning*** means the isolation and identification of genes according to the biological properties of the proteins they encode.
- ***Transcriptional profiling*** is the rapid identification of genes whose activity in the body changes under disease conditions.
- ***Functional genomics*** are the assignment of biochemical functions and disease roles to genes and the selection of the relatively small number of genes that will be appropriate targets for therapeutic intervention.
- ***Proteomics*** constitutes the identification of proteins, or changes to proteins, associated with particular diseases.
- ***Computational biology*** is the rapid analysis of the DNA sequences of genes to identify those which encode potential targets for drugs.
- ***Bench biology***, using cellular and animal models, is utilized for the experimental confirmation of hypotheses that particular genes or proteins could be good targets for drugs.
- ***Pathway profiling*** identifies multiple genes that may be involved in the initiation, progression or maintenance of a disease.
- ***Pharmacogenomics*** constitutes the identification of genes, or their activity, associated with responsiveness to particular drugs.
- ***Chemistry*** is utilized for the identification and optimization of small-molecule compounds active against particular drug targets.
- ***Computational chemistry*** is employed to enable the modeling and analysis of chemical structures and their interactions with drug targets.
- ***Predictive pharmacology*** enables the prediction of likely behaviors of drug candidates when they are administered to humans.
- ***Clinical research*** is conducted to assess the safety and efficacy of drugs in humans.
- ***Regulatory affairs*** is the process of gaining necessary approvals from the appropriate governmental agencies that control the testing and marketing of drugs.

Alliances

A fundamental component of our business strategy is to form alliances with major pharmaceutical and biotechnology companies. In general, our alliances fall into three categories:

- Alliances focused on particular diseases, in which we perform drug discovery research funded by our partners. Our largest disease-focused alliance is with Bayer AG. This is a five-year alliance formed in September 1998, under which we are eligible to receive up to $465 million from Bayer, including a $96.6 million equity investment. This equity investment and a portion of the other funding has already been received. In September 1999, we announced that we had successfully identified 18 novel drug targets in this alliance and moved four of these targets into high-throughput screening in less than eight months. The targets identified have relevance across multiple disease areas.

- Alliances focused on drug discovery for specific targets or the development of a specific product candidate. One of our key target-specific discovery alliances is with Warner-Lambert, focused on CCR5 and CXCR3 chemokine receptors as potential targets for anti-HIV drugs. One of our key product development alliances is with ILEX Oncology, Inc., focused on the clinical development of the CAMPATH® monoclonal antibody.
- Alliances based on the transfer of our technology platform. Our major technology transfer alliance is with Monsanto Company in the area of agriculture. This is a five-year alliance formed in October 1997, under which we are eligible to receive up to $218 million from Monsanto. A portion of this funding has already been received.

Our alliance agreements generally provide for the funding by our alliance partner of a research program to be conducted by us in conjunction with the partner and the grant of exclusive license rights by us to our partner to develop and commercialize specified products and services resulting from discoveries made in the research program. In many cases, we have retained development and commercialization rights for ourselves to certain therapeutic and diagnostic applications of discoveries made in the research program. If specified research, product development or regulatory milestones are achieved, our alliance partners are obligated to make milestones payments to us. In addition, our alliance agreements generally entitle us to royalties or a share of profits on product sales, which are payable for the life of the applicable patents or a specified period of time.

The agreements governing our alliances are subject to various contingencies, including in some cases, early termination rights. We have generally agreed with our alliance partners that, for a specified period of time while the alliance is in place, we will not conduct certain research, independently or with third parties, in the fields covered by the alliance agreement.

Substantially all of our revenues are derived from our strategic alliances. For the twelve-month period ended December 31, 1999, revenues from our strategic alliances with Bayer, Monsanto and American Home Products accounted for approximately 45%, 20% and 10%, respectively, of our total revenues.

The following table sets forth certain information about our principal current alliances:

Year Established	Alliance Partner	Alliance Type	Subject
2000	Taisho Pharmaceutical	Product development	LDP-977—asthma
1999	Schering AG/Berlex Laboratories	Product distribution	CAMPATH® monoclonal antibody—chronic lymphocytic leukemia
1999	Bristol-Myers Squibb	Disease-focused	Cancer pharmacogenomics
1999	Becton Dickinson	Disease-focused	Cancer diagnostics
1998	Warner-Lambert	Target-specific discovery	a4b7 and aEb7 integrins—inflammation
1998	Bayer	Disease-focused	Cardiovascular diseases, cancer, pain, osteoporosis, liver diseases, blood diseases and viral infections
1997	Kyowa Hakko	Target-specific discovery	CCR1 and CXCR3 chemokine receptors—inflammation
1997	Monsanto	Technology transfer	Agriculture
1997	Genentech	Product development	LDP-02—inflammation
1997	Warner-Lambert	Target-specific discovery	CCR5 and CXCR4 chemokine receptors—HIV
1996	American Home Products	Disease-focused	Bacterial diseases
1996	ILEX Oncology	Product development	CAMPATH® monoclonal antibody
1996	Roche Bioscience	Target-specific discovery	CCR3 chemokine receptor—inflammation
1996	American Home Products	Disease-focused and technology transfer	Central nervous system diseases
1996	Eli Lilly	Disease-focused	Cancer
1995	Aventis	Target-specific discovery	NF-KB—inflammation
1995	Pfizer	Disease-focused	Fungal diseases
1995	Eli Lilly	Disease-focused and technology transfer	Cardiovascular diseases
1995	Warner-Lambert	Target-specific discovery	CXCR1,2 chemokine receptor—inflammation
1994	Warner-Lambert	Target-specific discovery	CCR2 chemokine receptor—inflammation

Clinical Programs

We have six drug candidates in clinical development. These clinical drug candidates, our alliance partners for these clinical programs and the current status of the clinical programs are summarized below:

Product	Disease Indication	Partner	Clinical Phase
CAMPATH® monoclonal antibody	Cancer (Chronic lymphocytic leukemia)	50/50 partnership between Millennium and ILEX Oncology; distribution agreement with Schering AG/ Berlex Laboratories	Biologics License Application submitted December 1999
CAMPATH® monoclonal antibody	Multiple Sclerosis	Same as above	Phase II
CAMPATH® monoclonal antibody	Transplantation	Same as above	Phase II
LDP-02	Inflammatory Bowel Disease	Genentech	Phase IIa
LDP-977	Asthma	Marketing agreement with Taisho in Asia and Europe	Phase Ila
LDP-01	Stroke	Not partnered	Phase Ila
LDP-341	Cancer	Not partnered	Phase I
LDP-519	Stroke	Not partnered	Phase I

Human clinical trials typically are conducted in three sequential phases, although phases may overlap. Phase I trials consist of testing the product in a small number of patients or healthy volunteers, primarily for safety, in one or more dosages, as well as characterization of a drug's pharmacokinetic or pharmacodynamic profile. In Phase II, in addition to safety, the efficacy of the product is evaluated in a patient population. Phase III trials typically involve additional testing for safety and clinical efficacy in an expanded population at multiple geographically dispersed sites.

Research and Development Programs

Using our advanced technology platform, we seek to discover and develop proprietary therapeutic and diagnostic human healthcare products and services to detect, treat and manage a broad array of illnesses. We have three therapeutic fields of major emphasis: oncology, metabolic diseases (including obesity) and inflammation. We also have significant programs in infectious diseases, cardiovascular diseases and diseases of the central nervous system. The following is a summary of our principal research and development programs:

Cancer

In the field of cancer, or oncology, we are engaged in the discovery and development of both therapeutic and predictive medicine products. In therapeutics, we are engaged in clinical development of two compounds and in target and drug discovery, primarily through strategic alliances. In predictive

medicine, we are developing diagnostic and pharmacogenomics products, primarily through strategic alliances. Our programs address a variety of cancers, including leukemia, prostate, breast, lung, colorectal cancer and melanoma.

The following two cancer product candidates are in clinical trials:

The CAMPATH® product is a humanized monoclonal antibody being evaluated for the treatment of patients with chronic lymphocytic leukemia, which is the most prevalent form of adult leukemia. This product is owned by an equal partnership between us and ILEX Oncology. The partnership completed the submission to the FDA in December 1999 of a biologics license application for the CAMPATH® product for patients who are not responsive to traditional therapy. The FDA has granted fast track status to its review of this application. The partnership has entered into a worldwide (other than the Far East) distribution agreement with Schering AG and its affiliate, Berlex Laboratories. CAMPATH® monoclonal antibody has received an orphan drug designation from the FDA, which may entitle it to a seven-year exclusivity period in the United States if it is the first drug approved for the treatment of patients with chronic lymphocytic leukemia.

LDP-341 is a small-molecule drug candidate for the treatment of diverse cancers, including prostate cancer. We initiated Phase I clinical trials of LDP-341 in August 1999. LDP-341 has a unique mechanism of action, inhibition of the proteasome, which is the cellular component responsible for protein degradation.

We have entered into two strategic alliances for target and drug discovery and two strategic alliances for predictive medicine in cancer:

Lilly. We have an alliance with Lilly focused on finding small-molecule drug targets in select areas of cancer, including prostate cancer and mechanisms of drug resistance. We received three milestone payments from Lilly during 1999 under this alliance for the delivery of two cancer drug candidate genes in August 1999 and the acceptance of a validated target for prostate cancer drugs in December 1999.

Bayer. Our multi-disease alliance with Bayer includes discovery of small-molecule drug targets for areas of cancer outside of our Lilly collaboration.

Bristol-Myers Squibb. Through MPMx, we have an alliance with Bristol-Myers Squibb in the area of pharmacogenomics for cancer treatment. We and Bristol-Myers Squibb are seeking to use genetic and related information to develop new anti-cancer therapies to treat specific patient populations and tumor types, as well as to tailor existing therapies to individual patients.

Becton Dickinson. MPMx has an alliance with Becton Dickinson to develop tests designed to provide individualized cancer diagnostic and prognostic information, assist in treatment selection for patients with cancer and improve the prediction of cancer patient healthcare outcomes. We plan to provide clinically validated diagnostic markers to Becton Dickinson for skin, cervical, breast, ovarian, uterine, prostate and colon cancers. A diagnostic marker is a molecule or substance whose presence or concentration can be measured in a biological sample taken from a patient, providing useful information about the patient's status or future prospects with respect to a particular disease or diseases.

Metabolic diseases

In the field of metabolic diseases, we are engaged in target and drug discovery, both independently and in a strategic alliance with Bayer.

- *Obesity; type 2 diabetes*. From March 1994 until March 1999, we were engaged in a strategic alliance with Hoffmann-La Roche in the fields of obesity and type 2 diabetes. This alliance provided Roche with several novel targets for obesity drugs, which Roche continues to pursue.

We will be entitled to milestone payments and royalties in connection with any drugs Roche succeeds in developing against these targets. Independent of the Roche alliance, we have identified and validated several additional targets and lead compounds for the treatment of obesity. Roche does not have rights to these additional targets or compounds.

- *Bayer.* Our multi-disease alliance with Bayer includes discovery of small-molecule drug targets for osteoporosis.

Inflammation

In the field of inflammation, we are engaged in clinical development of four products, target-specific drug discovery and development programs, primarily in strategic alliances, and in independent target and drug discovery programs. Inflammation encompasses a broad spectrum of human diseases and conditions—including diseases such as asthma, stroke, inflammatory bowel diseases and rheumatoid arthritis.

The following inflammation products are in clinical trials:

- *LDP-977* is a small-molecule drug candidate for the treatment of asthma. LDP-977 is designed to selectively inhibit the production of leukotrienes, a class of molecules that plays an important role in bronchial asthma. A Phase IIa trial of LDP-977 commenced during the fourth quarter of 1999. In January 2000, we entered into an agreement with Taisho Pharmaceutical relating to the development, marketing and sale of LDP-977 in Europe and Asia.
- *LDP-519* is a small-molecule drug candidate for the treatment of post-ischemic reperfusion injury, which is inflammatory damage that occurs when blood supply to a tissue is restored after an interruption such as that resulting from organ transplantation, stroke or myocardial infarction. We initiated a Phase I clinical trial of LDP-519 in November 1999. As with LDP-341, LDP-519 acts through the inhibition of the proteasome.
- *LDP-02* is a humanized monoclonal antibody for the treatment and management of patients with inflammatory bowel disease, including ulcerative colitis and Crohn's disease. We have a collaboration agreement with Genentech for the development and commercialization of LDP-02. A Phase lla study of LDP-02 for the treatment of ulcerative colitis was recently completed. We have not yet received the data from this trial. We expect to initiate a Phase II trial of LDP-02 for the treatment of Crohn's disease in the first quarter of 2000.
- *LDP-01* is a humanized monoclonal antibody for prevention of post-ischemic reperfusion injury. We initiated a Phase IIa clinical trial of LDP-01 in 1998. We are aware of third party patents and patent applications that relate to certain antibodies and their use in the treatment of reperfusion injury. See "Risk Factors That May Affect Results—Risks Relating to Intellectual Property—Others may own or control patents or patent applications and require us to seek licenses or block our commercialization efforts."

We are also engaged in two strategic alliances and one independent program for target-specific drug discovery and development in the field of inflammation:

- *Roche Bioscience.* We have an alliance with Roche Bioscience to develop a small molecule antagonist of a chemokine receptor known as CCR3 to block the recruitment of inflammatory cells for the treatment of patients with asthma and allergies.
- *Warner-Lambert and Kyowa Hakko.* We have related collaboration agreements with Warner-Lambert and Kyowa Hakko for the discovery and development of small molecule antagonists to certain chemokine receptors for the treatment of inflammatory and autoimmune diseases. We also have a collaboration agreement with Warner-Lambert to discover and optimize small molecule lead candidates using receptors, related to inflammatory bowel disease and asthma.

- *Target discovery*. From 1995 until 1999, we were engaged in a strategic alliance with AstraZeneca to discover novel drug targets in the field of inflammatory respiratory disease. This alliance provided AstraZeneca with novel targets for respiratory inflammation drugs which AstraZeneca continues to pursue. We are entitled to receive milestone payments and royalties in connection with any drugs AstraZeneca succeeds in developing against these targets and commercialization. Independent of the alliance, we are undertaking several target and drug discovery projects in the field of inflammation. AstraZeneca does not have any rights to these targets or drugs.

Infectious Diseases

Bacterial Infections. We are engaged in identifying and validating new targets for antibacterial drugs and in high-throughput screening to identify potential lead compounds. We are conducting these activities in collaboration with American Home Products. During the three years of this alliance we have delivered nine antibacterial targets to American Home Products, and have received multiple milestone and bonus payments for doing so.

Viral Infections. We have a strategic alliance with Warner-Lambert for the discovery and development of a small molecule antagonist to the chemokine receptors known as CCR5 and CXCR4. Such drugs may be useful in the treatment of patients infected with HIV and as a therapy for certain inflammatory and autoimmune diseases.

Our multi-disease collaboration with Bayer includes the discovery of drug targets that may enable the development of novel small-molecule compounds for the treatment of patients with certain viral diseases.

Fungal Infections. We are engaged in the identification and validation of new targets for antifungal drugs and in high-throughput screening to identify potential lead compounds. We are conducting these activities in a collaboration with Pfizer.

Cardiovascular Diseases

In the field of cardiovascular diseases, we are engaged in the identification and validation of new drug targets. We are conducting this activity in collaboration with Eli Lilly in connection with atherosclerosis and congestive heart failure and with Bayer in connection with other cardiovascular diseases. In December 1998 we announced that we had delivered a total of five cardiovascular drug targets to Lilly and had received various milestone payments in return.

Central Nervous System Diseases

In the field of central nervous system diseases, we are engaged in the identification and validation of new drug targets for the treatment of affective disorders, schizophrenia, generalized depression, epilepsy and neurodegenerative disorders, such as Alzheimer's disease. We have a strategic alliance with American Home Products in the area of central nervous system diseases. The area of pain is included in our multi-disease alliance with Bayer. We had previously delivered two novel genes to American Home Products under this alliance, receiving milestone payments in return.

Millennium Predictive Medicine, Inc.

Our majority-owned subsidiary, Millennium Predictive Medicine, Inc., is applying our technology platform to develop products and services that will provide clinicians and pharmaceutical researchers with information that enables them to make better informed decisions about drug treatment and other aspects of patient management. MPMx initially is focusing its efforts on diagnostics and pharmacogenomic services. We have generally agreed to transfer to MPMx all product development opportunities and technology rights in MPMx's core area of interest, which includes Diagnomics™ products, pharmacogenomics and the provision of patient management services to the healthcare industry. Reciprocally, MPMx has generally agreed to transfer to us all product development opportunities and technology rights outside MPMx's core area of interest.

Diagnomics™ Products

Many current diagnostic tests are directed towards the symptoms, rather than the causes, of the diseases that they are used to diagnose or monitor. As a result, these tests generally provide information only about a patient's current condition. In contrast, we are developing gene-based diagnostic tests, which we call Diagnomics™ tests, to assess the underlying causes of diseases. We believe that Diagnomics™ products and services will provide information with inherent prognostic, therapeutic and economic implications, facilitating a shift in medical care towards planned and cost-effective treatment of the underlying causes of disease.

The initial focus for MPMx's Diagnomics™ program is cancer. In February 1999, MPMx entered into a strategic alliance with Becton Dickinson focused primarily on Diagnomics™ products for cancer. In conjunction with Becton Dickinson, MPMx has developed the Melastatin™ product, a clinical marker used to diagnose melanoma. Becton Dickinson plans to introduce the Melastatin™ product to the market by the end of 2000. Although the potential market for the Melastatin™ product is small, we believe that the introduction of this product will provide initial validation of our Diagnomics™ approach.

Pharmacogenomics

Different people often respond in different ways to the same drug. A drug that is safe and effective in one patient may be toxic or ineffective in another. We believe that these differences in response reflect underlying genetic differences between the individuals concerned. Pharmacogenomic studies seek to establish correlations between specific genetic variations and specific responses to drugs. By establishing such correlations, pharmacogenomics may permit both new and existing drugs to be targeted to those patients in whom they are most likely to be both effective and safe. In November 1999, MPMx entered into a strategic alliance with Bristol-Myers Squibb focused primarily on the application of pharmacogenomics to cancer treatments.

Technology Alliances

We are engaged in, and will continue to seek, alliances involving the transfer of our technology platform.

Monsanto. We have a broad collaboration with Monsanto relating to the application of genomics technologies in Monsanto's life-science-based businesses. In connection with this collaboration, Monsanto has established a wholly-owned subsidiary, Cereon Genomics, based in Cambridge, Massachusetts. We have granted Cereon and Monsanto an exclusive license to use our genomics technologies in plant agriculture and certain aspects of dairy agriculture. We also granted a non-exclusive license to Monsanto to apply our genomics technologies outside of these fields.

Other Technology Alliances. Two of our disease-focused alliances with Eli Lilly and American Home Products also include the transfer of rights in certain aspects of our technology platform.

Therapeutic Protein Alliance

In May 1997, through MBio, we entered into an alliance with Eli Lilly for the discovery and development of therapeutic proteins, which are proteins that can be used directly as drugs. Recently, we reconfigured the collaboration with Lilly to focus on later-stage therapeutic protein candidates that had already been identified in the alliance. We waived Lilly's remaining research funding obligations. We will be entitled to receive milestone payments and royalties on any drugs developed by Lilly from the pool of protein candidates discovered in the alliance. We merged MBio into us in December 1999.

Research and Development

Our total research and development expenses were $74.8 million in 1997, $114.2 million in 1998 and $159.6 million in 1999, not including expenditures by LeukoSite. LeukoSite's total research and development expenses were $12.0 million in 1997, $21.1 million in 1998 and $31.7 in 1999. Sponsored research and development revenues totaled $89.9 million in 1997, $133.7 million in 1998 and $128.6 million in 1999 for Millennium, and $5.7 million in 1997, $12.1 million in 1998 and $14.5 million in 1999 for LeukoSite. Sponsored research and development expenditures totaled $7.6 million in 1997, $16.8 million in 1998 and $23.1 million in 1999 for Millennium, and $0.3 million in 1997, $0.4 million in 1998 and $0.9 million in 1999 for LeukoSite. In 2000 we expect research and development expenditures to increase significantly over 1999 as personnel are added and research and development activities are expanded to accommodate existing and any additional strategic alliances and development efforts, and as a result of the addition, through the LeukoSite acquisition, of several preclinical product candidates and six product candidates in clinical trials.

Patents and Proprietary Rights

We generally seek United States and foreign patent protection for the genes, proteins, antibodies and small molecule drug leads that we discover, as well as therapeutic, diagnostic and pharmacogenomic products and processes, drug screening methodologies and other inventions based on such genes, proteins, antibodies and small molecules. We also seek patent protection or rely upon trade secret rights to protect certain other technologies which may be used to discover and characterize genes, proteins, antibodies and small molecules and which may be used to develop novel therapeutic, diagnostic and pharmacogenomic products and processes. As of December 31, 1999, we and our subsidiaries owned, or were the exclusive licensee under, 86 U.S. patents expiring on various dates through 2018, and more than 750 pending U.S. patent applications. As of December 31, 1999 we and our subsidiaries owned, or were the exclusive licensee under, 24 foreign patents and more than 250 pending foreign patent applications, most of which are counterparts to U.S. patents or patent applications.

We own two issued U.S. patents and several pending U.S. and foreign patent applications related to the Melastatin™ product. We are an exclusive licensee under two issued U.S. patents and pending U.S. and foreign patent applications related to LDP-01 and we also own pending U.S. and foreign patent applications related to LDP-02. We also own issued U.S. patents, granted foreign patents and pending U.S. and foreign applications related to LDP-977 and an issued U.S. patent and granted foreign patents and pending U.S. and foreign applications related to LDP-341. We also are the exclusive licensee of an issued U.S. patent and pending U.S. and foreign applications and we own pending U.S. and foreign applications related to LDP-519 and related compounds.

We have entered into several license agreements under which we have acquired certain rights to use proprietary technologies and compounds. In particular, as a result of our acquisition of LeukoSite,

we have exclusive and non-exclusive licenses as set forth in an agreement with British Technology Group Limited (now BTG International Ltd.) to make, use and sell products containing the CAMPATH® monoclonal antibody. The agreement requires the payment of royalties to British Technology Group. In addition, British Technology Group may terminate the license agreement under certain circumstances, including in the event of a breach of the agreement or if there is a failure to meet certain commercialization requirements.

In the event our in-licensed rights were terminated or modified, our ability to manufacture and sell products using the covered technologies would be materially adversely affected.

Government Regulation

Overview Of FDA Regulations

Biological and non-biological drugs, including our products under development, are subject to extensive and rigorous regulation by the federal government, principally the FDA, and by state and local governments. Federal and state statutes and regulations govern, among other things, the research, development, testing, manufacture, storage, recordkeeping, reporting, labeling, distribution, promotion and marketing of pharmaceutical and diagnostic device products. If these products are marketed abroad, they also are subject to export requirements and to regulation by foreign governments. Failure to comply with applicable regulatory requirements may subject a company to administrative or judicially imposed sanctions, such as warning letters, product recalls, product seizure, injunctions, civil penalties, criminal prosecution, suspension of production, license revocation, or FDA refusal to approve pending marketing applications.

The applicable regulatory clearance process, which must be completed prior to the commercialization of a product, is lengthy and expensive. FDA requirements for our products under development vary depending upon whether the product is a non-biological drug or biological drug. We believe that our monoclonal antibody products currently in human clinical or late preclinical development (*i.e.*, CAMPATH®, LDP-01 and LDP-02 products) will be regulated by the FDA as biological drugs. Because of the early research and development stages, we are uncertain as to whether products under development in our small molecule antagonist program will be regulated as non-biological drugs or biological drugs.

Regulation of Non-Biological Drugs and Biological Drugs

Non-biological drugs and biological drugs are subject to some of the same laws and regulations. Ultimately, however, they are approved under somewhat different regulatory frameworks. Product development and approval within either regulatory framework takes a number of years, involves the expenditure of substantial resources and is uncertain. Many non-biological drugs and biological drugs that initially appear promising ultimately do not reach the market because they are not found to be safe or effective under the standards applied by FDA, or cannot meet the FDA's other regulatory requirements for product manufacture and sale. In addition, the current regulatory framework may change or additional regulations may arise at any stage of our product development that may affect approval, delay the submission or review of an application or require additional expenditures by us.

The activities required before a new non-biological drug or biological drug can be marketed in the United States begin primarily with preclinical testing. Preclinical tests include laboratory evaluation of product chemistry, toxicology and other characteristics. Animal studies are used to assess the potential safety and efficacy of the product as formulated. Many preclinical studies are regulated by the FDA under the current Good Laboratory Practice, or GLP, regulations. Violations of these regulations can, in some cases, lead to invalidation of the studies, requiring such studies to be replicated if the data are to be submitted to the FDA in support of a marketing application.

The entire body of preclinical development work necessary to administer investigational non-biological drugs and biological drugs to human volunteers or patients is summarized in an investigational new drug application, or IND, submitted to the FDA. FDA regulations provide that human clinical trials may begin 30 days following submission of an IND application, unless the FDA advises otherwise or requests additional information, clarification or additional time to review the application. Once trials have commenced, investigators must promptly report all unanticipated risks and adverse events that occur to human subjects to the Institutional Review Board, or IRB, and the drug sponsor during clinical trials. The sponsor must promptly report an adverse event that is unexpected, serious, and possibly drug-related to FDA. The FDA may stop the trials by placing a "clinical hold" on such trials because of concerns about, for example, the safety of the product being tested. Such holds can cause substantial delay and in some cases may require abandonment of a product.

Clinical testing in humans involves the administration of the investigational non-biological drug or biological drug to healthy volunteers or to patients under the supervision of a qualified principal investigator, usually a physician, pursuant to an FDA reviewed protocol. Each clinical study is conducted under the auspices of an IRB at each academic center, hospital or other research facility at which the study will be conducted. The IRB must approve the protocol and informed consent documents before a clinical trial can proceed. An IRB will consider, among other things, ethical factors, the safety of human subjects, whether informed consent was properly obtained, and the possible liability of the institution.

Human clinical trials typically are conducted in three sequential phases, but the phases may overlap. Phase I clinical trials consist of testing the product in a small number of patients or normal volunteers, primarily for safety, in one or more dosages, as well as characterization of a drug's pharmacokinetic and/or pharmacodynamic profile. In Phase II clinical trials, in addition to safety, the efficacy of the product is evaluated in a patient population. Phase III clinical trials typically involve additional testing for safety and clinical efficacy in an expanded population at multiple geographically dispersed sites. A clinical plan, or "protocol," accompanied by the approval of an IRB, is submitted to the FDA prior to commencement of each clinical trial. The FDA may order the temporary or permanent discontinuation of a clinical trial at any time for a variety of reasons, particularly if safety concerns exist.

Upon completion of clinical trials, a company seeking FDA approval to market a new non-biological drug must file a new drug application, or NDA, with the FDA. In addition to reports of the preclinical and clinical trials conducted under the FDA-approved IND application, the NDA includes information pertaining to the preparation of the drug substance, analytical methods, drug product formulation, detail on the manufacture of finished products and proposed product packaging and labeling. In addition to reports of the preclinical and clinical trials conducted under the FDA-authorized IND application, the marketing application also includes other data and information relating to the product's safety and efficacy. The manufacturing facility must also pass an FDA good manufacturing practices (GMP) inspection before the marketing application can be approved.

A company seeking FDA approval to market a biological drug is required to prepare and submit additional information for inclusion in a single biologics license application, or BLA, which is similar in content to the NDA. To approve a BLA, the FDA must determine that the product is effective and that the manufacturing establishment and product meet applicable requirements to ensure the safety, purity, and potency of the product.

Submission of a standard NDA or BLA does not assure FDA approval for marketing. After the application is submitted, the FDA initially determines whether all pertinent data and information have been submitted before accepting the application for filing. After the application is considered filed, the FDA begins its substantive review. The FDA also typically will request a review and recommendation by an advisory committee consisting of outside experts. The application review process generally takes

one to three years to complete, although reviews of non-biological drugs and biological drugs that meet a medical need for serious or life-threatening diseases may be accelerated or prioritized for a six month review. However, the process may take substantially longer if, among other things, the information is not complete, or the FDA has questions or concerns about the safety or efficacy of a product. Expedited or accelerated approvals may require additional larger clinical studies to be conducted following approval or a post-marketing study of existing databases.

In addition, the FDA may, in some circumstances, impose restrictions on the use of the non-biological drug or biological product that may be difficult and expensive to administer. Product approval may be withdrawn if compliance with regulatory requirements is not maintained or if adverse events are reported after the product reaches the market. The FDA requires reporting of certain safety and other information that becomes known to a manufacturer of an approved non-biological drug or biological product. These reports may be voluntarily provided to the FDA by physicians and other healthcare professionals. Manufacturing and sale may also be disrupted, or delayed, in the event of failure to comply with all required current Good Manufacturing Practices, or cGMP, as determined by FDA investigators in periodic inspections of manufacturing facilities. In addition, changes in the product or the manufacturing facility may require the submission of a supplemental NDA or BLA.

Upon approval, a prescription non-biological drug or biological product may only be marketed for the approved indications in the approved dosage forms and at the approved dosage. In addition, the nature of marketing claims that we will be permitted to make in the labeling and advertising of our products will be limited to those specified in an FDA clearance or approval. Claims exceeding those that are cleared or approved will constitute violation of the Food, Drug and Cosmetic Act.

Orphan Drug Act

Under the Orphan Drug Act, a sponsor of a marketing application may seek to obtain a seven-year period of marketing exclusivity for a non-biological or biological drug intended to treat a rare disease or condition, which is defined as a disease or condition that occurs in fewer than 200,000 patients. Orphan drugs provide significant tax advantages to a sponsor. Before a product can receive marketing exclusivity associated with orphan product status, it must receive orphan product designation. If a product is designated as an orphan drug or biologic by the FDA and it is the first FDA approved application of the specified indication, the sponsor receives seven years of marketing exclusivity, subject to certain limitations.

We have obtained orphan product designation for CAMPATH® monoclonal antibody for the treatment of patients with chronic lymphocytic leukemia. We may seek such designation for other products as well. However, other companies may also receive orphan designation and obtain the FDA marketing approval before we obtain such approval. If another company obtains marketing approval first and receives seven-year marketing exclusivity, we would not be permitted by the FDA to market our product in the United States for the same use during the exclusivity period. In addition, we could incur substantial costs in asserting any rights to prevent such uses we may have under the Orphan Drug Act. If we receive seven-year marketing exclusivity, FDA may rescind the period of exclusivity under certain circumstances, including our failure to assure a sufficient quantity of the drug.

The Orphan Drug Act is subject to amendment by Congress, which has periodically considered amendments that would change the substantive provisions of the law, including the market exclusivity provisions. There can be no assurance that the market exclusivity provisions under this Act will still be the same when the CAMPATH® product or other products are approved.

Foreign Regulations

We will also be subject to a variety of foreign regulations governing clinical trials and sales of our products. Whether or not FDA approval has been obtained, approval of a product by the comparable

regulatory authorities of foreign countries must be obtained prior to the commencement of marketing of the product in those countries. The approval process varies from country to country and the time may be longer or shorter than that required for FDA approval.

Other Regulations

In addition to regulations enforced by the FDA, we also are 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 present and potential future federal, state or local regulations. Millennium's research and development involves the controlled use of hazardous materials, chemicals and various radioactive compounds. Although we believe that our safety procedures for storing, handling, using and disposing of such materials comply with the standards prescribed by applicable regulations, the risk of accidental contaminations or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result and any such liability could have a material adverse effect.

Regulation of Diagnostics

The FDA regulates the development, manufacture, and marketing of medical devices including diagnostic products and reagents. The FDA has regulations that set varying requirements for medical devices according to potential risk class. Class I devices represent the lowest potential risk devices and are therefore subject only to the general controls that include establishment registration, product listing, the prohibition of mislabeling or adulteration, and a requirement to comply with federal Good Manufacturing Practices regulations. Premarket notification is required for some Class I clinical diagnostic devices. Class II devices present greater risk than Class I devices and are subject to special controls, such as guidelines or performance standards, as well as the same general controls that are applicable to Class I devices. Class II devices require premarket clearance to demonstrate that the FDA accepts the manufacturer's claims that the device is substantially equivalent to other legally marketed devices, and meets generally accepted performance criteria that may be required to demonstrate that the device is safe and effective. Class III devices present a higher level of risk and are additionally subject to rigorous demonstration of safety and effectiveness through the premarket approval process.

For some Class I and most Class II devices, a premarket notification must be submitted to the FDA. Usually within 90 days of the receipt of this notification, the FDA makes the determination whether the device submitted is substantially equivalent to a legally marketed device. A legally marketed device is one which was marketed prior to the passage of the Medical Device Amendments of 1976, or a post 1976 device that has been determined by the FDA to be substantially equivalent to the previously cleared devices. A determination of substantial equivalence requires several FDA findings: First, that the device has the same intended use as the legally marketed device; and second, either that the device has the same technological characteristics as the legally marketed device, or, if it does not, that the device is as safe and effective as the legally marketed device and does not present different questions about safety and effectiveness. Class III devices require extensive clinical testing to prove safety and effectiveness, and submission of the resulting data to the FDA as a premarket approval application (PMA). The FDA ordinarily will refer a new device premarket approval application to an advisory panel of outside experts for a recommendation on whether to approve the application or to request additional testing.

Where a premarket approval application is required, FDA regulations require the demonstration of safety and effectiveness, typically based upon extensive clinical trials. Fulfilling the requirements of the premarket approval application are costly and both the preparation and review are time consuming, commonly taking from one to several years. Before granting premarket approval, the FDA must inspect and find acceptable the proposed manufacturing procedures and facilities. The premarket approval regulations also require FDA approval of most changes made after the tests have been approved.

Analyte specific reagents (ASRs) that are used by clinical laboratories to conduct in-house assays or "home brew" tests are regulated by FDA under this device classification scheme, and their sale, distribution, and use are restricted under FDA regulations. The majority of ASRs are Class I and exempt from premarket notification requirements, although they remain subject to other FDA requirements such as good manufacturing practices, labeling, and reporting. Some ASRs are Class II (e.g., for blood bank tests) or Class III (e.g., for HIV and tuberculosis tests) and are subject to FDA premarket review. ASRs for genetic testing or predictive genetic testing currently are Class I and exempt from premarket review, although FDA has announced that the agency may propose additional regulation of genetic tests if determined appropriate following its ongoing evaluation of pertinent reports and recommendations.

Manufacturing Regulation

The manufacture of diagnostic products and reagents must be in accordance with quality system regulations and current federal Good Manufacturing Practices regulations. Diagnostic products and reagents are also subject to various postmarketing requirements, such as complaint handling and reporting of adverse events. Premarket approval products are also subject to annual reports. The FDA typically inspects manufacturing facilities every two years.

Clinical Laboratory Improvement Amendments of 1988

All medical testing in the United States is regulated by the Health Care Financing Administration according to the complexity of the testing as specified under the Clinical Laboratory Improvement Amendments of 1988. CLIA regulations establish three categories of laboratory tests, for which regulatory requirements become increasingly stringent as the complexity of the test rises: (1) tests that require little or no operator skill, which allows for a certificate waiver of the regulations; (2) tests of moderate complexity; and (3) high complexity tests which require significant operator skill or training. Complexity categorization of diagnostic tests has been the responsibility of the Centers for Disease Control and Prevention although that responsibility has recently been transferred to the FDA. CLIA regulatory requirements apply to facilities such as clinical laboratories, hospitals, and physician offices which perform laboratory tests. All laboratories are subject to periodic inspection. In addition, all laboratories performing tests of moderate or high complexity must register with HCFA or an organization to whom HCFA has delegated such authority. They also must meet requirements relating to personnel qualifications, proficiency testing, quality assurance, and quality control. We expect all genetic tests to be categorized as having moderate to high complexity. "Home brew" tests using analyte specific reagents must be conducted in a clinical laboratory meeting the requirements for high-complexity tests. In practical terms, performing a test of high complexity means that the individual supervising the test, i.e., the physician, pathologist or laboratory director, must be appropriately educated and trained, and the laboratory must be certified for high complexity testing under CLIA.

State Regulation

In additional to federal regulation, certain diagnostic tests will be subject to a variety of state laws and regulations in those states where our products may be marketed, sold or used. States also impose requirements on clinical laboratories and regulate the ordering of laboratory tests, reporting of test results and confidentiality of medical records.

Manufacturing

We have limited manufacturing capabilities and ourselves produce only certain compounds for research and development and preclinical testing. We rely on third parties to manufacture most of our compounds for research and development, and preclinical and clinical trials. We generally expect to rely on our strategic partners or other third parties to maintain cGMP and to manufacture the products for which we obtain regulatory approval to market and sell. Our partnership with ILEX Oncology has

entered into a supply agreement with Boehringer Ingleheim for the production of CAMPATH® monoclonal antibody. Under most of our collaboration agreements, our alliance partners have the exclusive right to manufacture products that result from their programs.

Sales and Marketing

We do not currently have any sales and marketing capabilities. We generally expect to rely on our strategic partners or on other third parties to market any products that we may develop. Our partnership for the CAMPATH® product has entered into a distribution agreement with Schering AG and its affiliate, Berlex Laboratories, to distribute the CAMPATH® product on a worldwide basis (other than the Far East). At some time in the future, we may co-promote or ourselves market one or more of our products. If we decide to market products ourselves, we will be required to incur significant additional expenditures and commit significant additional management resources to develop an external sales force and implement our sales and marketing strategy.

Competition

We face intense competition from a wide range of pharmaceutical, biotechnology and diagnostic companies, as well as academic and research institutions and government agencies. Our competitors include organizations that are pursuing the same or similar technologies as those which constitute our technology platform and from organizations that are pursuing pharmaceutical or diagnostic products that are competitive with our potential products. Many of our competitors compete against us for strategic alliance partners for their research and development and commercialization programs. Many of the organizations competing against us have greater capital resources, research and development staffs and facilities, experience in drug discovery and development and in obtaining regulatory approval and pharmaceutical product manufacturing and marketing capabilities than we have.

Principal competitive factors in our industry include:

- the quality and breadth of an organization's technology;
- the skill of an organization's employees and its ability to recruit and retain skilled employees;
- an organization's intellectual property estate; and
- the range of capabilities from target identification and validation to drug discovery and development to manufacturing and marketing.

We believe that the quality and breadth of our technology platform, the skill of our employees and our ability to recruit and retain skilled employees, our aggressive program of seeking patent protection for gene discoveries and our capabilities for early stage research and drug discovery are competitive strengths. Many large pharmaceutical and biotechnology companies have significantly larger intellectual property estates than we do and greater capabilities than we do in preclinical and clinical development, sales, marketing manufacturing and regulatory affairs.

Employees

As of December 31, 1999, we had approximately 952 full-time employees, of whom approximately 284 hold Ph.D. or M.D. degrees and approximately 219 hold other advanced degrees. Approximately 763 of our employees are engaged in research and development activities and approximately 189 are engaged in business development, finance, operations support and administration. None of our employees is represented by a collective bargaining agreement, nor have we experienced work stoppages. We believe that relations with our employees are good.

RISK FACTORS THAT MAY AFFECT RESULTS

This Annual Report on Form 10-K, together with the accompanying letter to shareholders, contains forward-looking statements. For this purpose, any statements contained herein that are not statements of historical fact may be considered to be forward-looking statements. Although not a complete list of words that might identify forward-looking statements, we use the words "believes," "anticipates," "plans," "expects," "intends" and similar expressions to identify forward-looking statements. There are a number of important factors that could cause Millennium's actual results to differ materially from those indicated by forward-looking statements. Factors that could cause or contribute to such differences include those discussed below, as well as those discussd elsewhere in this Form 10-K.

REGULATORY RISKS

Clinical trials of our product candidates may not be successful

In order to obtain regulatory approvals for the commercial sale of any products, we or our alliance partners will be required to demonstrate through preclinical testing and clinical trials that the product is safe and efficacious. Prior to our merger with LeukoSite in December 1999, neither we nor any of our alliance partners had initiated human clinical trials with respect to any product or service based upon our discoveries or filed an investigational new drug application with the United States Food and Drug Administration, or FDA, to do so.

The results from preclinical testing of a product that is under development may not be predictive of results that will be obtained in human clinical trials. In addition, the results of early human clinical trials may not be predictive of results that will be obtained in larger scale, advanced stage clinical trials. Furthermore, we, our collaborators or the FDA may suspend clinical trials at any time if the subjects or patients participating in such trials are being exposed to unacceptable health risks or for other reasons.

The rate of completion of any clinical trials that we conduct will be dependent on the rate of patient enrollment. Patient enrollment is a function of many factors, including the size of the patient population, the nature of the protocol, the availability of alternative treatments, the proximity of patients to clinical sites and the eligibility criteria for the study. Delays in planned patient enrollment may cause us to incur increased costs and program delays.

Reliance on third parties to conduct trials

To date, all of our clinical trials have been conducted by third parties under contract to us. Although we acquired certain clinical trial capabilities in our merger with LeukoSite, for the foreseeable future we expect to rely primarily on our strategic alliance partners and other third parties to conduct clinical trials of our products in most circumstances. We will have less control over such clinical trials than if we were conducting the trials directly. As a result, these trials may not begin or be completed as planned.

We may not obtain regulatory approvals; the approval process is costly and lengthy

We must obtain regulatory approvals for our ongoing development activities and before marketing or selling any product or service. We may not receive regulatory approvals to conduct clinical trials of our products or to manufacture or market our products and services. In particular, we may not receive regulatory approval from the FDA or any other regulatory authority to market CAMPATH® monoclonal antibody, our most advanced product candidate. In addition, regulatory agencies may not grant such approvals on a timely basis or may revoke previously granted approvals.

The process of obtaining FDA and other required regulatory approvals, including approvals in other countries, is lengthy and expensive. The time required for FDA and other clearances or approvals

is uncertain and typically takes a number of years, depending on the complexity and novelty of the product. Any delay in obtaining or failure to obtain required clearance or approvals could materially adversely affect our ability to generate revenues from the affected product or service. We have only limited experience in filing and prosecuting applications necessary to gain regulatory approvals.

Certain of the products that are likely to result from our research and development programs may be based on new technologies and new therapeutic approaches that have not been extensively tested in humans. One example of such a technology is gene therapy. The regulatory requirements governing these types of products may be more rigorous than for conventional products. As a result, we may experience a longer regulatory process in connection with any products that we develop based on these new technologies or new therapeutic approaches.

Our analysis of data obtained from preclinical and clinical activities is subject to confirmation and interpretation by regulatory authorities, which could delay, limit or prevent regulatory approval. Any regulatory approval to market a product may be subject to limitations on the indicated uses for which we may market the product. These limitations may limit the size of the market for the product.

We also are subject to numerous and varying foreign regulatory requirements governing the design and conduct of clinical trials and the manufacturing and marketing of our future products and services. The approval procedure varies among countries. The time required to obtain foreign approvals often differs from that required to obtain FDA approval. Approval by the FDA does not ensure approval by regulatory authorities in other countries.

All of these regulatory risks also are applicable to development, manufacturing and marketing undertaken by our alliance partners or other collaborators.

Even if we obtain marketing approval, our products will be subject to ongoing regulatory review

The manufacturer of products for which we obtain marketing approval and the manufacturing facilities used to make such products will be subject to continual review and periodic inspections by the FDA. The subsequent discovery of previously unknown problems with the product, manufacturer or facility may result in restrictions on the product or manufacturer, including withdrawal of the product from the market.

If we fail to comply with applicable regulatory requirements, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecutions.

RISKS RELATING TO OUR INDUSTRY, BUSINESS AND STRATEGY

The genomics industry is new; we have not commercialized any products

The genomics industry is new and evolving rapidly. To date, we have not commercialized any products. In addition, relatively few products based on gene discoveries have been developed and commercialized by others. Rapid technological development by us or others may result in compounds, products or processes becoming obsolete before we recover our development expenses.

We have completed development of only one product, CAMPATH® monoclonal antibody, and have only recently applied to the FDA for approval to market this product. All of the other products that we are developing will require additional research and development, extensive preclinical studies and clinical trials and regulatory approval prior to any commercial sales. We may need to successfully address a number of technological challenges in order to complete development of any of our products. Moreover, these products may not be effective in treating any disease or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may prevent or limit commercial use.

We plan to expand rapidly; if we cannot manage our growth successfully, our growth may slow or stop

We have rapidly expanded our operations and expect to continue to expand. Our growth has placed, and will continue to place, a significant strain on our management, operating and financial systems. If we cannot manage our expanding operations, we may not be able to continue to grow or we may grow at a slower pace. Furthermore, our operating costs may escalate faster than planned. In order to manage our growth successfully, we must:

- Maintain close coordination among our executive, finance, operations, research and development organizations;
- Improve our operating, financial and accounting systems, procedures and controls;
- Expand, train and manage our employee base effectively; and
- Acquire and lease significant additional equipment and facilities.

The acquisitions we make may not be scientifically or commercially successful

We completed our merger with LeukoSite on December 22, 1999. We may not be able to successfully integrate or profitably manage LeukoSite's businesses. In addition, the combination of our businesses with LeukoSite's may not achieve revenues, net income or loss levels, efficiencies or synergies that justify the merger. The combined company may experience slower rates of growth as compared to the historical rates of growth of Millennium and LeukoSite independently.

All acquisitions, including our merger with LeukoSite, involve a number of operational risks, including:

- Difficulty and expense of assimilating the operations, technology and personnel of the acquired business;
- Inability to retain the management, key personnel and other employees of the acquired business;
- Inability to maintain the acquired company's relationships with key third parties, such as alliance partners;
- Exposure to legal claims for activities of the acquired business prior to acquisition;
- Diversion of management attention; and
- Amortization of substantial goodwill and write-off of in-process research and development costs, adversely affecting our reported results of operations.

If we make additional significant acquisitions in which the consideration paid includes stock or other securities, our outstanding common stock may be significantly diluted. If we make one or more significant acquisitions in which the consideration paid includes cash, we may be required to use a substantial portion of our available cash.

Our growth could be limited if we are unable to attract and retain key personnel

Our success is substantially dependent on the ability, experience and performance of our senior management and other key personnel. If we lose one or more of the members of our senior management or other key employees, our business and operating results could be seriously harmed.

In addition, our future success will depend heavily on our ability to continue to hire, train, retain and motivate additional skilled managerial and scientific personnel. The pool of personnel with the skills that we require is limited. Competition to hire from this limited pool is intense.

The stock options held by LeukoSite employees became fully vested upon the closing of our acquisition of LeukoSite. This acceleration may adversely affect our ability to retain former LeukoSite employees.

We face substantial competition, which may result in others discovering, developing or commercializing products and services before or more successfully than we do

The fields of genomics, biotechnology and pharmaceuticals are highly competitive. We will not succeed if we cannot compete effectively in these fields. Many of our competitors are substantially larger than we are and have substantially greater capital resources, research and development staffs and facilities than we have. Furthermore, many of our competitors are more experienced than we are in drug discovery, development and commercialization, obtaining regulatory approvals and product manufacturing and marketing. As a result, our competitors may identify genes associated with diseases or discover, develop and commercialize products or services based on such genes before we do. In addition, our competitors may discover, develop and commercialize products or services which render non-competitive or obsolete the products or services that we or our strategic alliance partners are seeking to develop and commercialize.

Under the Orphan Drug Act, a sponsor of an application to the FDA may seek to obtain a seven-year period of marketing exclusivity for a drug intended to treat a rare disease or condition, which is defined as a disease or condition that occurs in fewer than 200,000 patients. In the event that a competitor receives orphan drug designation and obtains the FDA marketing exclusivity for a drug intended to treat the same rare disease or condition before we obtain such approval, we would not be permitted by the FDA to market our product in the United States for the same use during the exclusivity period. If we receive an orphan drug designation, it may be very expensive to assert our rights under the Orphan Drug Act. In addition, if we receive seven-year marketing exclusivity, the FDA may rescind the period of exclusivity under certain circumstances, including our failure to assure a sufficient quantity of the drug.

RISKS RELATING TO OUR FINANCIAL RESULTS AND NEED FOR FINANCING

We have incurred substantial losses, we expect to continue to incur losses and we will not be successful unless we reverse this trend

We have incurred losses in four of the last six years including losses in the year ended December 31, 1999. We expect to continue to incur substantial operating losses in future periods.

To date, substantially all of our revenues have resulted from payments from strategic alliance partners. We have not received any revenues from the sale of products.

We expect to increase our spending significantly as we continue to expand our infrastructure, research and development programs and commercialization activities. As a result, we will need to generate significant revenues to achieve profitability. We cannot be certain whether or when this will occur because of the significant uncertainties that affect our business.

We may need additional financing, which may be difficult to obtain

We will require substantial funds to conduct research and development, including preclinical testing and clinical trials of our potential products, meet our obligations to our strategic alliance partners and manufacture and market any products and services that are approved for commercial sale. Our future capital requirements will depend on many factors, including the following:

- Our ability to establish and maintain strategic alliances
- Continued progress in our discovery and development programs

- The number and scope of our discovery and development programs
- The progress of the development efforts of our strategic partners
- The scope and results of clinical trials initiated by us
- The time and costs involved in obtaining regulatory approvals
- The cost of acquisitions of businesses, products and technologies
- The cost of manufacturing and commercialization activities
- The cost of continuing to build our infrastructure, including additional requirements for facilities and costs of recruiting personnel
- The timing, receipt, and amount of milestones and other payments from our alliance partners
- The timing, receipt and amount of sales and royalties from our potential products and services in the market
- The costs involved in preparing, filing, prosecuting, maintaining and enforcing patent claims and other patent-related costs, including litigation costs and the costs of obtaining any required licenses to technologies
- Competing technological and market developments

We may seek to raise additional financing through public or private equity offerings, debt financings or additional strategic alliance and licensing arrangements. Such additional financing may not be available when we need it or may not be available on terms that are favorable to us.

If we raise additional funds by issuing equity securities, further dilution to our then existing stockholders will result. In addition, the terms of the financing may adversely affect the holdings or the rights of such stockholders. If we are unable to obtain adequate funding on a timely basis, we may be required to significantly curtail one or more of our discovery or development programs. We could be required to seek funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain of our technologies, product candidates or products which we would otherwise pursue on our own.

RISKS RELATING TO DEVELOPMENT OF GENOMICS AND GENETICS BASED TECHNOLOGY AND PRODUCTS

If our technological approaches are not successful, we may not be able to develop and commercialize any products and services

Our genomics research is focused primarily on diseases that may be linked to several or many genes working in combination. Both we and the general scientific and medical communities have a limited understanding relating to the role of genes and their products in these diseases. Our technological approaches to drug target identification and validation may not enable us to successfully identify and characterize genes and their products that predispose individuals to diseases. If we do not identify such drug targets, we may not be able to successfully develop and commercialize any products or services. Even if we do identify such drug targets, we will have to do substantial additional work to translate these discoveries into products.

We may not be able to obtain biological material, including human and animal DNA samples required for our genetic studies

Our gene identification strategy includes genetic studies of families and populations prone to particular diseases. These studies require the collection of large numbers of DNA samples from

affected individuals, their families and other suitable populations as well as animal models. The availability of DNA samples and other biological material is important to our ability to discover the genes responsible for human diseases through human genetic approaches and other studies. Competition for these resources is intense; and access to suitable populations, materials and samples could be limited by forces beyond our control, including governmental actions. Some of our competitors may have obtained access to significantly more family and population resources and biological materials than we have obtained. As a result, we may not be able to obtain access to DNA samples necessary to support our human gene discovery programs.

RISKS RELATING TO STRATEGIC ALLIANCE PARTNERS

We depend on strategic alliance partners; our business may suffer if any of our strategic alliance partners breaches their agreement or fails to support or terminates their alliance with us

We conduct most of our discovery and development activities through strategic alliances. The success of these programs is heavily dependent on the efforts and activities of our strategic alliance partners. Our agreements with our alliance partners allow them significant discretion in determining the efforts and resources that they will apply to the alliance. Our existing and any future alliances may not be scientifically or commercially successful.

The risks that we face in connection with these alliances include:

- If any of our alliance partners were to breach or terminate an agreement with us, reduce its funding or otherwise fail to conduct its collaborative activities successfully, we could be required to devote additional internal resources to the program that is the subject of the alliance, scale back or terminate the program, seek an alternative partner or license or otherwise secure intellectual property rights previously associated with the alliance in order to continue the program.
- All of our strategic alliance agreements are subject to termination under various circumstances, including in many cases on short notice without cause. Some of our alliance agreements provide that if we fail to meet specified performance criteria, our alliance partner may terminate the agreement while maintaining rights and licenses to certain of our discoveries. If an alliance partner terminates its alliance with us, it may adversely affect the perception of us in the business and financial communities.
- In our strategic alliance agreements, we generally agree not to conduct certain research and development in the field that is the subject of the alliance. These agreements may have the effect of limiting the areas of research and development we may pursue, either alone or in collaboration with third parties.
- Our alliance partners may develop and commercialize, either alone or with others, products and services that are similar to or competitive with the products and services that are the subject of the alliance with us. Such competing products and services may result in our alliance partner withdrawing financial and related support for our product and service candidates.
- Reductions in marketing or sales efforts or a discontinuation of marketing or sales efforts of our products or services by our alliance partners would reduce our revenues, which in many cases will be based on a percentage of net sales by our alliance partner. Our alliance partners may change the focus of their development and commercialization efforts. Pharmaceutical and biotechnology companies historically have re-evaluated their priorities following mergers and consolidations, which have been common in recent years in these industries.
- We will rely on our alliance partners to manufacture most products covered by our alliances. For example, Becton Dickinson has the sole right to manufacture Melastatin™.

We may not be successful in establishing additional strategic alliances

An important element of our business strategy is entering into strategic alliances for the development and commercialization of products and services based on our discoveries. We face significant competition in seeking appropriate alliance partners. We may not be successful in our efforts to establish additional strategic alliances or other alternative arrangements. The terms of any additional strategic alliances or other arrangements that we establish may not be favorable to us. Moreover, such strategic alliances or other arrangements may not be successful.

Conflicts may arise between us and our majority-owned subsidiary

We have a subsidiary, Millennium Predictive Medicine, Inc., or MPMx, in which minority equity interests are held by third parties. In addition, we may establish additional subsidiaries in the future in which the subsidiary sells minority equity interests to third parties. Conflicts may arise between us and such subsidiaries, including with respect to:

- the allocation of business opportunities;
- the sharing of rights, technologies, facilities, personnel and other resources; and
- the fiduciary duties owed by officers and directors who provide services to both us and one or more of these subsidiaries.

RISKS RELATING TO INTELLECTUAL PROPERTY

We may not be able to obtain patent protection for our discoveries, the patent protection we have or may obtain may be inadequate and we may infringe patent rights of third parties

The patent positions of pharmaceutical and biotechnology companies, including us, are generally uncertain and involve complex legal, scientific and factual questions.

Our success depends in significant part on our ability to:

- Obtain patents;
- Obtain licenses to the proprietary rights of others on commercially reasonable terms;
- Operate without infringing upon the proprietary rights of others;
- Prevent others from infringing on our proprietary rights; and
- Protect trade secrets.

There is significant uncertainty about the validity and permissible scope of genomics patents

The validity and permissible scope of patent claims in the pharmaceutical and biotechnology fields, including the genomics field, involve important unresolved legal principles. For example, there is significant uncertainty both in the United States and abroad regarding the patentability of gene sequences in the absence of functional data and the scope of patent protection available for full-length genes and partial gene sequences. Moreover, certain groups have made certain gene sequences available in publicly accessible databases. These and other disclosures may adversely affect our ability to obtain patent protection for gene sequences claimed by us in patent applications that we file subsequent to such disclosures. There is also some uncertainty as to whether human clinical data will be required for issuance of patents for human therapeutics. If such data are required, our ability to obtain patent protection could be delayed or otherwise adversely affected.

Our collaborators may publish data that will limit our ability to obtain patent protection

Our collaborators have certain rights to publish data and information in which we have rights. While we believe that the limitations on publication of data developed by our collaborators pursuant to our collaboration agreements will be sufficient to permit us to apply for patent protection, there is considerable pressure to publish discoveries. Such publication could affect our ability to obtain patent protection for some inventions in which we may have an interest.

The protection that our patents and patent applications afford us may be limited

United States and foreign patents may not issue from any patent applications that we own or license. If patents do issue, the claims granted may not be sufficiently broad to protect our technology. Any rights we may have under any issued patents that we own or have licensed may not provide us with sufficient protection against competitive products or otherwise cover commercially valuable products or processes. In addition, issued patents that we own or license may be challenged, infringed upon, invalidated, found to be unenforceable or circumvented by others. Our patents also may not afford us protection against competitors with similar technology. Because patent applications in the United States may be maintained in secrecy until patents issue, third parties may have issued patents or have filed or maintained patent applications for technology used by us or covered by our pending patent applications without our being aware of these patents or patent applications. We cannot be certain that the applicants or inventors of subject matter covered by patent applications or patents that we own or have licensed were the first to invent or the first to file patent applications for such inventions.

Disputes regarding patent rights may be costly to resolve and we could lose our rights

If another party claims the same subject matter or subject matter overlapping with subject matter that we have claimed in a United States patent application or patent, we may decide or be required to participate in interference proceedings in the United States Patent and Trademark Office in order to determine priority of invention. Loss of such an interference proceeding would deprive us of patent protection sought or previously obtained. Participation in such proceedings could result in substantial costs, whether or not the eventual outcome is favorable. Similarly, patents or applications that we have licensed could become the subject of interference proceedings in the United States Patent and Trademark Office, and loss of such an interference proceeding would deprive us of licensed rights under patent protection sought or previously obtained.

Others may own or control patents or patent applications and require us to seek licenses or block our commercialization efforts

We may not have rights under certain patents or applications related to our proposed products, processes or services. These patents and patent applications in the United States and abroad may be owned or controlled by third parties. Therefore, in some cases, such as those detailed below, to develop, manufacture, sell or import certain of our proposed products, processes or services, we or our alliance partners may choose to seek or be required to seek licenses under third party patents issued in the United States and abroad or those which might issue from United States and foreign patent applications. If licenses are not available to us on acceptable terms, we or our alliance partners may not be able to develop, manufacture, sell or import these products, processes or services.

With respect to our product candidate LDP-01, we are aware of third party patents and patent applications which relate to certain anti-CD18 antibodies and their use in various methods of treatment including methods of reperfusion therapy and methods of treating focal ischemic stroke. In addition, our LDP-01, LDP-02, and CAMPATH® product candidates are humanized monoclonal antibodies. We are aware of third party patents and patent applications which relate to certain humanized or modified

antibodies, products useful for making humanized or modified antibodies, and processes for making and using humanized or modified antibodies. We are also aware of third party patents and patent applications relating to certain manufacturing processes, products thereof and materials useful in such processes.

Our product candidates LDP-977, LDP-341, and LDP-519 are all small molecule drug candidates. With respect to LDP-341, we are aware of third party patents or patent applications which relate to either intermediates or synthetic processes used in the synthesis of these compounds. Additionally, for the use of LDP-341 and LDP-519 in the treatment of infarctions we are aware of the existence of a potentially interfering patent application filed by one of our former consultants.

Our right to use certain technologies is dependent on licenses which could be terminated or lost

We are a party to various license agreements that give us rights under certain intellectual property rights of third parties. We cannot assure you that we will be able to continue to license these rights on commercially reasonable terms, if at all. These licenses impose various commercialization, sublicensing, royalty, insurance and other obligations on us. Our failure to maintain rights under any license could have a material adverse effect on our business, financial condition and results of operations.

We may not be able to keep our trade secrets confidential

We also rely significantly upon unpatented proprietary technology, information, processes and know-how, including proprietary software and databases of proprietary gene sequences and biological information. We seek to protect this information by confidentiality agreements with our respective employees, consultants and other third party contractors as well as through other security measures. These confidentiality agreements may be breached, and we may not have adequate remedies for any such breach. In addition, our trade secrets may otherwise become known or be independently developed by competitors.

We may become involved in expensive patent litigation or other proceedings which could result in liability for damages or stop our development and commercialization efforts

There has been substantial litigation and other proceedings regarding the patent and other intellectual property rights in the pharmaceutical and biotechnology industries. We may become a party to patent litigation or other proceedings regarding intellectual property rights. For example, we believe that we hold patent applications that cover genes that are also claimed in patent applications filed by others. Interference proceedings before the United States Patent and Trademark Office may be necessary to establish which party was the first to invent these genes.

Other types of situations in which we may become involved in patent litigation or other proceedings include:

- We may initiate litigation or other proceedings against third parties to enforce our patent rights or licensed patent rights.
- We may initiate litigation or other proceedings against third parties to seek to invalidate the patents they hold or to obtain a judgment that our products, processes or services do not infringe their patents.
- If third parties file patent applications that claim inventions also claimed by us, we may participate in interference or opposition proceedings to determine the priority of invention or entitlement to a patent.

- If third parties initiate litigation or other proceedings claiming that our processes, products or services infringe their patent or other intellectual property rights, we will need to defend ourselves against such claims.

There can be no assurance that any of the patents that we own or have licensed will ultimately be held valid and enforceable or that efforts to assert or defend any patents or other intellectual property rights would be successful. Similarly, there can be no assurances that products or processes used by us or our alliance partners will not be held to infringe patents or other intellectual property rights of others.

The cost to us of any patent litigation or other proceeding, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the cost of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. If a patent litigation or other proceeding is resolved against us, we or our alliance partners may be enjoined from developing, manufacturing, selling or importing our products, processes or services without a license from the other party and we may be held liable for significant damages. We may not be able to obtain any required license on commercially acceptable terms or at all.

Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

RISKS RELATING TO PRODUCT MANUFACTURING, MARKETING AND SALES

The market may not be receptive to our products and services upon their introduction

The commercial success of our products and services that are approved for marketing will depend upon their acceptance by the medical community and third party payors as clinically useful, cost effective and safe. Many of the products and services that we are developing are based upon new technologies or therapeutic approaches. As a result, it may be more difficult for us to achieve market acceptance of our products and services, particularly the first products and services that we introduce to the market based on new technologies and therapeutic approaches.

Other factors that we believe will materially affect market acceptance of our products and services include:

- The timing of receipt of marketing approvals and the countries in which such approvals are obtained
- The safety, efficacy and ease of administration of the product
- The success of physician education programs

We have no sales, marketing or distribution experience and capabilities

We have no sales, marketing or distribution experience and capabilities. We plan to rely significantly on sales, marketing and distribution arrangements with our strategic alliance partners and other third parties for the products and services that we are developing. For example, our partnership that holds CAMPATH® monoclonal antibody will rely solely upon Schering AG and its U.S. affiliate, Berlex Laboratories, for the marketing, distribution and sale of the CAMPATH® product throughout the world other than the Far East. The terms of the arrangements that we enter into relating to marketing and sales of our products may not be favorable to us. In addition, we may have limited or no control over the sales, marketing and distribution activities of third parties. Our future revenues will be materially dependent upon the success of the efforts of these third parties with whom we enter into these arrangements.

If in the future we determine to perform sales, marketing and distribution functions ourselves, we would face a number of additional risks, including:

- We may not be able to attract and build a sufficient marketing staff or sales force.
- The cost of establishing a marketing staff or sales force may not be justifiable in light of any product or service revenues.
- Our direct sales and marketing efforts may not be successful.

We have limited manufacturing capabilities and will be dependent on third party manufacturers

We have limited manufacturing experience and no commercial scale manufacturing capabilities. In order to continue to develop products and services, apply for regulatory approvals and, ultimately, commercialize any products and services, we will need to develop, contract for or otherwise arrange for the necessary manufacturing capabilities.

We currently rely upon third parties to produce material for preclinical testing purposes and expect to continue to do so in the future. We also expect to rely upon other third parties, including our strategic alliance partners, to produce materials required for clinical trials and for the commercial production of certain of our products if we succeed in obtaining necessary regulatory approvals. Our partnership with ILEX Oncology relies on Boehringer Ingleheim as the sole source manufacturer of CAMPATH® monoclonal antibody. There are a limited number of manufacturers that operate under the FDA's good manufacturing practices regulations capable of manufacturing for us. If we are unable to arrange for third party manufacturing of our products, or to do so on commercially reasonable terms, we may not be able to complete development of our products or market them.

To the extent that we enter into manufacturing arrangements with third parties, we will be dependent upon these third parties to perform their obligations in a timely manner. If such third party suppliers fail to perform their obligations, we may be adversely affected in a number of ways, including:

- We may not be able to initiate or continue clinical trials of products that are under development.
- We may be delayed in submitting applications for regulatory approvals for our products.
- We may not be able to meet commercial demands for our products.

We may in the future determine to manufacture certain of our products in our own manufacturing facilities. We will require substantial additional funds and need to recruit qualified personnel in order to build or lease and operate any manufacturing facilities. We may not be able to successfully develop our own manufacturing capabilities. Moreover, it may be very costly and time consuming for us to develop such capabilities.

The manufacture of products by us and our alliance partners and suppliers is subject to regulation by the FDA and comparable agencies in foreign countries. Delay in complying or failure to comply with such manufacturing requirements could materially adversely affect the marketing of our products.

If we fail to obtain an adequate level of reimbursement for our future products or services by third party payors, there may be no commercially viable markets for our products or services

The availability and levels of reimbursement by governmental and other third party payors affects the market for any pharmaceutical product or service. These third party payors continually attempt to contain or reduce the costs of healthcare by challenging the prices charged for medical products and services. In certain foreign countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. We may not be able to sell our products profitably if reimbursement is unavailable or limited in scope or amount.

In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory proposals to change the healthcare system. Further proposals are likely. The potential for adoption of these proposals affects or will affect our ability to raise capital, obtain additional collaborative partners and market our products.

If we or our alliance partners obtain marketing approvals for our products, we expect to experience pricing pressure due to the trend toward managed health care, the increasing influence of health maintenance organizations and additional legislative proposals.

Ethical, legal and social issues related to genetic testing may cause our diagnostic products to be rejected by customers or prohibited or curtailed by governmental authorities

Diagnostic tests that evaluate genetic predisposition to disease raise issues regarding the use and confidentiality of the information provided by such tests. Insurance carriers and employers might discriminate on the basis of such information, resulting in a significant barrier to the acceptance of such tests by customers. Such discrimination could cause governmental authorities to prohibit or limit the use of such tests.

RISKS RELATING TO OUR ONGOING OPERATIONS

We may be exposed to product liability claims and may not be able to obtain adequate product liability insurance

Our business exposes us to potential product liability risks which are inherent in the testing, manufacturing, marketing and sale of human therapeutic and diagnostic products. Product liability claims or product recalls, regardless of the ultimate outcome, could require us to spend significant time and money in litigation and to pay significant damages. We currently have a limited amount of product liability insurance coverage. If we decide to increase our coverage, we may not be able to obtain such additional product liability insurance at a reasonable cost or in sufficient amounts to protect us against losses due to liability claims.

We could incur liabilities relating to hazardous materials that we use in research and development activities

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive materials. There is a risk of accidental contamination or injury from these materials. In the event of such an accident, we could be held liable for any damages that result. This type of liability could exceed our resources.

RISKS RELATING TO OUR CONVERTIBLE SUBORDINATED NOTES

Substantial leverage and debt service obligations may adversely affect our cash flow

We have substantial amounts of outstanding indebtedness, primarily our 5.50% Convertible Subordinated Notes due January 15, 2007. We also may obtain additional long term debt and working capital lines of credit. As a result of this indebtedness, our principal and interest payment obligations are substantial. There is the possibility that we may be unable to generate cash sufficient to pay the principal of, interest on and other amounts due in respect of our indebtedness when due.

Our substantial leverage could have significant negative consequences, including:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing;

- requiring the dedication of a substantial portion of our cash from operations to service our indebtedness, thereby reducing the amount of our cash available for other purposes, including capital expenditures;
- limiting our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- placing us at a possible competitive disadvantage vis-a-vis less leveraged competitors and competitors that have better access to capital resources.

We may be unable to repurchase our outstanding notes as required by their terms

At maturity, the entire outstanding principal amount of our 5.5% convertible subordinated notes will become due and payable. In addition, if a change in control, as defined in the indenture relating to the notes, occurs, each holder of the notes may require us to repurchase all or a portion of that holder's notes. At maturity or if a change in control occurs, we may not have sufficient funds or may be unable to arrange for additional financing to pay the principal amount or repurchase price due. Under the terms of the indenture for the notes, we may elect, if we satisfy certain conditions specified in the indenture, to pay the repurchase price with shares of common stock. Our borrowing arrangements or agreements relating to senior debt to which we become a party may contain restrictions on, or prohibitions against, our repurchases of the notes. If the maturity date or change in control occurs at a time when our other arrangements prohibit us from repurchasing the notes, we could try to obtain the consent of the lenders under those arrangements to purchase the notes, or we could attempt to refinance these borrowings that contain the restrictions. If we do not obtain the necessary consents or refinance these borrowings, we will be unable to repurchase the notes. In that case, our failure to repurchase any tendered notes or notes due upon maturity would constitute an event of default under the indenture. Any such default, in turn, may cause a default under the terms of our senior debt. As a result, in those circumstances, the subordination provisions of the indenture would, absent a waiver, prohibit any repurchase of the notes until we pay the senior debt in full.

Item 2. PROPERTIES

We lease a total of approximately 600,000 square feet of laboratory and office space in several buildings located in Cambridge, Massachusetts, with the majority of this space subject to long term leases expiring in 2003, 2013 and 2014. We are in the process of seeking additional space to support our anticipated growth and expect to enter into additional long term leases during 2000.

Item 3. LEGAL PROCEEDINGS

The Company is 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 security holders of the Company, through solicitation of proxies or otherwise, during the last quarter of the year ended December 31, 1999.

EXECUTIVE OFFICERS OF THE COMPANY

The following table sets forth the names, ages and positions of the executive officers of the Company.

Name	Age	Positions Held
Mark J. Levin	49	Chairman of the Board of Directors, President and Chief Executive Officer
Kenneth J. Conway	51	President of MPMx
John B. Douglas III	46	General Counsel
Steven H. Holtzman	46	Chief Business Officer
John Maraganore, Ph.D.	37	Vice President, Strategic Planning and M&A
Christopher K. Mirabelli, Ph.D.	45	President of Pharmaceutical Research and Development and Director
Linda K. Pine	48	Senior Vice President, Human Resources
Kevin P. Starr	37	Chief Financial Officer
Robert Tepper, M.D.	44	Chief Scientific Officer

Mr. Levin has served as our Chairman of the Board of Directors since March 1996, as our Chief Executive Officer since November 1994 and as a director of the Company since its inception. From 1987 to 1994, Mr. Levin was a partner at Mayfield Fund, a venture capital firm, and co-director of its Life Science Group. While employed with Mayfield, Mr. Levin was the founding Chief Executive Officer of several biotechnology and biomedical companies, including Cell Genesys Inc., CytoTherapeutics Inc., Tularik Inc. and Focal, Inc. Mr. Levin holds an M.S. in Chemical and Biomedical Engineering from Washington University. Mr. Levin also serves on the Board of Directors of CytoTherapeutics and Tularik.

Mr. Conway has served as president of Millennium Predictive Medicine, Inc., a majority-owned subsidiary of the Company, since its founding in September 1997, after more than 26 years with Chiron Diagnostics Corporation (formerly Ciba Corning), a medical diagnostics company, most recently as Senior Vice President and General Manager of Immuno Diagnostics from 1996 to 1997. Previously, Mr. Conway was a Member of the Office of the President while President of the U.S. group of Chiron from 1991 to 1996. Other positions he held at Chiron include Vice President of several business units, as well as Vice President of manufacturing at the former Corning Medical.

Mr. Douglas has served as our General Counsel since May 1999. Prior to joining us, Mr. Douglas was engaged in the private practice of law as a sole practitioner and as a partner at the Boston law firm of Hutchins, Wheeler & Dittmar from October 1997 until May 1999. Mr. Douglas was previously Senior Vice President and General Counsel of Apple Computer, Inc., a computer hardware company, from January to October 1997. Mr. Douglas was Senior or Executive Vice President and General Counsel of Reebok International Ltd., a sports and fitness products company, from 1994 to January 1997, and was responsible for several other corporate staff functions for most of this period, including Real Estate, Tax, Human Resources and Public Affairs, and he was Vice President and General Counsel of Reebok from 1986 to 1994. Mr. Douglas received his J.D. from Harvard Law School and his A.B. from Colgate University.

Mr. Holtzman has served as Chief Business Officer of the Company since May 1994. From 1986 to 1993, Mr. Holtzman was with DNX Corporation, a biomedical company, and its subsidiaries. He was founder and first employee of DNX, where he served as a member of the Board of Directors and Executive Vice President. Mr. Holtzman received his graduate B.Phil. degree in Philosophy from Oxford University, which he attended as a Rhodes Scholar. Mr. Holtzman currently serves as the sole biotechnology and pharmaceutical industry representative appointed to President Clinton's National Bioethics Advisory Commission and is a member of the Board of Trustees of the Hastings Center.

Dr. Maraganore was appointed our Vice President, Strategic Planning and M&A on December 21, 1999. From July 1997 to December 21, 1999, he served as a director and from May 1997 to December 21, 1999, he served as Vice President and General Manager, of Millennium BioTherapeutics Inc., a majority-owned subsidiary of the Company which merged into the Company on December 21, 1999. Dr. Maraganore served from 1987 to 1997 at Biogen, Inc., a biopharmaceutical company, serving from 1995 to 1997 as Director of Marketing and Business Development and from 1992 to 1995 as Director of Biological Research. Dr. Maraganore received his Ph.D. from the University of Chicago.

Dr. Mirabelli has served as President, Pharmaceutical Research and Development and a director since December 22, 1999, the date of the LeukoSite merger. Previously, he was Chairman of the Board of Directors, President and Chief Executive Officer of LeukoSite, positions he had held since July 1993. Dr. Mirabelli was a founder of Isis Pharmaceuticals, Inc., a biotechnology company, where he served as Executive Vice President from 1992 to 1993, Senior Vice President of Research and Preclinical Development from 1991 to 1992, and Vice President of Research from 1989 to 1991. Dr. Mirabelli received his B.S. in Biology from the State University of New York at Fredonia and his Ph.D. in pharmacology from Baylor College of Medicine.

Ms. Pine has served as Senior Vice President, Human Resources of the Company since October 1994. From 1990 to 1994, Ms. Pine served as Vice President of Consulting Services for The Survey Group, a regional human resources survey and consulting firm. From 1982 to 1990, she was Vice President of Human Resources and Corporate Relations with Collaborative Research, Inc. (now Genome Therapeutics Corporation). She earned her B.A. from Brandeis University and her M.P.A. from Northeastern University.

Mr. Starr has served as Chief Financial Officer of the Company since December 1998. From March 1998 to December 1998, he served as the Vice President, Finance of Millennium BioTherapeutics, Inc., while it was a majority-owned subsidiary of Millennium. Prior to joining Millennium Biotheraputics, Mr. Starr held the positions of Corporate Controller and Manager of Financial Analysis at Biogen from 1991 to 1998. Mr. Starr holds a B.A. degree in mathematics and business from Colby College and an M.S. degree in corporate finance from Boston College.

Dr. Tepper has served as Chief Scientific Officer of the Company since March 1999. He joined us in August 1994 as Director, Biology and then was Vice President, Biology from January 1996 to November 1997 and Chief Scientific Officer, Pharmaceuticals from November 1997 to March 1999. From 1990 to 1994, Dr. Tepper served as Director of the Laboratory of Tumor Biology at Massachusetts General Hospital Cancer Center where he was the recipient of a Lucille P. Markey Biomedical Scholar award. Dr. Tepper is also a founder and member of the Scientific Advisory Board of Cell Genesys Inc. Dr. Tepper received his M.D. from Harvard Medical School and did his residency in medicine at Massachusetts General Hospital where he was Chief Resident.

PART II

Item 5. MARKET FOR THE COMPANY'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

(a) Market Price of and Dividends on Millennium's Common Stock and Related Stockholder Matters

The Common Stock of Millennium has been traded on the Nasdaq National Market under the symbol MLNM since May 6, 1996. Prior to May 6, 1996, Millennium's Common Stock was not publicly traded. The following table sets forth for the periods indicated the high and low closing prices per share of our Common Stock as reported by the Nasdaq National Market.

Our common stock is traded on the Nasdaq National Market under the symbol "MLNM". The following table reflects the range of the reported high and low last sale prices on the Nasdaq National Market for the periods indicated.

	1999		1998	
	High	Low	High	Low
First quarter	$ 38.13	$25.44	$22.38	$17.75
Second quarter	40.38	30.00	19.00	14.13
Third quarter	77.41	36.75	18.69	10.57
Fourth quarter	141.69	62.25	25.88	14.75

On February 15, 2000, the closing price per share of our common stock was $217.75, as reported on The Nasdaq National Market and we had approximately 540 stockholders of record.

We have never declared or paid any cash dividends on our common stock and we anticipate that we will continue to retain any earnings for the foreseeable future for use in the operation of our business and that we will not pay any cash dividends in the foreseeable future.

Item 6. SELECTED FINANCIAL DATA

Millennium Pharmaceuticals, Inc.

Selected Financial Data

Year Ended December 31,	1995	1996	1997	1998	1999
Statement of Operations Data: (in thousands, except per share amounts)					
Revenue under strategic alliances	$ 22,880	$ 31,764	$ 89,933	$ 133,682	$ 183,679
Costs and expenses:					
Research and development	17,838	34,803	74,828	114,190	159,877
General and administrative	3,292	7,973	16,517	24,419	32,896
Acquired in-process R&D	—	—	83,800	—	350,503
Amortization of intangible assets	—	—	2,397	2,702	3,816
	21,130	42,776	177,542	141,311	547,092
Income (loss) from operations	1,750	(11,012)	(87,609)	(7,629)	(363,413)
Interest income (expense), net	(466)	2,244	2,977	3,788	9,473
Minority interest	—	—	3,410	14,179	1,980
Net income (loss)	$ 1,284	$ (8,768)	$ (81,222)	$ 10,338	$(351,960)
Basic net income (loss) per share (pro forma in 1995 and 1996)	$ 0.09	$ (0.40)	$ (2.87)	$ 0.34	$ (10.45)
Shares used in computing basic net income (loss) per share	13,852	21,697	28,323	30,319	36,353
Diluted net income (loss) per share (pro forma in 1995 and 1996)	$ 0.07	$ (0.40)	$ (2.87)	$ 0.33	$ (10.45)
Shares used in computing diluted net income (loss) per share	17,854	21,697	28,323	31,508	36,353

Year Ended December 31,	1995	1996	1997	1998	1999
Consolidated Balance Sheet Data: (in thousands)					
Cash, cash equivalents and marketable securities	$ 17,847	$ 63,848	$ 96,557	$ 190,964	$ 261,716
Working capital	10,498	60,273	85,571	178,395	227,347
Total assets	25,105	87,744	144,513	257,954	541,625
Long-term debt, net of current portion	1,467	—	—	—	—
Capital lease obligations, net of current portion	2,499	9,308	19,809	24,827	27,488
Stockholders' equity	13,096	66,639	91,755	206,362	439,406

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

Overview

Millennium was founded in 1993. We incorporate large-scale genetics, genomics, high throughput screening, and informatics in an integrated science and technology platform which we apply primarily in discovering and developing proprietary therapeutic and diagnostic human healthcare products and services. We currently derive substantially all of our revenue from strategic alliances with major pharmaceutical and biotechnology companies.

During 1999, we expanded our operations through internal growth, additional strategic alliances and acquisitions. We also hired additional staff in research and drug discovery, informatics, biotherapeutics and diagnostics/prognostics, as well as in other support areas. In December 1999, we acquired LeukoSite in a stock-for-stock merger. LeukoSite is a leader in the discovery and development of therapeutics based upon the biology of leukocytes. Therapeutics developed using LeukoSite technology may be used to treat cancer and inflammatory, autoimmune and viral diseases. Through the LeukoSite acquisition, we extended our pipeline of small molecule and biotherapeutic drug candidates, principally in the areas of oncology and inflammation, and added several preclinical product candidates and six product candidates in clinical trials.

To date, all of our revenues have resulted from payments from strategic partners and United States government research grants. We have not received any revenue from the sale of products. Our current strategic alliances include the following: two agreements with the Wyeth-Ayerst Division of American Home Products in certain disorders of the central nervous system and in bacterial diseases; an agreement with Bayer in cardiovascular disease, and certain areas of oncology osteoporosis, pain, liver fibrosis, hematology and viral infections; and an agreement with Monsanto in plant agriculture. In addition through our acquisition of LeukoSite we gained the following strategic alliances: a partnership with ILEX Oncology for product development of CAMPATH®, a monoclonal antibody product for use in the treatment of chronic lymphocytic leukemia, for which we are currently seeking FDA regulatory approval; and an agreement, through our joint venture partnership with ILEX Oncology, with Schering AG/Berlex Laboratories for product distribution of the CAMPATH® product. In addition, we have a number of other strategic alliances. Our strategic alliance agreements have provided us with various combinations of equity investments, license fees and research funding, and may provide certain additional payments contingent upon the attainment of research and regulatory milestones and royalty and/or profit sharing payments based on sales of any products resulting from the collaborations.

During 2000, we expect to continue to pursue additional alliances and to consider joint development, merger, or acquisition opportunities that may provide us with access to products on the market or in later stages of commercial development than those represented within our current programs. We expect that we will incur increasing expenses and may incur increasing operating losses for at least the next several years, primarily due to expansion of facilities and research and development programs, and as a result of efforts to advance acquired products or our own development programs to commercialization. Our revenues under strategic alliance and licensing arrangements may fluctuate from period to period or year to year; these fluctuations, as well as fluctuations in spending, may result in periods of profitability and periods of losses. Therefore, our results of operations for any period may not be indicative of future results of operations.

Results of Operations

Years Ended December 31, 1999 and December 31, 1998

For the year ended December 31, 1999 (the "1999 Period"), we reported a net loss of $352.0 million or $10.45 per basic and diluted share as compared to net income of $10.3 million or

$0.34 per basic share and $0.33 per diluted share for the year ended December 31, 1998 (the "1998 Period").

Revenue under strategic alliances increased to $183.7 million for the 1999 Period from $133.7 million for the 1998 Period. During 1999, we recognized revenue from all nine of our partners in twelve alliances. The 1999 Period included $82.5 million from Bayer representing a combination of additional license and research program fees. In addition, during 1999, Monsanto provided $36.4 million in a combination of program and technology transfer fees, performance payments for achievement of research objectives, and payments for administrative and facilities services. During the 1998 Period, we recognized revenue from all seven of our partners in ten alliances. The 1998 Period included a $33.4 million one-time payment from Bayer for licenses granted. In addition, during 1998, Monsanto provided $38.2 million in a combination of program and technology transfer fees, performance payments for achievement of research objectives, and payments for administrative and facilities services. The 1998 Period included a full year of research funding under our eight other alliances as well. Revenues may fluctuate from period to period and there can be no assurance that strategic alliance agreements will continue for their initial term or beyond.

Research and development expenses increased to $159.9 million for the 1999 Period from $114.2 million for the 1998 Period. The increase was primarily attributable to increased personnel and facilities expenses, increased purchases of laboratory supplies, costs of external collaborations and increased equipment depreciation. We expect research and development expenses to continue to increase as personnel are added and as research and development activities are expanded to accommodate our existing strategic alliances and development efforts. As a result of the LeukoSite merger, we expect to incur significant increases in research and development expense resulting from the addition of several preclinical product candidates and six product candidates in clinical trials.

General and administrative expenses increased to $32.9 million for the 1999 Period from $24.4 million for the 1998 Period. The increase was primarily attributable to increased expenses for additional management and administrative personnel, as well as to increases in facilities expenses, consulting, and other professional fees associated with the expansion and increased complexity of our operations and business development efforts. We expect that general and administrative expenses will continue to increase as we add capabilities to support the further advancement of our development efforts.

On December 22, 1999, we acquired LeukoSite for an aggregate purchase price of $550.4 million primarily consisting of 6,676,933 shares of Common Stock and 884,087 shares of Common Stock issuable upon the exercise of LeukoSite options and warrants. The transaction has been recorded as a purchase for accounting purposes and the consolidated financial statements include LeukoSite's operating results from the date of the acquisition. The purchase price has been allocated, based upon an independent valuation, to the assets purchased and liabilities assumed based upon their respective fair values, with the excess of the purchase price over the estimated fair market value of net tangible assets allocated to in-process research and development, assembled workforce, core technology, and goodwill.

Amounts allocated to goodwill, assembled workforce, and core technology are being amortized on a straight-line basis over a period of four years. The 1999 amortization expense related to these intangibles was $1.1 million. We incurred a nonrecurring charge to operations of $350.5 million for acquired in-process research and development. The valuation of acquired in-process research and development represents the estimated fair value related to incomplete projects that, at the time of the acquisition, had no alternative future use and for which technological feasibility had not been established.

The cost approach was used to value assembled workforce. This approach establishes the fair value of an asset by calculating the recruiting and loss of productivity costs avoided by obtaining a pre-

existent, trained, and fully efficient team. The income approach was used to establish the fair values of core technology and in-process research and development. This approach establishes the fair value of an asset by estimating the after-tax cash flows attributable to the asset over its useful life and then discounting these after-tax cash flows back to a present value.

With respect to the value of purchased research and development, we considered, among other factors, the research and development project's stage of completion, the complexity of the work completed to date, the costs already incurred, the projected costs to complete, the contribution of core technologies and other acquired assets, the projected date to market and the estimated useful life. The respective after-tax cash flows were then discounted back to present value using a risk-adjusted discount rate. The discount rates used in the analysis ranged from 19% to 23¼% depending upon the risk profile of the asset.

We believe that the assumptions used to value the acquired intangibles were reasonable at the time of the acquisition. No assurance can be given, however, that the underlying assumptions used to estimate expected project revenues, development costs or profitability, or the events associated with such projects, will transpire as estimated. For these reasons, among others, actual results may vary from the projected results.

The in-process technology acquired from LeukoSite consisted of five significant research and development projects with values assigned of $14.8 million to $136.3 million for each project. These included humanized monoclonal antibodies for the treatment of refractory chronic lymphocytic leukemia, inflammatory bowel disease and the prevention of post-ischemic reperfusion, small molecule chemotherapeutic agents, and a small molecule compound for treatment of bronchial asthma. Acquired in-process technologies related to preclinical projects consisted of treatments primarily for inflammatory and autoimmune conditions and diseases, as well as treatments for asthma and allergies and were assigned values of $85.8 million. Through the acquisition date, LeukoSite had spent approximately $150 million on in-process research and development projects. We expect to incur approximately $10 million to $25 million for each of the four remaining significant projects and approximately $45 million for all of the projects in preclinical development, to develop the in-process technology into commercially viable projects.

The estimated stage of completion for acquired research and development projects ranged from 45% to 95%. Of the five projects acquired, one project reached completion in late 1999 with the filing of the BLA, while the others, which are in various stages of Phase I and II clinical trials, are expected to reach completion in 2003 through 2006. The first of the molecules comprising the preclinical development portfolio is expected to reach completion in 2006. To successfully complete the aforementioned projects we will be required to undertake and complete a number of significant activities, including product validation, the successful completion of clinical trials, and governmental regulatory approvals.

Our ability to successfully complete the research and development projects will be dependent upon numerous factors over which we may have limited or no control. For a discussion of certain factors which may affect our actual results, see "Risk Factors That May Affect Results" beginning on page 22 of this Annual Report on Form 10-K. If these projects are not successfully developed, we may not realize the value assigned to the in-process technology. Additionally, the value of the other intangible assets acquired may also become impaired.

Interest income increased to $12.5 million for the 1999 Period from $6.2 million for the 1998 Period. The increase resulted from an increase in our average balance of cash, cash equivalents and marketable securities. Interest expense increased to $3.0 million for the 1999 Period from $2.4 million for the 1998 Period due to increased capital lease obligations.

The minority interest of $2.0 million in 1999 includes the minority shareholder interest of Lilly in the net loss for the 1999 Period of our subsidiary, Millennium BioThereapeutics, Inc.("MBio"), as well

as the minority shareholder interest of Becton Dickinson in the net income for the 1999 Period of our majority owned subsidiary, Millennium Predictive Medicine Inc.(“MPMx”). As of October 14, 1999, Lilly no longer owned a minority interest in MBio. On December 22, 1999, we merged MBio into us. The minority interest of $14.2 million in 1998 represents the entire net loss of MBio. This loss is attributed completely to the minority stockholder because the minority stockholder provided all equity funding for MBio during 1998.

Years Ended December 31, 1998 and December 31, 1997

For the 1998 Period, we reported net income of $10.3 million or $0.34 per basic share and $0.33 per diluted share as compared to a net loss of $81.2 million or $2.87 per basic and diluted share for the year ended December 31, 1997 (the “1997 Period”).

Revenue under strategic alliances increased to $133.7 million for the 1998 Period from $89.9 million for the 1997 Period. During the 1998 Period, we recognized revenue from all seven of our partners in ten alliances. During the 1997 Period, we recognized revenue from six partners, AHP, Astra, Lilly, Monsanto, Roche and Pfizer in nine alliances. The 1998 Period included a $33.4 million one-time payment from Bayer. In addition, during 1998, Monsanto provided $38.2 million in a combination of program and technology transfer fees, performance payments for achievement of research objectives, and payments for administrative and facilities services. The 1998 Period included a full year of research funding under our eight other alliances as well. The 1997 Period included a one-time license fee of $38 million from Monsanto.

Research and development expenses increased to $114.2 million for the 1998 Period from $74.8 million for the 1997 Period. The increase was primarily attributable to increased personnel and facilities expenses, increased purchases of laboratory supplies, external collaborations and increased equipment depreciation.

General and administrative expenses increased to $24.4 million for the 1998 Period from $16.5 million for the 1997 Period. The increase was primarily attributable to increased expenses for additional management and administrative personnel, as well as to increases in facilities expenses, consulting, and other professional fees associated with the expansion and increased complexity of our operations and business development efforts.

During 1997, we acquired ChemGenics Pharmaceuticals Inc. (“ChemGenics”) for approximately 4.8 million shares of our common stock at $21.50 per share. In connection with the ChemGenics acquisition, we incurred a nonrecurring charge of $83.8 million for acquired in-process research and development in 1997, and amortization expense of $2.7 million in 1998 and $2.4 million in 1997. The in-process research and development was charged to operations because, in management’s opinion, technological feasibility for the acquired research and development had not been established and would require a significant amount of additional expenditures over a number of years.

Interest income increased to $6.2 million for the 1998 Period from $4.4 million for the 1997 Period. The increase resulted from an increase in our average balance of cash, cash equivalents and marketable securities. Interest expense increased to $2.4 million for the 1998 Period from $1.4 million for the 1997 Period due to increased capital lease obligations.

The minority interest of $14.2 million in 1998 and $3.4 million in 1997 represents the entire net loss of MBio. This loss is attributed completely to the minority stockholder because the minority stockholder provided all equity funding for MBio during these periods.

Liquidity and Capital Resources

As of December 31, 1999, we had approximately $261.7 million in cash, cash equivalents and marketable securities, an increase of $70.8 million from December 31, 1998. This excludes $11.2 million of interest-bearing marketable securities classified as restricted cash and other assets on the balance

sheet which serve as security deposits for certain of our facilities leases. The increase in cash, cash equivalents and marketable securities is primarily due to cash provided by operations of $22.0 million, the sale of MPMx capital stock of $15.0 million to Becton Dickinson and proceeds from exercises of stock options of $34.1 million. Significant cash outflows included the purchase of $21.3 million of property and equipment and $9.6 million to pay capital lease obligations.

In February 1999, the Company's subsidiary, MPMx formed a strategic alliance in the diagnostics field with Becton Dickinson. On March 31, 1999, Becton Dickinson made an equity investment in MPMx of $15.0 million, representing approximately an 11% voting interest in MPMx, and paid a $3.0 million licensing fee to MPMx.

In January 2000, we completed a sale, pursuant to Rule 144A of the Securities Act of 1933, of $400 million of 5.5% Convertible Subordinated Notes due January 15, 2007. The Notes are convertible into shares of our common stock at any time prior to maturity at a price equal to $168.28 per share, subject to adjustment, unless previously repurchased or redeemed by us under certain circumstances. Under the terms of the Notes, we will be required to make semi-annual interest payments on the outstanding principal balance of the Notes on January 15th and July 15th of each year.

During 1999, we acquired assets under capital leases totaling $12.8 million. At December 31, 1999, the aggregate outstanding commitment under capital lease obligations was $38.5 million. Over the next several years, we expect capital expenditures to continue at a level at least as significant as expenditures in 1999 as we expand facilities and acquire equipment to support increased research and development and other efforts.

As of December 31, 1999, we had net operating loss carryforwards of approximately $178 million to offset future federal taxable income and $142.3 million to offset future state taxable income through 2013. Due to the degree of uncertainty related to the ultimate realization of such prior losses, no benefit has been recognized as of December 31, 1999. Moreover, our ability to utilize these losses in future years may be limited under the change of stock ownership rules of the Internal Revenue Service.

We believe that existing cash, including the proceeds from our January 2000 convertible note offering, our investment securities, and the anticipated cash flow from our current strategic alliances will be sufficient to support our existing operations for the near term. Our actual future cash requirements, however, will depend on many factors, including the progress of our disease research programs, the number and breadth of these programs, achievement of milestones under strategic alliance arrangements, acquisitions, our ability to establish and maintain additional strategic alliance and licensing arrangements, and the progress of our development efforts and the development efforts of our strategic partners.

We expect that we will require significant additional financing in the future, which we may seek to raise through public or private equity offerings, debt financings, additional strategic alliances or other financing vehicles. However, we can make no assurance that additional financing, strategic alliances or licensing arrangements will be available when needed or that, if available, such financing will be obtained on terms favorable to us or our stockholders. Our forecast of the period of time through which our financial resources will be adequate to support our operations is forward-looking information, and, as such, actual results may vary.

Impact of Year 2000

In prior years, we discussed the nature and progress of our plans to prepare for any system or processing failures which could result from computer programs recognizing the dates represented as "00" as the year 1900 rather than the year 2000. In late 1999, we completed our remediation and testing of our software and hardware systems. As a result of our planning and implementation efforts, we experienced no significant disruptions in mission critical information technology and non-information technology systems and we believe those systems successfully responded to the Year 2000

date change. Our costs to date concerning the Year 2000 problem have not been material. We are not aware of any material problems resulting from Year 2000 issues, either with our product candidates, our internal systems, or the products and services of third parties. We will continue to monitor our mission critical computer applications and those of our suppliers and vendors throughout the year 2000 to ensure that any latent Year 2000 matters that may arise are addressed promptly.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We maintain an investment portfolio in accordance with our Investment Policy. The primary objectives of our Investment Policy are to preserve principal, maintain proper liquidity to meet operating needs and maximize yields. Although our investments are subject to credit risk, our Investment Policy specifies credit quality standards for our investments and limits the amount of credit exposure from any single issue, issuer or type of investment. Our investments are also subject to interest rate risk. However, due to the conservative nature of our investments and relatively short duration, interest rate risk is mitigated. We do not own derivative financial instruments in our investment portfolio.

The interest rates on our capital lease obligations are fixed and therefore not subject to interest rate risk.

Accordingly, we do not believe that there is any material market risk exposure with respect to derivative or other financial instruments which would require disclosure under this item.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Millennium Pharmaceuticals, Inc.

Report of Independent Auditors

Board of Directors and Stockholders
Millennium Pharmaceuticals, Inc.

We have audited the accompanying consolidated balance sheets of Millennium Pharmaceuticals, Inc. as of December 31, 1999 and 1998, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1999. 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 evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Millennium Pharmaceuticals, Inc. at December 31, 1999 and 1998, and the consolidated results of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 1999, in conformity with accounting principles generally accepted in the United States.

Ernst & Young LLP
January 27, 2000
Boston, Massachusetts

Millennium Pharmaceuticals, Inc.

Consolidated Balance Sheets

December 31, (in thousands, except per share amounts)	1999	1998
Assets		
Current assets:		
Cash and cash equivalents	$ 56,775	$138,284
Marketable securities	204,941	52,680
Due from strategic partners	11,579	6,660
Prepaid expenses and other current assets	13,215	5,033
Total current assets	286,510	202,657
Property and equipment, net	59,543	38,170
Restricted cash and other assets	12,965	11,416
Intangible assets, net	182,607	5,711
Total assets	$ 541,625	$257,954
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 22,953	$ 6,918
Accrued expenses	17,306	6,186
Deferred revenue	7,936	2,501
Current portion of capital lease obligations	10,968	8,657
Total current liabilities	59,163	24,262
Capital lease obligations, net of current portion	27,488	24,827
Minority interest	15,568	2,503
Commitments and contingencies		
Stockholders' equity:		
Preferred Stock, $0.001 par value; 5,000 shares authorized, none issued	—	—
Common Stock, $0.001 par value; 100,000 shares authorized; 44,650 shares in 1999 and 34,923 shares in 1998 issued outstanding	45	35
Additional paid-in capital	883,169	296,370
Deferred compensation	(1,055)	(957)
Notes receivable from officers	(1,026)	(87)
Accumulated other comprehensive income (loss)	(739)	29
Accumulated deficit	(440,988)	(89,028)
Total stockholders' equity	439,406	206,362
Total liabilities and stockholders' equity	$ 541,625	$257,954

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

Millennium Pharmaceuticals, Inc.
Consolidated Statements of Operations

Year Ended December 31, (in thousands, except per share amounts)	1999	1998	1997
Revenue under strategic alliances	$ 183,679	$133,682	$ 89,933
Costs and expenses:			
Research and development	159,877	114,190	74,828
General and administrative	32,896	24,419	16,517
Acquired in-process R&D	350,503	—	83,800
Amortization of intangible assets	3,816	2,702	2,397
	547,092	141,311	177,542
Loss from operations	(363,413)	(7,629)	(87,609)
Interest income	12,511	6,198	4,412
Interest expense	(3,038)	(2,410)	(1,435)
Minority interest	1,980	14,179	3,410
Net income (loss)	$(351,960)	$ 10,338	$(81,222)
Basic net income (loss) per share	$ (10.45)	$ 0.34	$ (2.87)
Shares used in computing basic net income (loss) per share	36,353	30,319	28,323
Diluted net income (loss) per share	$ (10.45)	$ 0.33	$ (2.87)
Shares used in computing diluted net income (loss) per share	36,353	31,508	28,323

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

Millennium Pharmaceuticals, Inc.

Consolidated Statements of Cash Flows

	Year Ended December 31,		
	1999	1998	1997
		(in thousands)	
Operating activities			
Net income (loss)	$(351,960)	$ 10,338	$(81,222)
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Acquired in-process R&D	350,503	—	83,800
Depreciation and amortization	20,951	16,284	12,168
Minority interest	(1,980)	(14,179)	(3,410)
Net loss on asset disposal	—	97	433
Stock compensation	4,041	2,029	1,693
Changes in operating assets and liabilities:			
Prepaid expenses and other current assets	(6,166)	(438)	(1,706)
Due from strategic partners	(4,919)	(5,882)	4,932
Restricted cash and other assets	(1,126)	(6,276)	(4,465)
Accounts payable and accrued expenses	9,993	5,645	2,962
Deferred revenue	2,654	(552)	(1,480)
Net cash provided by operating activities	21,991	7,066	13,705
Investing activities			
Purchase of property and equipment	(21,311)	(7,590)	(4,256)
Sale of marketable securities	84,950	59,606	58,728
Investment in Transform Pharmaceuticals	(107)	—	—
Cash acquired through acquisition of ChemGenics	—	—	7,087
Cash acquired through acquisition of LeukoSite	11,234	—	—
Purchase of marketable securities	(217,805)	(84,932)	(30,778)
Net cash provided by (used in) investing activities	(143,039)	(32,916)	30,781
Financing activities			
Proceeds from sale of Common Stock and warrants	—	96,600	—
Proceeds from sale of subsidiary stock	15,000	—	20,000
Net proceeds from employee stock purchases	34,105	5,699	2,039
Payments on long-term debt	—	—	(1,467)
Payments of capital lease obligations	(9,566)	(7,401)	(5,910)
Net cash provided by financing activities	39,539	94,898	14,662
Increase (decrease) in cash and cash equivalents	(81,509)	69,048	59,148
Cash and cash equivalents at beginning of year	138,284	69,236	10,088
Cash and cash equivalents at end of year	$ 56,775	$138,284	$ 69,236
Noncash investing and financing activities:			
Equipment acquired under capital leases	$ 12,818	$ 15,229	$ 17,426
Deferred compensations relating to issuance of stock options	1,059	—	—
Acquisition of LeukoSite, including direct transaction costs of $2,700	550,371	—	—
MPI buyout of Lilly interest in MBio	27,944	—	—
Cash paid for interest	3,038	2,410	1,435

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

Milleniumm Pharmaceuticals, Inc.

Statements of Stockholders' Equity

(in thousands, except shares)	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Deferred Compensation	Notes Receivable from Officers	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity
Balance at December 31, 1996	23,914,151	$24	$ 87,790	$(2,768)	$ (245)	$ (18)	$ (18,144)	$ 66,639
Issuance of Common Stock	4,783,688	5	102,844	(247)				102,602
Repurchase of Common Stock	(87,130)		(23)					(23)
Exercise of stock warrants	123,589							
Employee stock purchases	415,312		2,062					2,062
Forgiveness of notes from officers					79			79
Stock compensation expense			370					370
Write off deferred stock compensation			(119)	119				
Stock compensation earned				904				904
408K stock match	19,788		330					330
Net loss							(81,222)	(81,222)
Other comprehensive income						14		14
Comprehensive loss								(81,208)
Balance at December 31, 1997	29,169,398	29	193,254	(1,992)	(166)	(4)	(99,366)	91,755
Issuance of Common Stock	4,957,660	5	96,595					96,600
Repurchase of Common Stock	(55,200)		(23)					(23)
Exercise of stock warrants	23,090							
Employee stock purchases	796,938	1	5,629					5,630
Forgiveness of notes from officers					79			79
Stock compensation expense			565					565
Write off deferred stock compensation			(182)	182				
Stock compensation earned				853				853
401K stock match	31,318		532					532
Net income							10,338	10,338
Other comprehensive income						33		33
Comprehensive income								10,371
Balance at December 31, 1998	34,923,204	$35	$296,370	$ (957)	$ (87)	$ 29	$ (89,028)	$ 206,362
Issuance of Common Stock	9,452,999	10	580,523					580,533
Repurchase of Common Stock	(2,707)		(1)					(1)
Exercise of stock warrants	126,114							
Employee stock purchases	122,881		2,226					2,226
Issuance of Common Stock in exchange for note from officer					(1,026)			(1,026)
Forgiveness of notes from officers					87			87
Deferred stock compensation			1,059	(1,059)				
Stock compensation expense			1,815					1,815
Write off deferred stock compensation			(33)	33				
Stock compensation earned				928				928
401K stock match	28,126		1,210					1,210
Net income							(351,960)	(351,960)
Other comprehensive loss						(768)		(768)
Comprehensive income								(352,728)
Balance at December 31, 1999	44,650,617	$45	$883,169	$(1,055)	$(1,026)	$(739)	$(440,988)	$ 439,406

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

Millennium Pharmaceuticals, Inc.

Notes to Consolidated Financial Statements

December 31, 1999

[1] Basis of Presentation

The Company

Millennium Pharmaceuticals, Inc. incorporates large-scale genetics, genomics, high throughput screening, and informatics in an integrated science and technology platform. Millennium applies this technology platform primarily in discovering and developing proprietary therapeutic and diagnostic human healthcare products and services. The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiary, Millennium BioTherapeutics, Inc. ("MBio"), and its 89%-owned subsidiary, Millennium Predictive Medicine, Inc. ("MPMx"). As more fully described in Note 3, in December 1999, MBio was merged into the Company. As more fully described in Note 4, the consolidated financial statements also include the accounts of LeukoSite, Inc. subsequent to December 22, 1999. All intercompany transactions have been eliminated in consolidation.

Risks and Uncertainties

The preparation of financial statements in accordance with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

[2] Significant Accounting Policies

Cash Equivalents and Marketable Securities

Cash equivalents consist principally of money market funds and corporate bonds with original maturities of three months or less at the date of purchase. Cash equivalents and marketable securities at December 31, 1999 and 1998 are classified as available-for-sale.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash equivalents and marketable securities. The Company's cash equivalents and marketable securities are held by high-credit-quality financial institutions. By policy, the Company limits the credit exposure to any one financial institution. At December 31, 1999, the Company had no significant concentrations of credit risk.

Property and Equipment

Equipment consists principally of assets held under capitalized leases and is stated at the present value of future minimum lease obligations. Depreciation is recorded over the shorter of the estimated useful life or the term of the lease using the straight-line method. Leasehold improvements are stated at cost and are amortized over the remaining life of the building lease.

Intangible Assets

Intangible assets as of December 31, 1999 consist of goodwill and other intangibles. Goodwill and other intangible assets recorded in connection with the 1999 acquisition of LeukoSite, Inc. (See Note 4) are being amortized over a period of four years. Goodwill recorded in connection with the 1997 acquisition of ChemGenics Pharmaceuticals, Inc. is also being amortized over a period of four years. Amortization expense for all intangible assets was $3.8 million, $2.7 million, and $2.4 million in 1999,

[2] Significant Accounting Policies (Continued)

1998 and 1997, respectively. Accumulated amortization for all intangible assets was $8.9 million, $5.1 million and $2.4 million at December 31, 1999, 1998 and 1997, respectively. On a periodic basis, the Company estimates the future undiscounted cash flows of the businesses to which the intangible assets relate in order to ensure that the carrying value of such intangible assets has not been impaired.

Revenue Recognition

The Company recognizes revenue under strategic alliances as research services are performed, reimbursable expenses are incurred, certain milestones are achieved or license fees are earned.

Stock-Based Compensation

The Company has elected to follow Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" (APB 25), in accounting for its stock-based compensation plans, rather than the alternative fair value accounting method provided for under Financial Accounting Standards Board ("FASB") Statement of Financial Accounting Standards ("SFAS") No. 123, "Accounting for Stock-Based Compensation," as this alternative requires the use of option valuation models that were not developed for use in valuing employee stock options. Under APB 25, when the exercise price of options granted under these plans equals the market price of the underlying stock on the date of grant, no compensation expense is required.

Accounting Pronouncements

Effective January 1, 1998, the Company adopted SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information." SFAS No. 131 established standards for the way that public business enterprises report information about operating segments in annual financial statements and interim financial reports. SFAS No. 131 also established standards for related disclosures about products and services, geographic areas and major customers. The adoption of SFAS No. 131 did not affect results of operations or financial position. The Company has identified three operating segments which, under the applicable provision of SFAS No. 131, have been aggregated into one reportable segment. The Company conducts business exclusively in the United States.

In June 1998, the FASB issued SFAS 133, "Accounting for Derivative Instruments and Hedging Activities." The effective date of this statement was deferred to fiscal years beginning after June 15, 2000 by SFAS 137 "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date of SFAS 133." The Company believes the adoption of this new accounting standard will not have a significant effect to its financial statements as the Company's investment policies prohibit the use of derivatives.

In December 1999, the Securities and Exchange Commission (SEC) issued Staff Accounting Bulletin 101, "Revenue Recognition in Financial Statements" (SAB 101) which provides guidance related to revenue recognition based on interpretations and practices followed by the SEC. SAB 101 is effective the first fiscal quarter of fiscal years beginning after December 15, 1999 and requires companies to report any changes in revenue recognition as a cumulative change in accounting principle at the time of implementation in accordance with APB Opinion No. 20, "Accounting Changes." The Company is currently in the process of evaluating what impact, if any, SAB 101 will have on the financial position or results of operations of the Company.

[2] Significant Accounting Policies (Continued)

Income Taxes

The liability method is used to account for income taxes. Deferred tax assets and liabilities are determined based on differences between financial reporting and income tax bases of assets and liabilities, as well as net operating loss carryforwards, and are measured using the enacted tax rates and laws that will be in effect when the differences reverse. Deferred tax assets may be reduced by a valuation allowance to reflect the uncertainty associated with their ultimate realization.

Fair Value of Financial Instruments

The carrying amounts reported in the Company's balance sheets for other current assets and long-term debt approximate their fair value. The fair values of the Company's long-term debt are estimated using discounted cash flow analyses based on the Company's current incremental borrowing rates for similar types of borrowing arrangements.

[3] Subsidiaries

Millennium BioTherapeutics, Inc.

In May 1997, the Company established Millennium BioTherapeutics, Inc. ("MBio") as a subsidiary and, pursuant to a Technology Transfer and License Agreement, transferred and/or licensed certain technology to MBio in exchange for 9,000,000 shares of the subsidiary's Series A Convertible Preferred Stock. At that time, MBio entered into a strategic alliance with Lilly for the discovery and development of novel therapeutic proteins. Under the terms of a related stock purchase agreement, Lilly purchased $20 million of Series B Convertible Preferred Stock of MBio for an approximate 18% equity interest in MBio. The accompanying consolidated financial statements include the accounts of MBio since inception. The minority interest in the accompanying consolidated balance sheets reflects the equity interest of Lilly in MBio as of December 31, 1998 and the minority interest in the accompanying consolidated statements of operations includes the minority stockholder's interest in the net loss of MBio for the years ended December 31, 1999, 1998 and 1997.

In October 1999, Lilly was issued approximately 375,000 shares of Millennium Common Stock in exchange for all shares of MBio Series B Convertible Preferred Stock owned by it. Also in October 1999, MBio amended the terms of its strategic alliance with Lilly. Under the amendment, the research program was refocused from the discovery of new therapeutic proteins to further development of the therapeutic proteins which had been identified in the course of the research program. In December 1999, MBio was merged with and into the Company. Each share of Class B Common Stock of MBio was converted into Millennium Common Stock.

The Company had entered into certain agreements with this subsidiary to provide specific services and facilities at negotiated fees. Such fees amounted to $10.5 million and $12.5 million in 1999 and 1998, respectively. The Company had subleased approximately $0.6 million of equipment to MBio under an existing capital lease agreement. All such intercompany transactions have been eliminated in consolidation.

Millennium Predictive Medicine, Inc.

In September 1997, the Company established a wholly-owned subsidiary, Millennium Predictive Medicine, Inc. ("MPMx"), to develop products and services to optimize the prevention, diagnosis,

[3] Subsidiaries (Continued)

treatment and management of disease. In February 1999, MPMx announced the formation of a strategic alliance in the diagnostic field with Becton, Dickinson and Company ("Becton Dickinson"). In March 1999, Becton Dickinson made an equity investment in MPMx of $15 million, representing approximately an 11% voting interest in MPMx, and paid a $3.0 million licensing fee to MPMx. The minority interest in the accompanying consolidated balance sheets represents the equity interest of Becton Dickinson in MPMx as of December 31, 1999 and the minority interest in the accompanying consolidated statements of operations includes the minority stockholder's interest in the net profit of MPMx for the year ended December 31, 1999. All intercompany transactions with this subsidiary have been eliminated in consolidation.

[4] LeukoSite Merger

On December 22, 1999, the Company acquired LeukoSite, Inc. ("LeukoSite") for an aggregate purchase price of $550.4 million primarily consisting of 6,676,933 shares of Common Stock and 884,087 shares of Common Stock issuable upon the exercise of LeukoSite options and warrants. The value of the common stock issued in connection with this merger was calculated using a fair value of $74.52 per share. This per share fair value represents the average closing price of the Company's common stock on the date the merger was announced. Common stock issuable upon exercise of LeukoSite options and warrants was assigned a fair value using the Black-Scholes method. The transaction has been recorded as a purchase for accounting purposes and the consolidated financial statements include LeukoSite's operating results from the date of the acquisition. The purchase price has been allocated to the assets purchased and liabilities assumed based upon their respective fair values, with the excess of the purchase price over the estimated fair market value of net tangible assets allocated to specific intangible assets and goodwill as follows:

(In Thousands)	
Goodwill	$159,080
Assembled workforce	2,920
Core technology	18,712
In-process research and development	350,503
Total Allocated to Intangibles	$531,215

Amounts allocated to goodwill, assembled workforce, and core technology are being amortized on a straight-line basis over a period of four years. The 1999 amortization expense related to these items was $1.1 million. The Company incurred a nonrecurring charge to operations of $350.5 million for acquired in-process research and development. The valuation of acquired in-process research and development represents the estimated fair value related to incomplete projects that, at the time of the acquisition, had no alternative future use and for which technological feasibility had not been established.

The cost approach was used to value assembled workforce. This approach establishes the fair value of an asset by calculating the recruiting and loss of productivity costs avoided by obtaining a pre-existent, trained, and fully efficient team. To calculate avoided recruiting costs, a unit cost for hiring an employee equivalent to each of those transferred to the Company was calculated and applied to each

[4] LeukoSite Merger (Continued)

employee acquired. The avoided loss in productivity was calculated by quantifying the time required for an employee to reach full productivity and applying that amount to each employee's total average cost.

The income approach was used to establish the fair values of core technology and in-process research and development. This approach establishes the fair value of an asset by estimating the after-tax cash flows attributable to the asset over its useful life and then discounting these after-tax cash flows back to a present value. The discounting process uses a rate of return commensurate with the time value of money and investment risk factors. Accordingly, for the purpose of establishing the fair value of core technology and in-process research and development, revenues for each future period were estimated, along with costs, expenses, taxes and other charges. Revenue estimates were based on estimates of relevant market sizes and growth factors, expected trends in technology and the nature and expected timing of new product introductions by the Company and its competitors.

With respect to the value of purchased research and development, the Company considered, among other factors, the research and development project's stage of completion, the complexity of the work completed to date, the costs already incurred, the projected costs to complete, the contribution of core technologies and other acquired assets, the projected date to market and the estimated useful life. The respective after-tax cash flows were then discounted back to present value using a risk-adjusted discount rate. The discount rates used in the LeukoSite analysis ranged from 19% to 23¼%, depending upon the risk profile of the asset.

The most significant purchased research and development projects that were in-process at the date of the acquisition consisted of a chemotherapeutic agent, a humanized monoclonal antibody for oncology and non-oncology indications, and 10 molecules in preclinical development. In aggregate these projects represent approximately 83% of the in-process value. The chemotherapeutic agent represents approximately 39% of the in-process research and development value. Key assumptions used in the analysis of the chemotherapeutic agent included gross margins of 95% and a discount rate of 22%. The chemotherapeutic agent is a new class of small molecules that acts by inhibiting the proteasome, the complex of a cell which regulates the breakdown of proteins that are critical for cell proliferation. As of the date of the acquisition, the project was expected to be completed and commercially available in the U.S. in 2006, with an estimated cost to complete of approximately $15 to $20 million.

The humanized monoclonal antibody represents approximately 20% of the in-process research and development value. Key assumptions used in the analysis of this project included gross margins of 100%, as revenue is royalty based, and a discount rate of 19%. The primary indication for this humanized monoclonal antibody relates to the treatment of refractory chronic lymphocytic leukemia. The antibody works by binding to an antigen found on leukemia cells, thus triggering their destruction. As of the date of the acquisition, the BLA for the treatment of refractory chronic lymphocytic leukemia was expected to be completed by the end of 1999 and the product commercially available in the U.S. in 2000. The clinical trials for the other indications for the humanized monoclonal antibody are expected to be completed and products commercially available in the U.S. between 2003 and 2004. As the BLA was near completion as of the acquisition date and the clinical trials for the other indications build substantially on work already performed, the estimated cost to complete these projects is not considered significant.

The portfolio of molecules in preclinical development represents approximately 24% of the in-process research and development value. As these products are expected to be partnered, revenue will

[4] LeukoSite Merger (Continued)

be royalty based. Therefore, gross margins of 100% were used in the analysis. The discount rate used in valuing the portfolio of preclinical molecules was 23¼%. Molecules in preclinical development relate primarily to treatments for inflammatory and autoimmune conditions and diseases, as well as treatments for asthma and allergies. Of the ten molecules in the preclinical portfolio, the first molecules are expected to be completed and commercially available in the U.S. in 2005 with the remaining molecules expected to be completed and commercially available in the U.S. between 2006 and 2008. The estimated cost to complete all projects in preclinical development is approximately $40 to $45 million.

The major risk associated with the timely completion and commercialization of these products is the ability to confirm the safety and efficacy of the technology based on the data of long-term clinical trials. If these projects are not successfully developed, future results of operations of the Company may be adversely affected. Additionally, the value of the other intangible assets acquired may become impaired.

The Company believes that the assumptions used to value the acquired intangibles were reasonable at the time of the acquisition. No assurance can be given, however, that the underlying assumptions used to estimate expected project revenues, development costs or profitability, or the events associated with such projects, will transpire as estimated. For these reasons, among others, actual results may vary from the projected results.

The following unaudited pro forma consolidated results of operations have been prepared as if the acquisition of LeukoSite had occurred as of January 1, 1998:

Year ended December 31, (in thousands, except per share amounts)	1999	1998
Pro Forma:		
Revenues under strategic alliances	$198,150	$147,266
Cost and expenses	278,401	203,532
Net loss	$(80,251)	$(56,266)
Net loss per share	$ (1.87)	$ (1.52)
Shares used in calculating net loss per share	42,866	36,896

The pro forma net loss and net loss per share amounts for each period above exclude the acquired in-process research and development charge. The pro forma consolidated results do not purport to be indicative of results that would have occurred had the acquisition been in effect for the periods presented, nor do they purport to be indicative of the results that will be obtained in the future.

[5] Revenues—Strategic Alliances

The Company has formed strategic alliances with major participants in marketplaces where its discovery expertise and technology platform are applicable. These agreements include alliances based on the transfer of the Company's technology platform, alliances which combine technology transfer with a focus on a specific disease or therapeutic approach, and disease-focused programs under which the Company conducts research funded by its partners. The Company's disease-based alliances and alliances which combine technology-transfer with a disease focus are generally structured as research

[5] Revenues—Strategic Alliances (Continued)

collaborations. Under these arrangements, the Company performs research in a specific disease area aimed at discoveries leading to novel pharmaceutical (small molecule) products. These alliances generally provide research funding over an initial period, with renewal provisions, which vary by agreement. Under these agreements, the Company's partners are required to make additional payments upon the achievement of specific research and product development milestones, and will pay royalties or in some cases profit-sharing payments to the Company based upon any product sales resulting from the collaboration.

Significant Alliances Beginning in 1999

On February 22, 1999, MPMx and Becton, Dickinson and Company ("Becton Dickinson") formed a strategic alliance in the diagnostic field. The five-year, genomics-based research collaboration focuses on several areas of oncology. Under the alliance, MPMx has agreed to undertake a research program to identify genetic markers and related assays that may be used to develop diagnostic products for several types of cancer. Becton Dickinson has agreed to manufacture and market any products that result from the research of MPMx, and MPMx will receive a royalty based upon gross profits from any related product sales. On March 31, 1999, Becton Dickinson made an equity investment in MPMx of $15.0 million, representing approximately an 11% voting interest in MPMx, and paid a $3.0 million licensing fee to MPMx. Becton Dickinson has agreed to pay MPMx up to $51.5 million in research funding and additional annual license fees, provided the alliance continues for the full five-year term. Becton Dickinson has agreed to pay milestones and royalties to MPMx in connection with the commercialization and sale of any products developed through the alliance.

Through its merger with LeukoSite, the Company became a party to a joint venture agreement with ILEX Oncology, Inc. (ILEX), to form L&I Partners, L.P. (L&I), for the purpose of developing and commercializing the CAMPATH® monoclonal antibody product. In August 1999, L&I, the joint venture, and Schering AG entered into a distribution and development agreement which grants Schering AG exclusive marketing and distribution rights to the CAMPATH® product in the U.S., Europe and the rest of the world except Japan and East Asia, where L&I has retained rights. In the United States, Berlex Laboratories, Inc., Schering's U.S. affiliate, and L&I will share in the profits from the sale of the CAMPATH® product. On sales made in the rest of the territory, Schering AG has agreed to pay royalties equivalent to the rate of profit sharing expected in the U.S. Under the terms of the agreement, Schering has agreed to make payments of up to $30 million for rights to the CAMPATH® product upon the achievement of certain regulatory milestones. The joint venture currently intends to use these funds to pay for ongoing development activity. In December 1999, the Company and ILEX submitted a Biologics License Application (BLA) to the United States Food and Drug Administration seeking marketing approval of the CAMPATH® product. The Company accounts for its investment in the joint venture under the equity method of accounting and records its share of the income or loss in other income (expense). The Company is reimbursed by the joint venture for certain costs incurred on behalf of the joint venture; these amounts have been recorded as revenue by the Company.

Significant Alliances Beginning in 1998

In September 1998, the Company entered into a strategic alliance with Bayer AG ("Bayer"). In November 1998, Bayer made an equity investment of $96.6 million for approximately 4.96 million

[5] Revenues—Strategic Alliances (Continued)

shares of Millennium common stock. The primary goal of the alliance is for the Company to supply 225 drug targets to Bayer over a period of five years. These targets will be identified as relevant for cardiovascular disease, areas of oncology not covered by Millennium's alliance with Lilly, osteoporosis, pain, liver fibrosis, hematology and viral infections. Future anticipated payments over the full alliance term include $219 million of ongoing license and research program funding, as well as a potential of up to $116 million of performance payments for delivery of targets. Bayer has the right to cancel the agreement after two and three years if certain minimum target delivery objectives are not met. Millennium realized $82.5 million in revenues associated with license fees and research program funding in 1999, and $33.4 million in revenues in the form of an upfront payment in 1998.

Significant Alliances Beginning in 1997 and Earlier

In October 1997, the Company entered into a technology transfer alliance through a collaborative agreement with Monsanto Company (''Monsanto''). Under this agreement, the Company granted to Monsanto exclusive rights to its technologies in the field of plant agriculture, as well as a nonexclusive license to its technologies outside the plant agriculture field. The Company has agreed to collaborate exclusively with Monsanto in the application of those technologies through the establishment of a subsidiary wholly owned by Monsanto. Monsanto agreed to pay $118 million in licensing and technology transfer fees over the five-year term of the agreement. Monsanto may also pay the Company up to $100 million over five years, contingent upon the achievement of mutually agreed-upon research objectives. Millennium may also receive royalty payments from the sale of products, if any, originating from the research conducted by the Monsanto subsidiary. Millennium realized $36.4 million and $38.2 million in revenues associated with technology transfer and license fees, achievement of mutually agreed-upon research objectives, and administrative services under the agreement in 1999 and 1998, respectively, and $38.0 million in revenues in the form of an up-front payment in 1997.

In July 1996, the Company entered into a strategic alliance with AHP to discover and develop targets and assays to identify and develop small molecule drugs and vaccines for treatment and prevention of disorders of the central nervous system. In addition, this agreement provides for the license and transfer of certain technology to AHP. If certain specified research objectives are not met, AHP may terminate the agreement in September of 2000 or 2001. In August 1999, the Company extended its collaboration in the area of central nervous system disorders for at least an additional two years.

[6] Marketable Securities

Marketable securities consist of high-grade corporate bonds, which are carried at fair value, with the unrealized gains and losses reported in a separate component of stockholders' equity. There have been no realized gains or losses on sales of any securities in 1999, 1998 or 1997.

The amortized cost and estimated fair value of debt securities at December 31, by contractual maturity, are shown below ($ in thousands):

	1999		1998	
	Cost	Estimated Fair Value	Cost	Estimated Fair Value
Due in one year or less	$ 64,918	$ 64,910	$37,406	$37,435
Due in one year to two years	140,762	140,031	15,245	15,245
	$205,680	$204,941	$52,651	$52,680

[7] Property and Equipment

Property and equipment consists of the following at December 31 ($ in thousands):

	1999	1998
Equipment	$77,094	$52,921
Leasehold improvements and construction in progress	24,116	9,779
	101,210	62,700
Less accumulated depreciation and amortization	41,667	24,530
	$59,543	$38,170

[8] Commitments

Lease Commitments

The Company conducts the majority of its operations in leased facilities with leased equipment. At December 31, 1999 and 1998, respectively, the Company has capitalized leased equipment totaling $59.2 million and $46.4 million, with related accumulated amortization of $29.2 million and $21.2 million. Amortization expense related to capitalized leased equipment is included in depreciation expense.

The Company leases its laboratory and office space under operating lease agreements with various terms and renewal options, including major facilities with lease expirations in 2003, 2013 and 2014. In addition to minimum lease commitments, these lease agreements require the Company to pay its pro rata share of property taxes and building operating expenses. At December 31, 1999, the Company has pledged $3.1 million of marketable securities as security for one letter of credit for the same amount with the purpose of securing one of the leased facilities. In addition, approximately $8.0 million is being held as a security deposit on another one of the leased facilities.

At December 31, 1999, future minimum commitments under leases with noncancelable terms of more than one year are as follows ($ in thousands):

	Capital Leases	Operating Leases
Year:		
2000	$13,325	$ 17,991
2001	13,389	17,122
2002	11,444	15,627
2003	5,777	14,358
2004	1,873	10,719
Thereafter	—	86,905
Total	45,808	$162,722
Less amount representing interest	7,352	
Present value of minimum lease payments	38,456	
Less current portion of capital lease obligations	10,968	
Capital lease obligations	$27,488	

Total rent expense was $15.1 million in 1999, $8.5 million in 1998, and $4.2 million in 1997. Sublease rental income in the amount of $0.5 million was recorded in 1999. Interest paid under all financing and leasing arrangements during 1999, 1998, and 1997 approximated interest expense.

External Collaborations

The Company funds research efforts of various academic collaborators in connection with its research and development programs. Total future fixed commitments under these agreements are approximately $5.7 million in 2000, $4.3 million in 2001 and $1.3 million in 2002.

[9] Stockholders' Equity

Preferred Stock

The Company has 5,000,000 authorized shares of Preferred Stock, $0.001 par value, issuable in one or more series, each of such series to have such rights and preferences, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, as shall be determined by the Board of Directors.

Common Stock Warrants

At December 31, 1999, the Company has outstanding exercisable warrants to purchase 351,550 shares of Common Stock with a weighted-average exercise price of $14.39 per share, which expire through 2007.

Stock Option Plans

The 1993 Incentive Stock Plan (the 1993 Plan) allows for the granting of incentive and nonstatutory options to purchase up to 5,400,000 shares of Common Stock. Incentive options granted to employees generally vest over a four-year period. Nonstatutory options granted to consultants and other nonemployees generally vest over the period of service to the Company. In December 1995, the Company amended the terms of outstanding option agreements to allow option holders the right to immediately exercise outstanding options, with the subsequent share issuances being subject to a repurchase option by the Company under certain conditions according to the original option vesting schedule and exercise price. At December 31, 1999, 19,881 shares issued under the 1993 Plan are subject to the Company's repurchase option.

The 1996 Equity Incentive Plan (the 1996 Plan) is substantially consistent with the terms of the 1993 Plan and, as amended, provides for the granting of options to purchase 5,600,000 shares of Common Stock.

The 1996 Director Option Plan (the Director Plan) provides that, upon adoption, each then-eligible nonemployee director be granted a nonstatutory option to purchase 20,000 shares of Common Stock. Thereafter, each new nonemployee director will be granted a nonstatutory option to purchase 30,000 shares of Common Stock upon election to the Board of Directors. Upon completion of the vesting of each option grant under the Director Plan, each nonemployee director will be granted a new nonstatutory option to purchase 20,000 shares of Common Stock. All options will be issued at the then fair market value of the Common Stock, vest ratably over four years and expire ten years after date of grant. A total of 250,000 shares of Common Stock have been reserved for issuance under the Director Plan.

Under the Employee Stock Purchase Plan (the Stock Purchase Plan), eligible employees may purchase Common Stock at a price per share equal to 85% of the lower of the fair market value of the Common Stock at the beginning or end of each offering period. Participation in the offering is limited to 10% of the employee's compensation or $25,000 in any calendar year. The first offering period began on October 1, 1996. A total of 650,000 shares of Common Stock have been reserved for issuance under the Purchase Plan as amended. At December 31, 1999, subscriptions were outstanding for an estimated 14,000 shares at $56.68 per share.

[9] Stockholders' Equity (Continued)

The 1997 Equity Incentive Plan (the 1997 Plan), as amended, provides for the granting of options to purchase 4,000,000 shares of Common Stock. The terms and conditions of the 1997 Plan are substantially consistent with those of the 1993 Plan and the 1996 Plan.

In connection with the merger of MBio into the Company, MBio's 1997 Equity Incentive Plan (the MBio 1997 Plan) was assumed by Millennium. The MBio 1997 Plan, as assumed, allows for the granting of incentive and nonstatutory options to purchase up to 320,608 shares of common stock of MPI.

In December 1999, in connection with the merger of LeukoSite and the Company, Millennium assumed the LeukoSite 1993 Stock Option Plan. As assumed, the plan allows for the granting of incentive and nonstatutory options to purchase up to 891,826 shares of Common Stock of Millennium

Options granted to employees generally vest over a four-year period. Options granted to consultants and other nonemployees generally vest over the period of service.

In 1994, the Company granted its chief executive officer an option to purchase 533,364 shares of Common Stock for $0.30 per share. In connection with the grant, the Company agreed to provide a loan of up to $267,000 at 7% per annum upon option exercise. In November 1995, the officer exercised this option. The Company made the loan and issued the Common Stock, subject to a repurchase option that lapsed over four years. The loan and related interest, secured by a pledge of the shares issued, were forgiven ratably over 48 months and has now been forgiven in full.

During 1995 and 1996, the Company granted options to purchase 1,580,682 shares of Common Stock at exercise prices below the deemed fair value for accounting purposes of the stock options at the date of grant. The Company recorded an increase to additional paid-in capital and a corresponding charge to deferred compensation in the amount of approximately $3.5 million to recognize the aggregate difference between such deemed fair value and the exercise price. The deferred compensation is being amortized over the option vesting period of four years.

During 1999, MBio granted options to purchase 76,180 shares of MBio Common Stock at exercise prices below the deemed fair value for accounting purposes of the stock options at the date of the grant. These options were converted to 14,947 options to purchase common stock of Millennium in connection with the merger of MBio and the Company. The Company recorded an increase to additional paid-in capital and a corresponding charge to deferred compensation in the amount of approximately $1.1 million to recognize the aggregate difference between such deemed fair value and the exercise price. The deferred compensation is being amortized over the option vesting period of four years.

[9] Stockholders' Equity (Continued)

The following table presents the combined activity of the 1993 Plan, 1996 Plan, 1997 Plan, the LeukoSite Plan, the MBio 1997 Plan and the Director Plan for the years ended December 31, 1999, 1998 and 1997:

	1999		1998		1997	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Outstanding at January 1	6,113,195	$15.13	5,463,635	$12.92	2,762,156	$9.19
Granted	3,297,156	43.72	1,897,365	18.77	3,436,163	14.79
Exercised	(2,138,464)	15.15	(693,618)	5.85	(338,903)	3.46
Canceled	(404,728)	16.56	(554,187)	17.35	(395,781)	11.49
Outstanding at December 31	6,867,159	28.78	6,113,195	15.13	5,463,635	12.92
Options exercisable at December 31	2,574,440	$16.46	2,435,654	11.51	1,821,654	$5.91

The weighted-average per share fair value of options granted during 1999, 1998, and 1997 was $36.40, $10.96 and $14.79, respectively

The following table presents weighted-average price and life information about significant option groups outstanding at December 31, 1999 for the above plans:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number	Weighted-Average Remaining Contractual Life (Yrs.)	Weighted-Average Exercise Price	Number	Weighted-Average Exercise Price
$ 0.10—$ 13.62	829,847	6.10	$ 4.91	643,527	$ 3.66
13.87— 16.50	1,028,441	7.46	15.54	515,540	15.44
16.58— 18.00	720,396	7.73	17.23	334,131	17.07
18.04— 19.62	985,223	7.91	19.04	407,811	19.04
19.64— 25.89	790,621	8.25	21.57	367,744	22.25
26.18— 31.25	391,218	9.23	29.70	121,621	28.22
32.50— 32.50	736,879	9.23	32.50	116,147	32.50
34.50— 62.50	727,192	9.51	46.16	55,034	40.22
65.00— 121.59	562,277	9.86	86.43	12,382	75.33
$122.00—$122.00	95,065	10.00	$122.00	503	$122.00
	6,867,159			2,574,440	

At December 31, 1999, 7,208,903 shares of Common Stock were reserved for issuance upon exercise of stock options and warrants.

The MPMx 1997 Equity Incentive Plan (the MPMx Plan), as amended, allows for the granting of incentive and nonstatutory options to purchase up to 1,917,800 shares of common stock of MPMx.

[9] Stockholders' Equity (Continued)

The following table presents the activity of the MPMx 1997 Plan for the years ended December 31, 1999 and 1998. Activity for 1997, consisting entirely of stock option grants, is reflected in the outstanding balance at January 1, 1998:

	1999		1998	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Outstanding at January 1	136,640	$0.05	773,000	$0.05
Granted	898,380	0.44	255,750	0.05
Exercised	(549,497)	0.25	(873,459)	0.05
Canceled	(45,905)	0.23	(18,651)	0.05
Outstanding at December 31	439,618	0.57	136,640	0.05
Options exercisable at December 31	439,618	$0.57	136,640	$0.05

The following table presents weighted-average price and life information about significant option groups outstanding at December 31, 1999 for the MPMx plan:

	Options Outstanding and Exercisable		
Exercise Prices	Number	Weighted-Average Remaining Contractual Life (Yrs.)	Weighted-Average Exercise Price
$0.05—$0.05	227,160	8.78	$.05
.90— 0.90	187,858	9.38	.90
2.00— 2.00	20,950	9.91	2.00
$8.00—$8.00	3,650	9.96	8.00
	439,618	9.10	$.57

At December 31, 1999, 559,601 shares of Common Stock in MPMx were reserved for issuance upon exercise of stock options.

SFAS No. 123 Disclosures

Pursuant to the requirements of SFAS No. 123, the following are the pro forma consolidated net income (loss) and consolidated net income (loss) per share for 1999, 1998 and 1997 as if the

[9] Stockholders' Equity (Continued)

compensation cost for the stock option and stock purchase plans had been determined based on the fair value at the grant date for grants in 1999, 1998 and 1997 (in thousands, except per share amounts):

	1999		1998		1997	
	As Reported	Pro Forma	As Reported	Pro Forma	As Reported	Pro Forma
Net income (loss)	$(351,960)	$(400,972)	$10,338	$(6,782)	$(81,222)	$(94,668)
Basic net income (loss) per share	(10.45)	(11.03)	0.34	(0.22)	(2.87)	(3.34)
Diluted net income (loss) per share	(10.45)	(11.03)	0.33	(0.22)	(2.87)	(3.34)

The fair value of stock options and common shares issued pursuant to the Stock Option and Stock Purchase Plans at the date of grant were estimated using the Black-Scholes model with the following weighted-average assumptions:

	Stock Options			Stock Purchase Plan		
	1999	1998	1997	1999	1998	1997
Expected life (years)	4.4	4.4	4.5	0.5	0.5	0.5
Interest rate	5.59%	5.36%	6.12%	4.83%	5.15%	6.14%
Volatility	.67	.70	.70	.67	.70	.70

The Company has never declared dividends on any of its capital stock and does not expect to do so in the foreseeable future.

The effects on 1997, 1998 and 1999 pro forma net income (loss) and net income (loss) per share of expensing the estimated fair value of stock options and common shares issued pursuant to the Stock Option and Stock Purchase Plans are not necessarily representative of the effects on reported results of operations for future years as the periods presented include only two, three and four years, respectively, of option grants and share purchases under the Company's plans.

[10] Net Income (Loss) Per Share

Basic net loss per share for 1999 and 1997 is computed using the weighted-average number of common shares outstanding. Net income per share for 1998 is computed using the weighted-average number of common shares and dilutive-equivalent shares from stock options and warrants using the treasury stock method. At December 31, 1999 and 1997, diluted net loss per share is the same as basic net loss per share, as the inclusion of outstanding common stock options and warrants would be antidilutive. At December 31, 1998, the difference between basic and diluted shares used in the computation of earnings per share is 1,189,133 weighted-average common equivalent shares resulting from outstanding common stock options and warrants. The 1999 net loss attributable to common stockholders is calculated by including the deduction of a deemed preferred stock dividend relating to

[10] Net Income (Loss) Per Share (Continued)

the excess of the fair value of the common stock over the carrying value of the MBio preferred stock acquired from Lilly.

Year ended December 31, (in thousands except per share amounts)	1999	1998	1997
Net income (loss)	$(351,960)	$10,338	$(81,222)
Deemed preferred stock dividend	(27,944)	—	—
Net loss attributable to common stockholders	$(379,904)	$10,338	$(81,222)
Basic net income (loss) per share	$ (10.45)	$ 0.34	$ (2.87)
Shares used in computing basic Net Income (loss) per share	36,353	30,319	28,323
Diluted net income (loss) per share	$ (10.45)	$ 0.33	$ (2.87)
Shares used in computing Diluted net income (loss) per share	36,353	31,508	28,323

[11] Income Taxes

The difference between the Company's "expected" tax provision (benefit), as computed by applying the U.S. federal corporate tax rate of 34% to income (loss) before minority interest and provision for income taxes, and actual tax is reconciled in the following chart ($ in thousands):

	1999	1998	1997
Loss before minority interest	$(353,940)	$(3,841)	$(84,632)
Expected tax benefit at 34%	$(120,340)	$(1,306)	$(28,774)
State tax benefit net of federal benefit	11	(231)	(5,078)
Write off of purchased research and development	119,171	—	33,520
Amortization of goodwill	1,298	1,081	958
Change in valuation allowance for deferred tax assets allocated to tax expense	(543)	(458)	(1,019)
Stock compensation expense	285	788	361
Other	118	126	32
Income tax provision	$ —	$ —	$ —

At December 31, 1999, the Company has unused net operating loss carryforwards of approximately $178 million available to reduce federal taxable income and $142.3 million available to reduce state taxable income. The federal net operating loss will expire beginning in 2004 and the state operating loss will begin to expire in 2000. The Company also has federal and state research tax credits of approximately $22.2 million available to offset federal and state income taxes, both of which expire beginning 2005. Due to the degree of uncertainty related to the ultimate use of the loss carryforwards and tax credits, the Company has fully reserved these tax benefits. No income tax payments were made in 1999 or 1998.

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax

[11] Income Taxes (Continued)

purposes. Significant components of the Company's deferred tax assets as of December 31 are as follows ($ in thousands):

	1999	1998	1997
Net operating loss carryforwards	$ 70,747	$ 6,556	$ 5,758
Research and development tax credit carryforwards	22,202	12,720	6,422
Capitalized research costs	21,101	5,875	7,640
Property and other intangible assets	5,929	3,310	1,315
Other	2,570	1,739	1,255
Total deferred tax assets	122,549	30,200	22,390
Valuation allowance	(122,549)	(30,200)	(22,390)
Net deferred tax assets	$ —	$ —	$ —

The valuation allowance increased by $92.3 million during 1999 due primarily to the increase in research and development tax credits, net operating loss carryforwards and the addition of various deferred tax assets related to the LeukoSite merger offset by the utilization of net operating loss carryforwards. The valuation allowance increased by $7.8 million during 1998 due primarily to the increase in research and development tax credits and net operating loss carryforwards. The deferred tax assets acquired from LeukoSite and ChemGenics are subject to review and possible adjustments by the Internal Revenue Service and may be limited due to the change in ownership provisions of the Internal Revenue Code.

Any subsequently recognized tax benefits relating to the valuation allowance for deferred tax assets as of December 31, 1999 would be allocated as follows ($ in thousands):

Reported in the statement of operations	$ 26,638
Reported as a decrease to goodwill	58,777
Reported in additional paid-in capital	37,134
	$122,549

[12] Subsequent Event

In January 2000, the Company completed a sale, pursuant to Rule 144A of the Securities Act of 1933, of $400 million of 5.5% Convertible Subordinated Notes due January 15, 2007. The Notes are convertible into Millennium common stock at any time prior to maturity at a price equal to $168.28 per share, subject to adjustment, unless previously repurchased or redeemed by us under certain circumstances. Under the terms of the Notes, the Company will be required to make semi-annual interest payments on the outstanding principal balance of Notes on January 15th and July 15th of each year.

[13] Quarterly Financial Information (Unaudited)

	4Q99	3Q99	2Q99	1Q99	4Q98	3Q98	2Q98	1Q98
Statement of Operations Data: (in thousands, except per share amounts)								
Revenue under strategic alliances	$ 55,098	$40,316	$47,273	$40,992	$57,963	$26,440	$28,236	$21,043
Costs and expenses:								
Research and development	46,601	38,359	39,484	35,433	33,711	30,014	28,036	22,429
General and administrative	8,989	8,279	8,502	7,126	6,491	6,090	5,927	5,911
Acquired in-process R&D	350,503	—	—	—	—	—	—	—
Amortization of intangible assets	1,789	676	675	676	675	676	676	675
	407,882	47,314	48,661	43,235	40,877	36,780	34,639	29,015
Income (loss) from operations	(352,784)	(6,998)	(1,388)	(2,243)	17,086	(10,340)	(6,403)	(7,972)
Interest income (expense), net	2,441	2,612	2,358	2,062	1,417	709	860	802
Minority interest	(224)	(83)	34	2,253	4,675	3,418	3,342	2,744
Net income (loss)	$(350,567)	$(4,469)	$ 1,004	$ 2,072	$23,178	$(6,213)	$(2,201)	$(4,426)
Basic net income (loss) per share	$ (9.99)	$ (0.12)	$ 0.03	$ 0.06	$ 0.70	$ (0.21)	$ (0.07)	$ (0.15)
Shares used in computing basic net income (loss) per share	37,883	36,370	35,819	35,315	32,900	29,552	29,501	29,262
Diluted net income (loss) per share	$ (9.99)	$ (0.12)	$ 0.03	$ 0.05	$ 0.68	$ (0.21)	$ (0.07)	$ (0.15)
Shares used in computing diluted net income (loss) per share	37,883	36,370	38,491	38,193	34,216	29,552	29,501	29,262

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

During the Company's two most recent fiscal years there have been no disagreements with our independent accountants on accounting and financial disclosure matters.

PART III

Item 10. DIRECTORS AND EXECUTIVE OFFICERS

Except as set forth below, the information required by this item is incorporated by reference from the information under the captions "Election of Directors" and "Section 16(a) Beneficial Ownership Reporting Compliance" contained in our Proxy Statement to be filed with the Securities and Exchange Commission in connection with the solicitation of proxies for the Company's 2000 Annual Meeting of Stockholders to be held on April 12, 2000 (the "Proxy Statement").

Certain required information about Executive Officers of the Company is contained in Part I of this Annual Report on Form 10-K under the heading "Executive Officers of the Company."

Item 11. EXECUTIVE COMPENSATION

The information required regarding executive compensation is incorporated by reference from the information under the captions "Election of Directors—Director Compensation," "Compensation of Executive Officers," "Compensation Committee Report on Executive Compensation" and "Compensation Committee Interlocks and Insider Participation" contained in the Proxy Statement.

Item 12. STOCK OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this item is incorporated by reference from the information under the caption "Stock Ownership Information" contained in the Proxy Statement.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this item is incorporated by reference from the information contained under the caption "Certain Relationships and Related Transactions" contained in the Proxy Statement.

PART IV

Item 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES, AND REPORTS ON FORM 8-K

(a) The following documents are included as part of this Annual Report on Form 10-K.

1. Financial Statements:

2. All schedules are omitted as the information required is inapplicable or the information is presented in the consolidated financial statements or the related notes.

3. The Exhibits listed in the Exhibit Index immediately preceding the Exhibits are filed as a part of this Annual Report on Form 10-K.

(b) The following Current Reports on Form 8-K were filed by the Company since October 1, 1999:

1. A Current Report on Form 8-K was filed with the Securities and Exchange Commission on October 21, 1999 to report, pursuant to Item 5, that (i) the Company entered into an Agreement and Plan of Merger with its subsidiary, Millennium BioTherapeutics, Inc., (ii) the Company entered into a Share Exchange Agreement with Eli Lilly and Company and (iii) the Company signed an Agreement and Plan of Merger with LeukoSite, Inc. and ANM, Inc. a wholly-owned subsidiary of the Company. An amendment to this Current Report was filed on October 29, 1999.

2. A Current Report on Form 8-K was filed with the Securities and Exchange Commission on January 6, 2000 to report, pursuant to Item 5, the completion of the acquisition of LeukoSite, Inc. Amendments to this Current Report were filed on January 6, 2000 and January 27, 2000.

3. A Current Report on Form 8-K was filed with the Securities and Exchange Commission on January 11, 2000 to report, pursuant to Item 5, the Company's intent to offer Convertible Subordinated Notes due January 15, 2007.

4. A Current Report on Form 8-K was filed with the Securities and Exchange Commission on January 19, 2000 to report, pursuant to Item 5, the sale of Convertible Subordinated Notes.

5. A Current Report on Form 8-K was filed with the Securities and Exchange Commission on February 9, 2000 to report, pursuant to Item 5, that the date of the Annual Meeting of Stockholders is April 12, 2000 and that the close of business on February 20, 2000 is the date by which a stockholder wishing to present a proposal before the meeting must give notice to the Company.

The following trademarks of the Company are mentioned in this Annual Report on Form 10-K: MILLENNIUM, MILLENNIUM PHARMACEUTICALS, MILLENNIUM PREDICTIVE MEDICINE, MILLENNIUM BIOTHERAPEUTICS, MBIO, MPMX, LEUKOSITE, CAMPATH, DIAGNOMICS and MELASTATIN. Other trademarks used in this Annual Report on Form 10-K are the property of their respective owners.

SIGNATURES

In accordance with the requirements of the Section 13 or 15(d) of the Securities Exchange Act of 1934, the undersigned, duly authorized officers of Millennium have signed this report on Millennium's behalf.

MILLENNIUM PHARMACEUTICALS, INC.

Date: February 25, 2000

By: /s/ MARK J. LEVIN
Mark J. Levin
Chief Executive Officer

In accordance with the requirements of the Securities Exchange Act of 1934, the following persons have signed this report below, on behalf of the Company, in the capacities and on the dates indicated.

Signature	Title	Date
/s/ MARK J. LEVIN Mark J. Levin	Chief Executive Officer and Director (Principal Executive Officer)	February 25, 2000
/s/ KEVIN STARR Kevin Starr	Chief Financial Officer (Principal Financial and Accounting Officer)	February 25, 2000
/s/ JOSHUA BOGER Joshua Boger	Director	February 25, 2000
/s/ EUGENE CORDES Eugene Cordes	Director	February 25, 2000
/s/ A. GRANT HEIDRICH, III A. Grant Heidrich, III	Director	February 25, 2000
/s/ RAJU KUCHERLAPATI Raju Kucherlapati	Director	February 25, 2000
/s/ ERIC S. LANDER Eric S. Lander	Director	February 25, 2000
/s/ CHRISTOPHER K. MIRABELLI Christopher K. Mirabelli	Director	February 25, 2000
/s/ STEVEN C. WHEELWRIGHT Steven C. Wheelwright	Director	February 25, 2000

Exhibit Index

The following exhibits are filed as part of this Annual Report on Form 10-K.

Exhibit No.		Description
		Articles of Incorporation and By-laws
3.1	(2)	Amended and Restated Certificate of Incorporation of the Company
3.2	(2)	Amended and Restated Bylaws of the Company
		Instruments defining the rights of security holders, including indentures
4.1	(1)	Specimen Certificate for shares of Common Stock, $.001 par value, of the Company
4.2	*	Indenture, dated as of January 20, 2000, between the Company and State Street Bank and Trust Company, as Trustee (including the form of debenture).
		Material Contracts
10.1	(4)	Form of Master Equipment Lease Financing Agreement, as amended, dated September 19, 1996 by and between the Company and GE Capital Corporation.
10.2	(5)	Amendment to Master Equipment Lease Financing Agreement dated June 16, 1997 by and between the Company and GE Capital Corporation.
10.3	*	Letter Agreement dated August 5, 1999 relating to Master Equipment Lease Financing Agreement dated September 19, 1996 by and between the Company and GE Capital Corporation.
10.4	*	Addendum to Master Equipment Lease Financing Agreement dated January 13, 2000 between the Company and GE Capital Corporation.
10.5	(1)	Lease Agreement dated August 26, 1993, as amended, by and between the Company and the Massachusetts Institute of Technology.
10.6	*	Amendments (Third, Fourth, Fifth, Seventh and Eighth) to Lease Agreement dated August 26, 1993, as amended, by and between the Company and the Massachusetts Institute of Technology.
10.7	(10)	Sixth Amendment dated January 29, 1999 to Lease Agreement dated August 26, 1993 by and between the Company and Massachusetts Institute of Technology.
10.8	(7)	Lease dated November 17, 1997 by and between the Company and FC 45/75 Sidney, Inc.
10.9	*	Amendments (First, Second and Third) to Lease dated November 17, 1997 by and between the Company and FC 45/75 Sidney, Inc.
10.10	(8)	Lease dated June 12, 1998 by and between the Company and 270 Albany Street Realty Trust.
10.11	(14)	Lease Agreement for portion of 215 First Street, Cambridge, MA dated June 8, 1994 between LeukoSite, Inc. and Robert A. Jones and K. George Najarian, as trustees for Athenaeum Realty Nominee Trust.
10.12	(8)	Lease dated June 17, 1998 by and between the Company and TransAmerica Business Credit Corporation.

Exhibit No.		Description
10.13	†(3)	CNS Research, Collaboration and License Agreement effective as of August 1, 1996 by and between American Home Products Corporation and the Company.
10.14	†(5)	Sponsored Research Agreement by and among Whitehead Institute for Biomedical Research, Affymetrix, Inc., Bristol-Myers Squibb Company and the Company dated April 28, 1997.
10.15	†(5)	Consortium Member Agreement by and among Affymetrix, Inc., Bristol-Myers Squibb Company and the Company dated April 28, 1997.
10.16	†(6)	Agreement dated October 27, 1997 by and among the Company, Monsanto Company and Cereon Genomics Inc. (formerly Monsanto Agricultural Genomics II LLC).
10.17	†(9)	Agreement dated September 22, 1998 by and between the Company and Bayer AG.
10.18	†(9)	Investment Agreement dated September 22, 1998 by and between Bayer AG and the Company.
10.19	†(9)	Registration Rights Agreement dated November 10, 1998, by and between Bayer AG and the Company.
10.20	†(13)	Agreement dated February 21, 1999 by and between Millennium Predictive Medicine, Inc. and Becton, Dickinson and Company.
10.21	(13)	Amended and Restated Rights Exchange Agreement dated February 1, 1999 between the Company and Millennium Predictive Medicine, Inc.
10.22	(13)	Technology Transfer and License Agreement dated February 1, 1999 between the Company and Millennium Predictive Medicine, Inc.
10.23	(11)	Agreement and Plan of Merger by and between the Company and Millennium BioTherapeutics, Inc. dated as of October 14, 1999.
10.24	(12)	Agreement and Plan of Merger among the Company, ANM, Inc. and LeukoSite, Inc. dated as of October 14, 1999.
10.25	†*	Supply Agreement dated as of June 4, 1999 between L&I Partners, L.P. and Boehringer Ingelheim Pharma KG.
10.26	†(14)	(a) Agreement of Limited Partnership of L&I Partners, L.P. (b) License Agreement, dated May 2, 1997, between L&I Partners, L.P. and LeukoSite, Inc.
10.27	†(15)	Development Collaboration and License Agreement, dated as of December 18, 1997, between LeukoSite, Inc. and Genentech, Inc.
10.28	†(16)	Distribution and Development Agreement dated August 24, 1999 between L&I Partners, L.P. and Schering AG.
10.29	*	Registration Rights Agreement dated January 20, 2000 between the Company and Goldman, Sachs & Co., ING Barings LLC, FleetBoston Robertson Stephens Inc., and Credit Suisse First Boston Corporation.
		Material contracts—management contracts and compensatory plans
10.30	(1)#	1996 Director Option Plan
10.31	(1)#	Agreement dated as of April 21, 1993, by and between the Company and Raju Kucherlapati

Exhibit No.		Description
10.32	(1)#	Letter Agreement dated April 14, 1994 by and between the Company and Steven H. Holtzman.
10.33	(1)#	Promissory Note dated March 15, 1996 made in favor of the Company by Steven H. Holtzman.
10.34	*#	Form of Employment Offer Letter entered into with certain executive officers of the Company, together with a schedule of parties thereto.
10.35	*#	Executive Employment Agreement with Christopher Mirabelli dated October 14, 1999 and amendment thereto dated December 21, 1999.
21	*	Subsidiaries of the Company.
23.1	*	Consent of Ernst & Young LLP, Independent Auditors.
27	*	Financial Data Schedule.

(1) Incorporated herein by reference to the Company's Registration Statement on Form S-1, as amended (File No. 333-2490).

(2) Incorporated herein by reference to the Company's 10-Q for the quarter ending March 31, 1996.

(3) Incorporated herein by reference to the Company's 10-Q for the quarter ending June 30, 1996.

(4) Incorporated herein by reference to the Company's 10-Q for the quarter ending September 30, 1996.

(5) Incorporated herein by reference to the Company's 10-Q for the quarter ending June 30, 1997.

(6) Incorporated hereby by reference to the Company's Amendment No. 1 to Current Report on Form 8-K, filed with the SEC on January 30, 1998.

(7) Incorporated herein by reference to the Company's 10-K for the fiscal year ending December 31, 1997.

(8) Incorporated herein by reference to the Company's 10-Q for the quarter ending June 30, 1998.

(9) Incorporated herein by reference to the Company's 10-Q for the quarter ending September 30, 1998.

(10) Incorporated herein by reference to the Company's 10-K for the fiscal year ending December 31, 1998

(11) Incorporated herein by reference to the Company's Registration Statement on Form S-4, as amended (File No. 333-90401)

(12) Incorporated herein by reference to the Company's Registration Statement on Form S-4, as amended (File No. 333-90403)

(13) Incorporated herein by reference to the Company's 10-Q for the quarter ending June 30, 1999.

(14) Incorporated by reference to LeukoSite's Registration Statement on Form S-1 (No. 333-30213).

(15) Incorporated by reference to LeukoSite's Current Report on Form 8-K dated January 26, 1998.

(16) Incorporated by reference to LeukoSite's Current Report on Form 8-K dated August 24, 1999.

Management contract or compensatory plan or arrangement filed as an exhibit to this Form pursuant to Items 14(a) and 14(c) of Form 10-K.

* Filed herewith.

† Confidential treatment requested as to certain portions.