

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-K

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

FOR THE FISCAL YEAR ENDED DECEMBER 31, 2000

OR

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

FOR THE TRANSITION PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_ .

COMMISSION FILE NUMBER: 0-20859

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

DELAWARE  
(STATE OR OTHER JURISDICTION OF  
INCORPORATION OR ORGANIZATION)

75-2287752  
(I.R.S. EMPLOYER  
IDENTIFICATION NO.)

230 CONSTITUTION DRIVE, MENLO PARK, CA 94025  
(ADDRESS, INCLUDING ZIP CODE, OF PRINCIPAL EXECUTIVE OFFICES)

REGISTRANT'S TELEPHONE NUMBER, INCLUDING AREA CODE: (650) 473-7700

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

SECURITIES REGISTERED PURSUANT TO SECTION 12(g) OF THE ACT:  
COMMON STOCK \$0.001 PAR VALUE

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.

As of March 5, 2001, there were 21,781,392 shares of Common Stock outstanding. The aggregate market value of voting stock held by non-affiliates of the registrant was approximately \$283,920,000 based upon the closing price of the Common Stock on March 5, 2001 on The Nasdaq National Market. Shares of Common Stock held by each officer, director and holder of five percent or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

Except for the historical information contained herein, the matters discussed in this report are forward-looking statements that involve certain risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. Potential risks and uncertainties include, without limitation, those mentioned in this report and in particular, the factors described below in Part II, Item 7, under the heading "Additional Factors That May Affect Future Results."

DOCUMENTS INCORPORATED BY REFERENCE:

DOCUMENT  
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FORM 10-K PARTS  
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Definitive 2000 Proxy Statement, to be filed within 120 days  
of December 31, 2000 (specified portions).....

III

## PART I

## ITEM 1. BUSINESS

## OVERVIEW

We are a biopharmaceutical company focused on discovering, developing and commercializing therapeutic and diagnostic products for applications in oncology and regenerative medicine, and research tools for drug discovery. Geron's product development programs are based upon three patented core technologies: telomerase, human embryonic stem cells and nuclear transfer. Telomeres are the ends of chromosomes that protect chromosomes from degradation and act as a molecular "clock" for cellular aging. Telomerase is an enzyme that restores telomere length and rewinds the molecular "clock," thereby extending the cell's ability to multiply or replicate. By activating telomerase, we seek to increase the lifespan of normal cells which have prematurely aged in the body to treat chronic degenerative diseases. Conversely, by inhibiting telomerase we hope to kill cancer cells where telomerase is abnormally turned on and to diagnose cancer by measuring telomerase activity. Human embryonic stem cells can develop and differentiate into all cells and tissues in the body. As such, they are a potential source for the manufacture of replacement cells and tissues for applications in regenerative medicine. Nuclear transfer is a method for generating human cells or whole animals from genetic material derived solely from the nucleus of a single cell obtained from a single individual. We intend to develop this technology to produce genetically matched cells that would not be rejected by the patient's immune system for use in repairing organs damaged by chronic degenerative disease.

We were incorporated in 1990 under the laws of Delaware. Our principal executive offices are located at 230 Constitution Drive, Menlo Park, California, 94025. Our telephone number is (650) 473-7700.

## TECHNOLOGY PLATFORMS

## Telomeres and Telomerase: Their role in cellular aging and cancer

Cells are the building blocks for all tissues in the human body, and cell division plays a critical role in the normal growth, maintenance and repair of human tissue. However, in the human body, cell division is a limited process. Depending on the tissue type, cells generally divide only 60 to 100 times during the course of their normal lifespan.

We and our collaborators have shown that telomeres, located at the ends of chromosomes, are key genetic elements involved in regulation of the cellular aging process. Our work has shown that each time a normal cell divides, telomeres shorten. Once telomeres reach a certain short length, cell division halts and the cell enters a state known as senescence or aging. Our collaborators have used mouse models to show that this type of cellular aging can cause numerous age-related degenerative changes in mammals. We believe that this cellular aging process, which occurs in numerous tissues throughout the human body, causes or contributes to chronic degenerative diseases and conditions including chronic liver disease, AIDS, macular degeneration (a chronic disease of the eyes often leading to vision loss), atherosclerosis (narrowing of arteries which reduces blood flow to internal organs) and impaired wound healing.

We and our collaborators have demonstrated that telomeres serve as a molecular "clock" for cellular aging and that the enzyme telomerase, when introduced into normal cells, is capable of restoring telomere length or resetting the "clock," thereby increasing the lifespan of cells without altering their normal function or causing them to become cancerous. Human telomerase, a complex enzyme, is composed of a ribonucleic acid component (RNA), also known as hTR, and a protein component, known as hTERT. In 1994, in collaboration with Dr. Carol Greider, we cloned the gene for hTR, and in 1997, in collaboration with Dr. Thomas Cech, we cloned the gene for hTERT.

Our work and that of others has shown that telomerase is not present in most normal cells and tissues, but that during tumor progression, telomerase is abnormally reactivated in all major cancer types. We have shown that unlike the mutations which cause cancer, the presence of telomerase only enables cancer cells to maintain telomere length, providing them with indefinite replicative capacity. We and others have shown in various

tumor models that inhibiting telomerase activity results in telomere shortening and therefore causes aging or death of the cancer cell.

We are working to discover and develop anti-cancer therapies based on telomerase inhibitors, oncolytic (cancer killing) viruses and telomerase vaccines. We also intend to continue to develop and commercialize products using telomerase as a marker for cancer diagnosis, prognosis, patient monitoring and screening.

**Human Embryonic Stem Cells:** A potential source for the manufacturing of replacement cells and tissues

Stem cells generally are self-renewing primitive cells that can develop into functional, differentiated cells. Human embryonic stem cells are unique because they are pluripotent, that is they can develop into all cells and tissues in the body. There are two types of human embryonic stem cells, also called hESCs: human embryonic stem cells, also known as hES cells, which were first derived by our collaborators from donated in vitro fertilized blastocysts or very early-stage embryos; and human embryonic germ cells, also known as hEG cells, which were derived from donated fetal material.

In addition to their pluripotent characteristics, hES cells express telomerase and can therefore multiply or replicate indefinitely. The ability of hES cells to divide indefinitely in the undifferentiated state without losing pluripotency is a unique characteristic that distinguishes them from all other stem cells discovered to date in humans. Other stem cells such as blood or gut stem cells express telomerase at very low levels or only periodically; they therefore age, limiting their use in research or therapeutic applications. Human embryonic stem cells also maintain a structurally normal set of chromosomes even after prolonged growth in culture. They do not, for example, have any abnormal additions, deletions or rearrangements in their chromosomal structure as is characteristic of cell lines derived from tumors or immortalized by viruses. Although not as well characterized as hES cells, we believe that hEG cells will share most of the characteristics of hES cells.

We intend to use hESC technology to

- enable the development of transplantation therapies by providing standard starting material for the manufacture of cells and tissues;
- facilitate pharmaceutical research and development practices by providing cells for screening and assigning function to newly discovered genes; and
- accelerate research in human developmental biology by identifying the genes that control human development.

**Nuclear Transfer:** A potential mechanism for generating genetically matched cells and tissues

Nuclear transfer is a method for generating human cells and whole animals whose genetic material is derived solely from the nucleus of a single cell obtained from a single individual. In this process, the nucleus containing all of the chromosomal DNA is removed, or enucleated, from the egg cell and replaced with the nucleus containing all of the chromosomal DNA from a donor somatic or non-reproductive cell. Fusion between the resulting egg cell and the donor somatic nucleus results in a new cell which gains a complete set of chromosomes derived entirely from the donor nucleus. After a brief culture period, the resulting embryo is implanted into the uterus of a female animal, where it can develop and produce the live birth of a cloned offspring. The offspring is essentially a genetic clone of the animal from which the donor nucleus was obtained.

In early 1997, Dr. Ian Wilmut and his colleagues at the Roslin Institute demonstrated with the birth of Dolly, the sheep, that the nucleus of an adult cell can be transferred to an enucleated egg to create cloned offspring. The birth of Dolly was significant because it demonstrated the ability of egg cell cytoplasm, also known as the portion of the cell outside of the nucleus, to reprogram an adult nucleus. Reprogramming enables the adult differentiated cell nucleus to express all the genes required for full embryonic development of the adult animal. Since Dolly was cloned, the technique has been used to clone mice, goats, cattle and pigs from donor cells obtained from mice, goats, cattle and pigs, respectively.

In order to complement and strengthen our technology platforms, in 1999, we acquired Roslin Bio-Med Ltd., a commercial subsidiary of the Roslin Institute which pioneered the use of nuclear transfer technology

for the creation of cloned animals. We also entered into a research collaboration with the Roslin Institute to focus on understanding the molecular mechanisms used by animal egg cell cytoplasm to reprogram adult animal cell nuclei.

A key objective of our collaboration with the Roslin Institute is to learn how to confer the reprogramming capability normally found in the egg cell cytoplasm to the cytoplasm of a somatic cell in order to eliminate reliance on harvested eggs. In this way, we believe that transplantable genetically matched cells could be derived from embryonic stem cells generated through nuclear transfer using adult cells taken from the intended transplant recipient. We believe such cells would not trigger immune rejection because they would exactly match the tissue of the transplant recipient. We intend to develop this technology to produce genetically matched cells for use in repairing organs damaged by degenerative disease.

#### COMMERCIAL OPPORTUNITIES FOR OUR TECHNOLOGY PLATFORMS

##### Oncology

Cancer is a group of diseases characterized by the uncontrolled growth and spread of abnormal cells. The American Cancer Society estimates that approximately 1.2 million cancer cases were diagnosed in the year 2000. Overall annual costs associated with cancer currently amount to \$107 billion in the United States alone. Because telomerase is detectable in more than 30 human cancer types and in over 80 percent of cancer samples studied, we believe that a telomerase inhibitor could overcome the limitations of current cancer therapies and potentially be a broadly applicable and highly specific drug treatment for cancer.

We are working to discover and develop anti-cancer therapies based on telomerase inhibitors, oncolytic (cancer killing) viruses and telomerase vaccines. We also intend to continue to develop and commercialize products using telomerase as a marker for cancer diagnosis, prognosis, patient monitoring and screening. We believe that we have achieved a dominant position in telomerase research and in telomerase intellectual property which gives us a significant advantage in the discovery and development of oncology products based on telomerase.

**Telomerase Inhibition.** Telomerase activation is necessary for most cancer cells to replicate indefinitely and thereby enable tumor growth and metastasis. One of our strategies for the development of anti-cancer therapies is to inhibit telomerase activity in cancer cells. Inhibiting telomerase activity should result in telomere shortening and therefore cause the aging and eventual death of cancer cells. Because telomerase is expressed at very low levels, if at all, in most normal cells, the telomerase inhibition therapies described below are not expected to be cytotoxic to normal cells. To produce a telomerase inhibitor for the treatment of cancer, we have focused our efforts on two approaches: template antagonists and small molecules. Both approaches have produced compounds which we believe should advance to animal studies in 2001. We and our collaborator have established research programs focused on our telomerase-inhibiting compounds with the goal of advancing an inhibitor to clinical development.

**Template Antagonists.** We have designed and synthesized a special class of short-chain nucleic acid-like molecules, also known as oligonucleotides, to target the template region, or active site, of telomerase. These oligonucleotides have demonstrated highly potent telomerase inhibitory activity at sub-nanomolar, or very low, concentrations in both biochemical assays and various cellular systems. Published research by others has shown that similar types of template antagonists inhibit the growth of malignant human glioma (brain cancer) cells in animals. Based on these promising results, we plan to continue tests of these oligonucleotides in animal models of cancer in the coming year. We hold rights to this class of oligonucleotides for telomerase inhibition, and have also developed several new oligonucleotide-based chemistries for which we have filed our own patent applications.

**Small Molecules.** Through high-throughput screening of highly diverse chemical compound libraries, we have identified classes of small molecule compounds that are telomerase inhibitors which are being further evaluated. We continue to work toward improving the specificity and potency of these small molecule compounds by modifying them chemically and testing them in cancer cells in cell culture and in animal models.

**Oncolytic Virus.** Our second anti-cancer therapeutic strategy is based on viruses which have been manipulated or engineered to have oncolytic, or cancer-killing, properties which would selectively target and destroy cancer cells. We are developing customized adenoviruses, also known as common cold viruses, that will infect and kill cancer cells which express telomerase and not infect and kill normal cells which do not express telomerase. To pursue this goal, we have cloned the region of the hTERT gene, called the promoter sequence, that is responsible for turning on or off the activity of telomerase in a cell. We have demonstrated that this promoter is turned on in telomerase-positive cancer cells, and is turned off in most normal cells.

We are using the hTERT promoter to turn on the genes which are required for the customized adenovirus to replicate within the cancer cell. Our data indicate that when tumor cells are infected with the adenovirus which contains the hTERT promoter, the virus multiplies or replicates within the cancer cells and causes the rupture and death, or lysis, of the tumor cells. When these same adenoviruses containing the hTERT promoter infect normal somatic tissue, there is no similar effect on the cells. We are currently evaluating this oncolytic virus in both local and metastatic animal tumor models. We believe that these oncolytic viruses could be used to treat many types of primary and metastatic cancers.

**Telomerase Vaccine.** Our third approach to developing an anti-cancer therapy is to create a telomerase vaccine, exploiting the fact that telomerase is present in all major cancer types but is expressed at very low levels, if at all, in most normal cells. In this approach, we deliver telomerase to special immune cells called dendritic cells which instruct the immune system to detect cells that express telomerase and kill them.

We are conducting research to confirm the safety and efficacy of dendritic cell telomerase vaccine therapies. In collaboration with scientists at Duke University, we published studies in the September 2000 issue of Nature Medicine, which demonstrate that cancer patients' immune cells can be activated with a telomerase vaccine in the laboratory to kill their own cancer cells. This technique was also effective in reducing tumors in animals. We are also developing procedures to directly immunize patients using telomerase. This direct method of vaccination would eliminate the need for manipulation of dendritic cells in culture and could potentially allow simple vaccination procedures to be available for all cancer patients.

**Cancer Diagnostics.** Telomerase is a broadly applicable and highly specific marker for cancer because it has been detected in more than 30 human cancer types and in over 80 percent of cancer samples studied. We believe that the detection of telomerase may have significant clinical utility for cancer diagnosis, prognosis, monitoring and screening. Current cancer diagnostics apply only to a single or limited number of cancer types because they rely on molecules expressed only by particular cancer types. However, telomerase-based diagnostics could potentially address a broad range of cancers.

We have developed several proprietary assays for the detection of telomerase which are based on its activity or the presence of its RNA or protein components. The first-generation assay is the Telomeric Repeat Amplification Protocol (TRAP) assay which can be used to detect telomerase activity in human tissue or cells in culture. The second generation assays detect the presence of hTR and hTERT in human tissues and body fluids. We own issued patents for the detection of telomerase activity and the components of telomerase including patents for the TRAP assay and diagnostic methods based on telomerase detection. To date, our licensees have commercialized 13 research-use-only kits that incorporate our technology.

We are working with Roche Diagnostics to develop the clinical potential of our telomerase detection technology. Research data shows that an assay for telomerase is a more sensitive and specific test for screening bladder cancer than other commercially available tests. We believe that these and other data support the clinical application of telomerase assays in diagnosis, staging, monitoring and screening for bladder, cervical, prostate and other cancers.

#### Predictive Toxicology and Screening

**Genomics and Human Developmental Biology.** The first phase of the private and publicly funded programs to complete the sequencing of the human genome is now accomplished. Despite this catalogue of human gene sequences, little is known about the structure of most genes, when and in what cells they are

expressed or how they function. The next major hurdle is to determine the function of these genes and to use this information to develop new diagnostic and therapeutic approaches to treat many diseases.

Embryonic stem cells are especially suitable in the functional analysis of genes involved in cell proliferation, differentiation and metabolism. The effects of adding or knocking out specific genes in hESCs can be monitored, providing evidence for the function of the gene on a particular proliferation or differentiation process. In collaboration with Celera Genomics, we are generating gene libraries from hESCs and sequencing them to identify genes important for human development. We are simultaneously developing screening procedures using hESCs to identify the function of multiple developmental genes. Identification of the function of developmental genes will facilitate the selection of genes that would be good targets for drug discovery.

Immortalized Cells for Research. Scientists study specific cells from targeted tissues in order to understand their biological function. In these studies, cells are usually isolated from tissue and maintained in culture. The progressive changes in biological activity, morphology and proliferation as a result of normal cell aging in tissue culture potentially limit the utility of these cells in serial experiments and long term research. Because of these limitations, most research laboratories utilize transformed cell lines for their studies. Cells can be transformed by using viruses which ultimately cause the cells to grow indefinitely in culture. However, such immortalized cell lines have abnormal characteristics compared to non-transformed cells. For this reason, they are not good models of normal tissue in the human body.

The telomerase-immortalized cells may be ideal for use in biological research because these cells proliferate indefinitely and function in culture in the same manner as the normal, mortal cells from which they were derived. Moreover, telomerase-immortalized cells can function in the body to form normal tissue and their capacity to differentiate into mature tissue is maintained. The ability of these cells to maintain normal physical and biological characteristics while retaining proliferative capacity allows them to be a constant source of cells for repeat and long-term studies on the function of cells both in culture and in the body. Telomerase-immortalized cells can be used to study any of the normal biological pathways in cells and can be used to screen for factors which influence the appropriate function of those cells. Moreover, cells taken from diseased tissues which are then telomerase-immortalized in culture can be used to explore the mechanism of the disease process and to develop interventions to prevent or treat that disease.

We distribute the human telomerase gene under material transfer agreements to academic laboratories worldwide in order to generate new applications of our technology and to preserve our commercialization rights in these applications. To date, we have material transfer agreements with over 500 academic laboratories worldwide.

To distribute our telomerase-immortalized cell lines commercially, we established an alliance with Clontech Laboratories, Inc., to distribute telomerase-immortalized cell lines to the not-for-profit research market for basic research applications. Under the alliance, we execute licenses with, and receive license fees from, commercial entities that are supplied by Clontech.

Drug Screens and Toxicology. Three of the major hurdles of pharmaceutical drug development are (i) identifying compounds with activity in diseased tissue; (ii) understanding the metabolism and biodistribution of the compound; and (iii) determining the potential toxic side effects of the compound. Undesirable activity of a compound being evaluated as a candidate drug in any one of these areas can impact the development and commercialization of the drug. The earlier in development that a compound is found to have undesirable characteristics, the faster these characteristics can be potentially corrected. This potentially translates into reduced costs and time in drug development, and less harmful exposure to patients in clinical trials.

Many prospective new drugs fail in clinical trials because of toxicity to the liver or because of poor uptake, distribution or elimination of the active compound in the human body. Much of the efficacy and safety of a drug will depend on how that drug is metabolized into an active or inactive form, and on the toxic metabolites that might be generated in the process. Hepatocytes, the major cells of the liver, metabolize most compounds and thereby can be used to predict many pharmacological characteristics of a drug.

There are no completely effective systems available today to accurately determine the metabolism or toxicity of a compound in human livers. Rat and mouse metabolism models only approximate human metabolism. The development of several drugs has been terminated late in human clinical trials because rodent systems utilized early in the development process failed to predict that the drug would be toxic to humans. Human hepatocyte cell lines available today do not have the same attributes as their normal counterparts in the body and must be transformed in order to maintain their proliferative capacity in culture. Access to fresh primary human liver tissue for use in toxicity studies is very unreliable and substantial variability can be observed depending on the individual donor, the time and process of collection and the culture conditions for the experiments.

We believe telomerase-immortalized hepatocytes would serve as a consistent source of normal human liver tissue which would more closely predict the impact of a new drug on human livers in the body. We believe that telomerase-immortalized hepatocytes which retain normal drug metabolism enzymes would revolutionize toxicity testing, address the largest bottleneck in new drug research and accelerate the drug development process. To potentially meet this need, we are creating immortalized hepatocytes using two methods. First, we will apply our telomerase technology to immortalize human hepatocytes. In every cell system tested, telomerase-immortalized cells have been shown to function comparably to their normal non-immortalized counterparts. Therefore, we believe telomerase-immortalized hepatocytes should also function comparably to hepatocytes in a whole human liver in the body. Second, we are developing procedures to differentiate hESCs into hepatocyte precursors and eventually into mature hepatocytes. Functional hepatocytes, developed by either immortalization by telomerase or derivation from hESCs, would provide a consistent and reliable source of material for extensive and reproducible compound testing.

We intend to commercialize such cells as a means to more accurately determine the potential toxicity and metabolism of a new candidate drug. In addition, the availability of immortalized hepatocytes from numerous individuals would allow a more thorough understanding of the effects of a drug candidate on a specific individual, allowing full development of the field of pharmacogenomics whereby a compound's activity will be correlated with an individual's genetic make-up.

#### Regenerative Medicine

The preceding product opportunities are examples of how we plan to separately use each of our three technology platforms. Additional opportunities arise from their combination. The integration of our three technology platforms -- telomerase, hESCs and nuclear transfer -- allow the development of cell-based therapies that would have broad applications for the treatment of chronic degenerative diseases which are occurring with increasing frequency in our aging population. We are developing three basic approaches to restore organ function lost to chronic diseases: gene, small molecule and cell-based therapies.

We believe that the controlled activation of telomerase in the body will have therapeutic applications for the treatment of blood, skin, liver and immune disorders, conditions in which deficiencies in cell proliferation have been implicated. In the gene-based approach, we intend to deliver the engineered hTERT gene directly to cells to restore telomerase activity in order to restore normal function to the cell. We are also developing a drug-like strategy with our small molecule-based therapy which would reactivate the existing telomerase gene already present in the cell to restore normal function to the cell.

In cell-based therapies, differentiated cells derived from hESCs would be directly injected into the affected tissue where they would integrate into the target tissue and thereby restore organ function. This approach is particularly applicable for the regeneration of tissues that do not normally divide in the body. Such cells include cardiomyocytes (heart muscle cells), neural cells, hepatic (liver) cells and pancreatic islet SS cells. We are currently developing the following cell types for therapeutic applications.

Chronic Liver Disease. There are over 25,000 deaths in the United States every year due to chronic liver disease. This number is expected to increase with the growing number of people who are infected with hepatitis B and C viruses. Each year over nine billion dollars is spent in the United States alone for the treatment and management of patients with chronic liver disease.

Liver regeneration is not observed in most patients with chronic liver disease. However, healthy livers, such as those used for partial transplants, can fully regenerate within weeks after surgery. Compromised liver function and chronic liver disease can result from prolonged exposure to various harmful factors such as chemical toxins, chronic alcohol intake, autoimmune inflammation, metabolic disorders and viral infections. Patients with advanced stages of chronic liver disease often suffer from other complications such as diabetes, bleeding disorders, portal hypertension (localized high blood pressure), edema (fluid retention), mental dysfunction, immune dysfunction, kidney failure and liver cancer which eventually lead to death. Treatment for patients with advanced liver disease usually consists of liver transplantation. Despite some success with this procedure, the majority of candidate patients do not receive transplants due to low organ availability.

Telomerase is not normally expressed in human hepatocytes (liver cells) and numerous studies have shown that shortened telomere lengths are observed in the livers of patients with chronic liver disease. Studies in mice, in which the RNA component of telomerase has been removed, show that these animals have increased sensitivity to liver damage. Studies have shown that restoring telomerase activity in those mice results in the restoration of hepatic regenerative capacity.

We plan to utilize our technology platforms in several different formats to treat liver disease. In one application, we are developing methods to generate telomerase activity in hepatocytes. Using a gene-based therapy approach, the telomerase gene is delivered directly to the liver to determine whether telomerase can restore the regenerative capacity of the damaged liver. Using a cell-based therapy approach, we will apply the same techniques being developed to produce human hepatocytes for drug discovery to create hepatocytes for therapeutic intervention in liver disease. Several potential alternative cell-based therapy approaches are being explored. The first is an external device which would incorporate immortalized human hepatocytes to supplement the patient's own liver function during acute flares of chronic liver disease. The second is the transplantation of immortalized hepatocytes into the patient's liver to seed and stimulate hepatocyte repopulation. Successful development of these therapies potentially could provide therapeutic alternatives for the high proportion of patients who are not candidates for liver transplantation or for whom transplantable organs are not available.

Heart Disease. Heart muscle cells, also known as cardiomyocytes, do not regenerate during adult life. When heart muscle is damaged by injury or decreased blood flow, functional contracting heart muscle is replaced with nonfunctional scar tissue. Congestive heart failure, a common consequence of heart muscle or valve damage, affects more than four million people in the United States. This year, it is estimated that about 1.1 million people will have a heart attack, which is the primary cause of heart muscle damage.

We intend to use cardiomyocytes derived from hESCs to treat heart disease. Researchers have demonstrated proof of concept of our approach in mice. Mouse embryonic stem cells were used to derive mouse cardiomyocytes. When injected into the hearts of recipient adult mice, the cardiomyocytes repopulated the heart tissue and stably integrated into the muscle tissue of the adult mouse heart. These results suggest that hESC-derived cardiomyocytes could be developed for cellular transplantation therapy in humans suffering from congestive heart failure and the damage caused by heart attacks. We have derived human cardiomyocytes from hESCs and observed their normal contractile function. We plan to test these cardiomyocytes in animal models to establish the safety and efficacy of this cell-based therapy.

Parkinson's Disease, Stroke and Spinal Cord Injury. The major neural cells of the nervous system typically do not regenerate after injury. If a nerve cell is damaged due to disease or injury, there is no treatment at present to restore lost function. Millions of patients worldwide suffer from injury to the nervous system or disorders associated with its degeneration. Strokes are caused by blood clots or local bleeding in the brain and result in the death or degeneration of critical brain cells. Over 500,000 Americans suffer strokes each year. Stroke patients are often permanently compromised by loss of cognitive motor and sensory functions for which there are no treatments available today except costly long-term rehabilitation programs which have limited utility in restoring function. Over one million Americans suffer from Parkinson's disease, a neurological disorder caused by the progressive degeneration of specific cells within the brain that control certain motor functions. In the case of spinal cord injuries, patients are often left partly or wholly paralyzed

because nerve and supporting cells in the spinal cord have been damaged and cannot regenerate. Such patients are permanently disabled, often institutionalized, and may require life support.

Embryonic stem cell-derived neural cells have been used by researchers to treat nervous system disorders in animal models. Mouse embryonic stem cells were stimulated to differentiate into neural cells which, when transplanted into mice with neurological disorders, helped to restore normal function. In the case of spinal cord injuries, neural cells derived from animal embryonic stem cells and injected into the spinal cord injury site produced partial recovery of the animal's ability to move and bear weight.

We have derived the major types of neural cells from hESCs in culture, including human neurons, astrocytes and oligodendrocytes, and are characterizing their functional properties. We have devoted a significant portion of our research activities to develop procedures that could enable us to produce these neural cells for transplantation therapy in humans. We will first test these cells in appropriate animal models to determine whether they can restore normal neural function. We intend to repair the damaged portions of patients' nervous systems by transplanting hESC-differentiated neurons.

Skin. The skin is a major organ of the body whose deterioration with age impacts not just human physical health but also appearance and self-esteem. The thinning and increased wrinkling of older skin is symptomatic of impaired wound healing and results in increased frequency of chronic ulcers. Skin cancers are more prevalent than any other form of cancer and are believed to be caused in part by aging of skin cells.

We have initiated a major skin program based upon the activation of telomerase in skin cells. Our scientists and other researchers have established that skin cells age in tissue culture and in the body with loss of telomeric DNA. The restoration of telomerase activity in skin cells in culture dramatically extends the healthy lifespan of these cells. Animal models of telomere loss also correlate cellular aging with thinning of skin, graying of hair, chronic ulcerative lesions at areas of stress and reduced ability to repair wounds. Our approach to the therapeutic use of telomerase activation in skin includes both small molecule drug discovery, as well as biological and genetic methods of introducing telomerase into various skin cells.

Diabetes. It is estimated that there are as many as one million Americans suffering from the type of diabetes known as Insulin Dependent Diabetes Mellitus. Normally, certain cells in the pancreas, called the islet (beta) cells, produce insulin which promotes the uptake of the sugar glucose by cells in the human body. Degeneration of pancreatic islet (beta) cells results in a lack of insulin in the bloodstream which results in diabetes. Although diabetics can be treated with daily injections of insulin, these injections enable only intermittent glucose control. As a result, patients with diabetes suffer chronic degeneration of many organs, including the eye, kidney, nerves and blood vessels. In some cases, patients with diabetes have been treated with islet (beta) cell transplantation. However, poor availability of suitable sources for islet (beta) cell transplantation and the complications of the required co-administration of immunosuppressive drugs make this approach impractical as a treatment for the growing numbers of individuals suffering from diabetes.

By integrating our three technology platforms -- telomerase, hESCs and nuclear transfer -- we intend to derive histocompatible, or genetically matched, insulin-producing islet (beta) cells for transplantation. Pilot studies are underway with collaborators to determine the effects of telomerase expression on primary (beta) cells derived from human islet tissue. In addition, we are devising techniques to differentiate islet (beta) cells from hESCs which would be used in studies of animal models of diabetes. We intend to derive long-lived, transplantable islet (beta) cells which could support the patient's insulin requirements for life.

#### Additional Applications for Nuclear Transfer

Xenotransplantation. The demand for organ transplantation far outweighs the number of human organs available. It is estimated that there are over 150,000 people worldwide waiting for an organ. In the United States, more than 60,000 individuals were registered on transplant waiting lists at the end of 1998. That year, however, less than half of the people listed received solid organ transplants. The demand for organ transplantation will continue to increase as improved technical skills and anti-rejection medication make whole organ transplantation a realistic option for groups of people previously considered not eligible for transplantation -- for example, those suffering from diabetes or those over age 55.

Programs to increase the number of registered donors are extremely important, but these programs alone will not solve the problem of organ shortages. One solution under consideration by the medical, pharmaceutical and biotechnology communities is xenotransplantation -- the process of transplanting cells, tissues or organs from one species to another, for example, from an animal to a human. This approach potentially could be used either as a bridge to human organ transplantation or as long-term therapy in the form of a permanent transplant.

Pigs are the preferred source for xenotransplantation because they have organs of comparable size and anatomy to human organs. Through nuclear transfer, it should be possible to produce genetically modified pigs to make their organs more suitable for transplantation to humans without causing an acute immune rejection. Acute immune rejection of transplanted pig organs is caused by natural human antibodies which recognize and react to certain sugar structures present in the blood vessels of the transplanted pig tissue. By deleting the gene for the enzyme which generates the key sugar structure that triggers the immune rejection from the pig genome, we could clone an animal via nuclear transfer that had organs with reduced probability of acute rejection. This would enable the cost-effective and scalable production of identical animals for clinical trials. Cloned herds of pigs which would no longer carry the foreign sugar structure could become a commercial source of organs that would not be rejected by the recipients' immune system. Such cloned pigs might serve as sources for multiple transplantable organs such as hearts, kidneys and pancreases.

Transgenic Animals. Our nuclear transfer technology can be applied to clone animals that have been genetically engineered to produce proteins for human therapeutic or industrial use. For example, herds which carry the genes to make human antibodies could be cloned, thereby allowing for the large-scale production of therapeutic antibodies or vaccines.

Agriculture. Our nuclear transfer and gene targeting technologies can be used for applications in agriculture that improve livestock by producing unlimited numbers of genetically identical animals with superior commercial qualities. Such applications can be extended to major agricultural sectors, such as beef, dairy, pig and chicken, to provide large numbers of animals with superior characteristics of disease resistance, longevity, growth rate or product quality.

We are focusing our research collaboration at the Roslin Institute on developing more efficient nuclear transfer procedures suitable for xenotransplantation, production of biologicals by transgenic animals and agricultural applications. Such technologies should also prove useful in reprogramming strategies for the production of genetically matched human cells for tissue transplantation. We plan to widely license this technology to companies working in these areas.

#### COMMERCIALIZATION

We believe that our broad scientific platforms will generate significant opportunities for a variety of strategic collaborations. We have established and intend to continue to establish selective collaborations with leading pharmaceutical, diagnostic and technology companies to enhance our research, development and commercialization capabilities and to participate in commercialization opportunities. In each of these strategic collaborations and in future collaborations, we retain and intend to retain co-promotion rights to participate in the commercial success of our products.

#### Kyowa Hakko Collaboration

In April 1995, we entered into a license and research collaboration agreement with Kyowa Hakko Kogyo Co., Ltd. Under the agreement, Kyowa Hakko agreed to provide \$16.0 million of research funding over four years to support our program to discover and develop in several Asian countries a telomerase inhibitor for the treatment of cancer. All of this research funding had been received as of December 31, 2000. In addition, we are entitled to receive future payments upon the achievement of certain contractual milestones relating to drug development and regulatory progress, as well as royalty payments on product sales. Kyowa Hakko also purchased \$2.5 million of our common stock in connection with our initial public offering. Under the Kyowa Hakko Agreement, we exercise significant influence during the research phase and Kyowa Hakko exercises significant influence during the development and commercialization phases. Kyowa Hakko has agreed that it

will not independently pursue telomerase inhibition for the treatment of cancer in humans until March 2002. In February 2000, we amended our agreement with Kyowa Hakko to extend the research period and the compound selection period for one additional year each, to March 2001 and March 2002, respectively. We are entitled to receive additional research funding as part of this extension subject to the terms of the agreement.

#### Pharmacia Corporation Collaboration

In March 1997, we signed a license and research collaboration agreement with Pharmacia Corporation to collaborate in the discovery, development and commercialization of a new class of anti-cancer drugs that inhibit telomerase. Under the collaboration, Pharmacia agreed to provide research funding over three years. As of December 31, 2000, \$18.8 million of research funding had been received. In addition, the agreement provided for future payments to Geron upon the achievement of certain contractual milestones relating to drug development and regulatory progress, as well as royalty payments on future product sales. As outlined in the stock purchase agreement, Pharmacia purchased equity in Geron in installments of \$2.0 million in January 1997, \$4.0 million in April 1997 and \$4.0 million in March 1998. Pharmacia purchased each round of our common stock at a premium. As part of this collaboration, we accessed the high throughput screening capabilities and the three million compound library of Pharmacopoeia in 1999, via an alliance between Pharmacia and Pharmacopoeia which included telomerase inhibition. In January 2000, Pharmacia exercised an option to extend the research period one year to March 2001 and added a one year compound selection period for a back-up candidate. That agreement provided for additional research funding to us as part of the extension.

In January 2001, the parties agreed to terminate the license and research collaboration agreement. Pharmacia returned all product rights for telomerase inhibitors to us. We plan to continue our development work on compounds that inhibit telomerase for applications in cancer chemotherapy.

#### Roslin Institute Collaboration

In May 1999, we completed the acquisition of Roslin Bio-Med Ltd., a company formed by the Roslin Institute in Midlothian, Scotland, in order to complement and strengthen our technology platforms. Under the terms of the agreement, we purchased all outstanding shares of Roslin Bio-Med in exchange for 2.1 million shares of our common stock and Roslin Bio-Med became a wholly owned United Kingdom subsidiary known as Geron Bio-Med Ltd. In addition, the Roslin Institute transferred to us the exclusive rights to the patent applications covering nuclear transfer technology for all animal and human-based biomedical applications, excluding (i) human reproductive cloning, (ii) the production of therapeutic proteins in the milk of ruminants and rabbit and (iii) the modification of milk composition for nutraceutical use.

In connection with this acquisition, we also formed a research collaboration with the Roslin Institute and have agreed to provide approximately \$20.0 million in applied research funding over six years. Under this collaboration, we retain exclusive license rights to commercialize the results of the research. This alliance brings together three complementary technologies: telomerase, human embryonic stem cells and nuclear transfer technologies. We and the Roslin Institute will focus on generating genetically matched human cells and tissues with extended replicative capacity for use in repairing organ damage caused by a range of degenerative diseases, including chronic liver disease, heart disease, neurologic diseases, skin conditions and diabetes. We have focused the research at the Roslin Institute on understanding the basic biology of cellular reprogramming by animal egg cells in order to accelerate progress on developing cells that could be transplanted without human immune rejection.

Also, we are advancing work underway at the Roslin Institute on the development of genetically modified cloned animals for applications in xenotransplantation and agriculture. Accordingly, we are engaged in discussions with other companies to non-exclusively license our nuclear transfer technology for commercial applications in agriculture, xenotransplantation and biological production. Three such licenses have been granted thus far to AviGenics, Inc. and Origen Therapeutics, Inc. for poultry applications, and to Clone Australia Pty Ltd. for cattle cloning.

## Clontech Marketing Agreement

In March 1999, we entered into a development and license agreement with Clontech Laboratories, Inc. to market the Infinity(TM) product family of primary human cell lines immortalized with telomerase. Under the terms of the agreement, Clontech manufactures and markets products resulting from the use of our telomerase technology to the not-for-profit research market. Clontech also supplies products to the biotechnology and pharmaceutical industries under licenses to be executed between the individual commercial companies and us. Under the Clontech agreement, Clontech paid us an up-front fee of \$50,000 for development activities. We will equally share operating profits with Clontech from the sales of the Infinity(TM) Cell Lines, while we will retain all licensing revenues.

In 2000, Clontech launched the hTERT-HME1 human mammary epithelial cell line, which adds to the other two cell lines already being marketed in 1999. We and Clontech plan to expand the family of Infinity(TM) Cell Lines in the future.

## Diagnostic Collaborations

**Research-Use-Only Kits.** Roche Diagnostics has licensed all telomerase and telomere length assay technologies, including TRAP, hTR, hTERT, and telomere length, for research-use-only kits for cancer. All telomerase licenses previously licensed to Boehringer Mannheim were transferred to Roche Diagnostics following their acquisition of Boehringer Mannheim. Boehringer Mannheim's telomerase-related products are now marketed under the Roche Diagnostics label. In late 1996, Boehringer Mannheim commenced commercial sale of the TRAP research kit. In 1999, Roche Diagnostics launched three additional research kits, including quantitative TRAP, telomere length measurement and hTERT quantification assays. In 2000, Roche Diagnostics launched an hTR quantification kit. Roche Diagnostics is currently marketing a total of five kits.

Examples of other companies marketing research-use-only kits under license include the following:

- In 1999, Roche Diagnostics entered into a sublicense agreement with Dako under which Dako received non-exclusive rights to develop antibody mediated telomerase detection assays and telomere length measurement assays for research and clinical diagnostic applications in oncology. We receive royalties from products commercialized under this sublicense. In 1999, Dako marketed two kits for measuring telomere length by fluorescence microscopy. In 2000, Dako launched a telomere length measurement kit for flow cytometry. Dako is currently marketing a total of three kits.
- Kyowa Medex Co. has licensed our TRAP assay technology on a non-exclusive basis for the research-use-only market in Japan and commenced commercial sale of Intergen's TRAP kit in late 1996.
- We licensed the TRAP assay for research-use-only to Oncor Inc. and the license has been subsequently transferred to the Intergen Company following the acquisition of Oncor's research reagent division by Intergen. Intergen is currently marketing three TRAP research kits.
- PharMingen has licensed our TRAP assay and telomere length measurement technology on a non-exclusive basis for sale to the research-use-only market and presently has two research kits on the market.

Although we do not expect royalties from the sale of these 13 research kits to be significant, the use of these kits has stimulated additional studies of telomerase activity by academic laboratories and standardized the methodology used to evaluate the role of telomerase in cancer.

**In Vitro Diagnostics.** In addition to the rights described above related to research-use-only kits, our December 1997 license, product development and marketing agreement with Boehringer Mannheim also granted Boehringer Mannheim rights to develop and commercialize clinical in vitro diagnostic products for cancer on an exclusive, worldwide basis. Under the agreement, Boehringer Mannheim provided reimbursement in the amount of \$500,000 for research previously conducted and is responsible for all clinical, regulatory, manufacturing, marketing and sales efforts and expenses. We are entitled to receive future payments upon achievement of certain contractual milestones relating to levels of product sales, as well as

royalties on product sales. Further, we have an option at our sole discretion to exercise co-promotion rights with respect to in vitro diagnostic products in the United States. After the acquisition of Boehringer Mannheim by Roche Diagnostics in 1998, all telomerase licenses previously licensed to Boehringer Mannheim were transferred to Roche Diagnostics.

#### Celera Genomics Collaboration

In May 2000, we entered into a collaborative research and license agreement with Celera Genomics to combine our expertise in human embryonic stem cell biology with Celera's comprehensive sequencing information and gene discovery capabilities. Under the terms of the collaboration, we will work together with Celera to identify and assign biological function to genes involved in human cell differentiation. We will utilize the information to develop and commercialize a number of small molecule drugs, protein therapeutics, cell and gene therapy products, and prenatal diagnostics. Celera will utilize the information to enhance the annotation of the human genome and develop and commercialize probe sets for gene expression analysis. Celera and Geron will license to third parties certain intellectual property to develop other products.

#### Merix Bioscience Collaboration

In August 2000, we initiated a collaboration with Merix Bioscience, Inc. to develop telomerase-based cancer vaccines for clinical and commercial applications using Merix's proprietary ex vivo RNA-modified dendritic cell technology platform. Under the terms of the collaboration, we are sponsoring preclinical studies at Duke University to confirm the safety and efficacy of hTERT-modified dendritic cells to mediate immune responses against tumors. Studies will be performed in parallel by Merix. We will jointly determine the clinical development plan for the combined technology.

#### RESEARCH COLLABORATIONS

We selectively enter into, and intend to continue to enter into, collaborative research agreements with leading academic and research institutions. We design these collaborative agreements to significantly enhance our research and development capabilities while enabling us to obtain commercial rights to intellectual property developed through the research collaboration. Under these agreements, we generally provide funding or other resources for scientific research in return for commercial rights to materials and discoveries arising out of this research. We seek to retain rights to commercially develop and market discoveries made under these research programs by obtaining rights to exclusively license technology developed under them, including patents and patent applications filed in connection with these research programs.

As of December 31, 2000, we have collaborative research agreements in support of our oncology program with a number of institutions, including Duke University, Lawrence Berkeley National Laboratory, the National Cancer Institute, Stanford University, the University of Texas Southwestern Medical School at Dallas, the University of California at San Francisco, the Memorial Sloan-Kettering Cancer Center, Texas A&M University, Hong Kong University of Science and Technology and the University of Pittsburgh. We have collaborative research agreements in support of our research of telomerase-immortalized cells with numerous institutions, including Duke University and Stanford University. We have exclusive license and collaborative research agreements in support of our human embryonic stem cell research and regenerative medicine program with The Johns Hopkins University, the University of California at San Francisco, the University of Edinburgh, the University of Wisconsin -- Madison, Cornell University and the University of Utah.

#### PATENTS, PROPRIETARY TECHNOLOGY AND TRADE SECRETS

Our three core technology platforms are supported by a broad intellectual property portfolio of issued patents and pending patent applications. We currently own or have licensed over 67 issued or allowed United States patents, 28 granted foreign patents and over 318 patent applications that are pending around the world.

Our policy is to seek, when appropriate, patent protection for inventions in our core technology platforms as well as ancillary technologies that support these platforms or otherwise provide a competitive advantage to

us. We achieve this by filing patent applications for discoveries made by us alone or made in conjunction with our scientific collaborators and strategic partners. Typically, although not always, we file patent applications in the United States and internationally through the Patent Cooperation Treaty. In addition, we obtain licenses or options to acquire licenses from other organizations to patent filings that may be useful in advancing our scientific and product development programs.

Patent rights to embryonic stem cells and telomerase underpin our regenerative medicine program. Currently, we own or have licensed rights to two issued United States patents relating to human embryonic stem cells and human embryonic germ cells. Our licenses to certain of these patent rights arise from the work that we funded at The University of Wisconsin, Johns Hopkins University and The University of California at San Francisco. We have also developed our own stem cell intellectual property asset based, among other things, on our discoveries of new methods for growing the cells that are suitable for large scale culture and techniques for making cells such as hepatocytes (liver cells), cardiomyocytes (heart muscle cells) and neural cells (nerve cells) starting from the stem cells. We currently have over 48 patent applications pending around the world covering various aspects of our stem cell technology.

Our product development plans for our telomerase-related technologies are protected by over 42 issued United States patents, 13 granted foreign patents and over 202 patent applications pending around the world. These include patents and patent applications that cover the use of telomerase for gene-based therapeutic applications, which is part of our regenerative medicine program. Our telomerase intellectual property also covers our oncology program, aspects of which include methods of detecting cancer based on telomerase, the use of telomerase as a cancer vaccine and drugs designed to inhibit telomerase activity in cancer cells. For example, our issued United States patents include purified human telomerase, the cloned gene that encodes the RNA component of telomerase and various methods of detecting and diagnosing conditions associated with telomerase, including cancer. Our granted foreign patents include the cloned genes that encode the RNA and protein components of human telomerase, the promoter sequence that regulates the expression of the telomerase protein gene and diagnostic methods. We also own several issued United States patents and pending international patent applications directed to both small molecule and template antagonist telomerase inhibitors, as well as particular nucleic acid chemistry developed at Geron.

Our third technology platform, nuclear transfer, is protected in part by the patent rights that we acquired in 1999 with the acquisition of Roslin Bio-Med, now Geron Bio-Med. A number of patents have now issued based on that technology, including one United States patent and 14 foreign patents. In addition, we have more than 52 pending patent applications worldwide relating to nuclear transfer and cell reprogramming, based both on our continued funding of research at the Roslin Institute and our internal research programs. Intellectual property rights to the nuclear transfer technology are the primary asset of our licensing program through which we are granting licenses for cloning animals for use in agriculture, xenotransplantation and biopharmaceutical production. The use of nuclear transfer and related reprogramming technologies in human cells may also allow us to produce genetically matched cells for our regenerative medicine program.

#### GOVERNMENT REGULATION

Regulation by governmental authorities in the United States and other countries is a significant factor in the development, manufacture and marketing of our proposed products and in our ongoing research and product development activities. The nature and extent to which such regulation applies to us will vary depending on the nature of any products which may be developed by us. We anticipate that many, if not all, of our products will require regulatory approval by governmental agencies prior to commercialization. In particular, human therapeutic and vaccine products are subject to rigorous preclinical and clinical testing and other approval procedures of the Food & Drug Administration, or FDA, and similar regulatory authorities in European and other countries. Various governmental statutes and regulations also govern or influence testing, manufacturing, safety, labeling, storage and recordkeeping related to such products and their marketing. The process of obtaining these approvals and the subsequent compliance with appropriate statutes and regulations require the expenditure of substantial time and money. Any failure by us or our collaborators to obtain, or any delay in obtaining these approvals may affect the marketing of any products developed by us, will prevent us from generating product revenues and obtaining adequate cash to continue present and planned operations.

## FDA Approval Process

Prior to commencement of clinical studies involving humans, preclinical testing of new pharmaceutical products is generally conducted on animals in the laboratory to evaluate the potential efficacy and the safety of the product. The results of these studies are submitted to the FDA as a part of an Investigational New Drug application, which must become effective before clinical testing in humans can begin. Typically, human clinical evaluation involves a time consuming and costly three-phase process. In Phase 1, clinical trials are conducted with a small number of people to assess safety and to evaluate the pattern of drug distribution and metabolism within the body. In Phase 2, clinical trials are conducted with groups of patients afflicted with a specific disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. In Phase 3, large-scale, multi-center, comparative trials are conducted with patients afflicted with a target disease in order to provide enough data to demonstrate the efficacy and safety required by the FDA. The FDA closely monitors the progress of each of the three phases of clinical testing and may, at its discretion, re-evaluate, alter, suspend, or terminate the testing based upon the data which have been accumulated to that point and its assessment of the risk/benefit ratio to the patient. Monitoring of all aspects of the study to minimize risks is a continuing process. Reports of all adverse events must be made to the FDA.

The results of the preclinical and clinical testing on a non-biologic drug and certain diagnostic drugs are submitted to the FDA in the form of a New Drug Application, or NDA, for approval prior to commencement of commercial sales. In the case of vaccines or gene and cell therapies, the results of clinical trials are submitted as a Biologics License Application. In responding to a NDA or Biologics License Application, the FDA may grant marketing approval, request additional information or deny the application if the FDA determines that the application does not satisfy its regulatory approval criteria. There can be no assurance that approvals will be granted on a timely basis, if at all, for any of our products. Similar procedures are in place in countries outside the United States.

## European and Other Regulatory Approval

Whether or not FDA approval has been obtained, approval of a product by comparable regulatory authorities in Europe and other countries will likely be necessary prior to commencement of marketing the product in such countries. The regulatory authorities in each country may impose their own requirements and may refuse to grant, or may require additional data before granting an approval, even though the relevant product has been approved by the FDA or another authority. As with the FDA, the regulatory authorities in the European Union, or EU, countries and other developed countries have lengthy approval processes for pharmaceutical products. The process for gaining approval in particular countries varies, but generally follows a similar sequence to that described for FDA approval. In Europe, the European Committee for Proprietary Medicinal Products provides a mechanism for EU-member states to exchange information on all aspects of product licensing. The EU has established a European agency for the evaluation of medical products, with both a centralized community procedure and a decentralized procedure, the latter being based on the principle of licensing within one member country followed by mutual recognition by the other member countries.

## Other Regulations

We are also subject to various United States, federal, state, local and international laws, regulations and recommendations relating to safe working conditions, laboratory and manufacturing practices and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our research work. We cannot accurately predict the extent of government regulation which might result from future legislation or administrative action.

## SCIENTIFIC ADVISORS AND CONSULTANTS

We have consulting agreements with a number of leading academic scientists and clinicians. These individuals serve as members of our Scientific Advisory Board or as key consultants with respect to our product development programs and strategies. They are distinguished scientists and clinicians with expertise in numerous scientific fields, including the genetics of aging, embryonic stem cells, nuclear transfer, cell

senescence and telomere and telomerase biology, as well as developmental biology, cellular biology and molecular biology.

We established the advisory board to provide us with expert advice and consultation on our scientific programs and strategies. Members of the advisory board also serve as important contacts for us throughout the broader scientific community. The advisory board meets at least once annually as a whole or in smaller groups to focus on general strategy and certain specific scientific issues. We also contact individual members of the advisory board to provide advice and consultation on an ad hoc basis, as appropriate.

We retain each member of the advisory board according to the terms of a consulting agreement between the advisory board member and us. Under such consulting agreements, some advisory board members hold options to purchase our common stock, subject to the vesting requirements contained in the consulting agreements. In addition, we pay advisory board members a consulting fee and reimburse them for out-of-pocket expenses incurred in attending each advisory board meeting. Most members of the advisory board are employed by institutions other than ours, and therefore may have commitments to, or consulting or advisory agreements with, other entities or academic institutions that may limit their availability to us.

As of December 31, 2000, our advisory board members and key consultants included the following individuals:

STEPHEN BENKOVIC, PH.D., is Professor of Chemistry at the Pennsylvania State University and is a member of our Scientific Advisory Board. Dr. Benkovic is a member of the Chemical Society and the recipient of the 1998 Chemical Pioneer Award given by the American Institute of Chemists. He is an internationally recognized expert in protein chemistry, including the enzymology of DNA polymerases.

DAVID BOTSTEIN, PH.D., is Professor and Chairman of the Department of Genetics, Stanford University School of Medicine. He was elected to the National Academy of Sciences in 1981 and to the Institute of Medicine in 1993. His current research activities include studies of yeast genetics and cell biology, linkage mapping of human genes predisposing to manic-depressive illness and the development and maintenance of the Saccharomyces Genome Database on the World Wide Web. He has received numerous awards, including the Genetics Society of America Medal (1985) and the Allen Award of the American Society of Human Genetics (1989). Dr. Botstein has served on numerous committees including the National Institutes of Health (NIH) Program Advisory Panel on the Human Genome (1989 - 90) and the Advisory Council of the National Center for Human Genome Research (1990 - 95).

JUDITH CAMPISI, PH.D., is a Senior Scientist and Acting Chair, Department of Cancer Biology, Lawrence Berkeley National Laboratory. She has been an Established Investigator of the American Heart Association and currently has a MERIT Award from the NIA, and serves on its Board of Scientific Counselors. Her major interests are the cellular and molecular biology of senescence and tumorigenesis.

JOHN CLARK, OBE, FRSE, PH.D., is Head of the Division of Molecular Biology at the Roslin Institute and is the leader of Geron Bio-Med's cellular reprogramming team. Dr. Clark was a scientific founder of PPL Therapeutics, plc and is also a Professor in the Division of Biology at Edinburgh University. He received the Order of the British Empire from the Queen of England in 1997 for his contribution to biotechnology and particularly his pioneering work on the modification of milk composition by genetic engineering of livestock. He was elected to the Royal Society of Edinburgh in 1999. Current research areas include use of genetically modified animals for biomedical and agricultural applications and fundamental studies of the control of gene expression.

DOUGLAS HANAHAN, PH.D., is a Professor of Biochemistry in the Department of Biochemistry and Biophysics and Associate Director of the Hormone Research Institute, University of California at San Francisco and is a member of our Scientific Advisory Board. His major research interests are the cellular and genetic mechanisms of tumor development and autoimmunity. Prior to joining the University of California at San Francisco in 1988, Dr. Hanahan was with the Cold Spring Harbor Laboratory for nine years, where he developed technologies for recombinant DNA and molecular cloning and established transgenic mouse models to study cancer and autoimmune diseases.

RUDOLF JAENISCH, PH.D., is a Professor of Biology at the Massachusetts Institute of Technology, a member of the Whitehead Institute for Biomedical Research and a member of our Scientific Advisory Board. Dr. Jaenisch is internationally known for his research on the control of gene expression in mammalian development and genetic disease. He has recently turned his attention to the use of mammalian cloning technology to distinguish epigenetic and genetic alterations in the genome and their role in growth and development.

MALCOLM MOORE, PH.D., is a Professor of Biology at the Sloan-Kettering Division, Cornell Graduate School of Medical Sciences and is internationally known for his pioneering work in hematopoiesis, growth factors and cytokines. He is also currently incumbent of the Enid A. Haupt Chair of Cell Biology, Memorial Sloan-Kettering Cancer Center. Dr. Moore received the William B. Coley Award For Distinguished Research in Immunology by the Cancer Research Institute in June 1995.

ROGER A. PEDERSEN, PH.D., is a Professor of Obstetrics, Gynecology and Reproductive Sciences at the University of California at San Francisco, where he teaches developmental genetics and mammalian embryology. He received his B.A. degree from Stanford University, and his Ph.D. at Yale University. He completed his postdoctoral research at the Johns Hopkins University. Since 1991 he has served as Series Editor of Current Topics in Developmental Biology. He has written numerous original publications and reviews on early mouse development, and co-produced two instructional videotapes on the use of mice in transgenic and gene targeting research.

JERRY W. SHAY, PH.D., is a Professor of Cell Biology and Neuroscience at the University of Texas Southwestern Medical Center at Dallas and is a member of our Scientific Advisory Board. Dr. Shay's research focuses on molecular mechanisms of tumorigenesis and immortalization with a particular emphasis on cancer of the breast. Dr. Shay has numerous publications, honors and patents. He is also on the editorial board for the Journal of Clinical Pathology.

JAMES D. WATSON, PH.D., is President of Cold Spring Harbor Laboratory and is a member of our Scientific Advisory Board. Dr. Watson is the former head of the NIH Human Genome Project and is famous for his 1953 discovery with Francis Crick of the double helical structure of DNA for which they shared the Nobel Prize.

IAN WILMUT, OBE, B.SC., PH.D., D.SC., F.MED.SCI., is Professor of the Division of Biological Science of the University of Edinburgh and is the head of the Geron Bio-Med nuclear transfer team. Professor Wilmut has received numerous prizes, including the Sir John Hammond Prize by the British Society of Animal Production, the Golden Plate Award by the American Academy of Achievement of Science and Technology, the Lord Lloyd of Kilgerran Prize by the Foundation of Science and Technology, and the Order of the British Empire from the Queen of England in 1999. He is the leader of the team that cloned Dolly, the first animal to develop after nuclear transfer from an adult cell, and is an internationally recognized expert in the field of nuclear transfer. Current research areas include early mammalian development, embryo manipulation, nuclear transfer and gene targeting in mice, cattle, sheep and pigs.

WOODRING E. WRIGHT, M.D., PH.D., is a Professor of Cell Biology and Neuroscience at the University of Texas Southwestern Medical Center at Dallas and is a member of our Scientific Advisory Board. He is widely recognized as a leading molecular biologist working in the field of cellular senescence and on the molecular basis of muscle development.

#### GERON ETHICS ADVISORY BOARD

In July 1998, we created an Ethics Advisory Board whose members represent a variety of philosophical and theological traditions with broad knowledge in health care ethics. The advisory board functions as an independent entity, consulting and giving advice to us on the ethical aspects of our work. Members of the advisory board have no financial interest in Geron.

As of December 31, 2000, the Ethics Advisory Board consisted of the following individuals:

KAREN LEBACQZ, PH.D., is the Robert Gordon Sproul Professor of Theological Ethics at the Pacific School of Religion in the Graduate Theological Union, Berkeley, California. She has published extensively on ethics and genetics as well as research ethics and served on the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research.

ALBERT JONSEN, PH.D., is Professor Emeritus of Ethics in Medicine and former chairperson of the Department of Medical History and Ethics, School of Medicine, University of Washington. He has contributed chapters to more than 70 books on medicine and health care and his articles have appeared in numerous publications.

TED PETERS, PH.D., is Professor of Systematic Theology at Pacific Lutheran Theological Seminary. He conducts research at the Center for Theology and the National Sciences where he is principle investigator for a research project on "Theological and Ethical Implications of the Human Genome Initiative." He is also editor of Genetics: Issues of Social Justice.

ERNLE W. D. YOUNG, PH.D., is Clinical Professor of Ethics in the Department of Medicine and Pediatrics at Stanford University School of Medicine, a Co-Director of Stanford University's Center for Biomedical Ethics, the Clinical Ethics Consultant to Stanford University Hospital and to Veterans' Affairs hospitals in Palo Alto and Fresno, California. He has published extensively on issues in bioethics.

LAURIE ZOLOTH-DORFMAN, PH.D., is Associate Professor of Social Ethics and Director of the Program in Jewish Studies at San Francisco State University and a Co-Founder of The Ethics Practice, a group which provides education services and consultation on bioethics to health care providers and health care systems. She has published on bioethics, religion, and health care.

EXECUTIVE OFFICERS OF THE COMPANY

The following table sets forth certain information with respect to the executive officers of Geron Corporation:

NAME ----	AGE ---	POSITION -----
Thomas B. Okarma, Ph.D., M.D. ....	55	President, Chief Executive Officer and Director
David L. Greenwood.....	49	Chief Financial Officer, Senior Vice President Corporate Development, Treasurer and Secretary
David J. Earp, Ph.D., J.D. ....	36	Vice President, Intellectual Property
Calvin B. Harley, Ph.D. ....	48	Chief Scientific Officer
Jane S. Lebkowski, Ph.D. ....	45	Vice President, Cell and Gene Therapies
Jeannine M. Niacaris.....	48	Vice President, Human Resources and Administrative Services
William D. Stempel, J.D. ....	47	Vice President and General Counsel
Richard L. Tolman, Ph.D. ....	59	Vice President, Drug Discovery

THOMAS B. OKARMA, PH.D., M.D., has served as our President, Chief Executive Officer and director since July 1999. He is also a director of Geron Bio-Med Limited, a United Kingdom company. From May 1998 until July 1999, Dr. Okarma was the Vice President of Research and Development. From December 1997 until May 1998, Dr. Okarma was Vice President of Cell Therapies. From 1985 until joining us, Dr. Okarma, the scientific founder of Applied Immune Sciences, Inc., served initially as Vice President of Research and Development and then as its chairman, chief executive officer and a director, until 1995 when it was acquired by Rhone-Poulenc Rorer. Dr. Okarma was a Senior Vice President at Rhone-Poulenc Rorer from the time of the acquisition of Applied Immune Sciences, Inc. until December 1996. From 1980 to 1985, Dr. Okarma was a member of the faculty of the Department of Medicine at Stanford University School of Medicine. Dr. Okarma holds a A.B. from Dartmouth College and a M.D. and Ph.D. from Stanford University.

DAVID L. GREENWOOD has served as our Chief Financial Officer, Treasurer and Secretary since August 1995, Vice President of Corporate Development since April 1997 and Senior Vice President of Corporate

Development since August 1999. He is also a director of Geron Bio-Med Limited, a United Kingdom company. From 1979 until joining us, Mr. Greenwood held various positions with J.P. Morgan & Co. Incorporated, an international banking firm, and its subsidiaries, J.P. Morgan Securities Inc. and Morgan Guaranty Trust Company of New York. Mr. Greenwood holds a B.A. from Pacific Lutheran University and an M.B.A. from Harvard Business School.

DAVID J. EARP, J.D., PH.D., joined us in June 1999 and has served as our Vice President, Intellectual Property since October 1999. From 1992 until joining us, Dr. Earp was with the intellectual property law firm of Klarquist Sparkman Campbell Leigh and Whinston, LLP where his practice focused on biotechnology patent law. Dr. Earp holds a B.S. in microbiology from the University of Leeds, England, a Ph.D. in biochemistry and molecular biology from The University of Cambridge, England, and conducted postdoctoral research at the University of California at Berkeley. He received his J.D. magna cum laude from the Northwestern School of Law of Lewis and Clark College in Portland, Oregon.

CALVIN B. HARLEY, PH.D., has served as our Chief Scientific Officer since July 1996. From May 1994 until July 1996, Dr. Harley was Vice President of Research and from April 1993 to May 1994, Dr. Harley was Director, Cell Biology. Dr. Harley was an Associate Professor from 1989 until joining us, and from 1982 to 1989, an Assistant Professor of Biochemistry at McMaster University. Dr. Harley was also an executive of the Canadian Association on Gerontology, Division of Biological Sciences from 1987 to 1991. Dr. Harley holds a B.S. from the University of Waterloo and a Ph.D. from McMaster University, and conducted postdoctoral work at the University of Sussex and the University of California at San Francisco.

JANE S. LEBKOWSKI, PH.D., has served as our Vice President of Cell and Gene Therapies since August 1999. Since joining us in April 1998 and until August 1999, Dr. Lebkowski served as Senior Director, Cell and Gene Therapies. Formerly, Dr. Lebkowski was employed at Applied Immune Sciences, from 1986 to 1995 where she served as Vice President, Research and Development. In 1995, Applied Immune Sciences was acquired by Rhone-Poulenc Rorer, at which time Dr. Lebkowski was appointed Vice President, Discovery & Product Development. Dr. Lebkowski graduated Phi Beta Kappa with a B.S. in Chemistry and Biology from Syracuse University and received her Ph.D. from Princeton University.

JEANNINE M. NIACARIS, joined us in November 1999 and has served as our Vice President, Human Resources and Administrative Services since June 2000. Previously, she held senior human resources positions at several biotech companies including Matrix Pharmaceuticals, Sequus Pharmaceuticals and Affymax Research Institute. She holds a B.A. in Education from Western Washington University and a M.A. in Human Resources from Redland University.

WILLIAM D. STEMPEL, J.D., has served as our Vice President and General Counsel since January 2001. From 1998 until joining us, Mr. Stempel was the General Counsel at UCSF Stanford Health Care in San Francisco. From 1987 to 1998, Mr. Stempel was Deputy General Counsel at Yale University where he worked in a wide range of areas including intellectual property, medical affairs and research administration. Mr. Stempel holds B.A. and J.D. degrees from Yale University. He is a member of the bars of the States of California, Connecticut and New York, and the United States District Courts for the District of Connecticut, Southern District of New York and Eastern District of New York.

RICHARD L. TOLMAN, PH.D., has served as our Vice President of Drug Discovery since August 1999. From December 1998 until August 1999, Dr. Tolman served as Senior Director, Medicinal Chemistry overseeing the program to discover and develop a small molecule telomerase inhibitor. From 1973 until joining us, Dr. Tolman was employed at the Merck Research Laboratories where he served as Senior Director, Medicinal Chemistry. He received a B.A. in Chemistry with Honors from Brigham Young University and earned a Ph.D. with distinction from the University of Utah.

#### EMPLOYEES

As of December 31, 2000, we had 112 full-time employees of whom 32 hold Ph.D. degrees and 39 hold other advanced degrees. Of the total workforce, 89 are engaged in, or directly support, our research and development activities and 23 are engaged in business development, finance and administration. We also

retain outside consultants. None of our employees is covered by a collective bargaining agreement, nor have we experienced work stoppages. We consider relations with our employees to be good.

#### ADDITIONAL FACTORS THAT MAY AFFECT FUTURE RESULTS

Our business is subject to various risks, including those described below. You should carefully consider these risk factors, together with all of the other information included in this Form 10-K. Any of these risks could materially adversely affect our business, operating results and financial condition.

#### OUR BUSINESS IS AT AN EARLY STAGE OF DEVELOPMENT AND WE MAY NOT DEVELOP ANY PRODUCTS THAT REACH CLINICAL TRIALS

The study of the mechanisms of cellular aging and cellular immortality, including telomere biology and telomerase, the study of human embryonic stem cells, and the process of nuclear transfer are relatively new areas of research. Our business is at an early stage of development. We have not yet produced any products that have progressed to clinical trials and we may never do so. Our ability to produce products that progress to clinical trials is subject to our ability to, among other things:

- continue to have success with our research and development efforts;
- select therapeutic compounds for development;
- obtain the required regulatory approvals; and
- manufacture and market resulting products.

If and when potential lead drug compounds or product candidates are identified through our research programs, they will require significant preclinical and clinical testing prior to regulatory approval in the United States and elsewhere. In addition, we will also need to determine whether any of these potential products can be manufactured in commercial quantities at an acceptable cost. Our efforts may not result in a product that can be marketed. Because of the significant scientific, regulatory and commercial milestones that must be reached for any of our research programs to be successful, any program may be abandoned, even after significant resources have been expended.

#### WE HAVE A HISTORY OF OPERATING LOSSES AND ANTICIPATE FUTURE LOSSES; CONTINUED LOSSES COULD IMPAIR OUR ABILITY TO SUSTAIN OPERATIONS

We have incurred net operating losses every year since our operations began in 1990. As of December 31, 2000, our accumulated deficit was approximately \$149.8 million. Losses have resulted principally from costs incurred in connection with our research and development activities and from general and administrative costs associated with our operations. We expect to incur additional operating losses over the next several years as our research and development efforts and preclinical testing activities are expanded. Substantially all of our revenues to date have been research support payments under the collaboration agreements with Kyowa Hakko and Pharmacia. In 2001, we regained our rights to telomerase inhibitors from Pharmacia. Kyowa Hakko will provide additional research funding through 2001. We may be unsuccessful in entering into any new corporate collaboration that results in revenues. Even if we are able to obtain new collaboration arrangements with third parties, the revenues generated from these arrangements will be insufficient to continue or expand our research activities and otherwise sustain our operations.

We are unable to estimate at this time the level of revenue to be received from the sale of diagnostic products, and do not currently expect to receive significant revenues from the sale of research-use-only kits. Our ability to continue or expand our research activities and otherwise sustain our operations is dependent on our ability, alone or with others to, among other things, manufacture and market therapeutic products.

We may never receive material revenues from product sales or if we do receive revenues, such revenues may not be sufficient to continue or expand our research activities and otherwise sustain our operations.

WE WILL NEED ADDITIONAL CAPITAL TO CONDUCT OUR OPERATIONS AND DEVELOP OUR PRODUCTS, AND OUR ABILITY TO OBTAIN THE NECESSARY FUNDING IS UNCERTAIN

We will require substantial capital resources in order to conduct our operations and develop our products. While we estimate that our existing capital resources, payments under the Kyowa Hakko collaborative agreement, interest income and equipment financing arrangements will be sufficient to fund our current level of operations through March 2003, we cannot guarantee that this will be the case. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for our capital needs in 2001 and beyond;
- continued scientific progress in our research and development programs;
- the magnitude and scope of our research and development programs;
- our ability to maintain and establish strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our progress with preclinical and clinical trials;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- the potential for new technologies and products.

We intend to acquire additional funding through strategic collaborations, public or private equity financings and capital lease transactions. Additional financing may not be available on acceptable terms, or at all. Additional equity financings could result in significant dilution to stockholders. Further, in the event that additional funds are obtained through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves. If sufficient capital is not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs, each of which could have a material adverse effect on our business.

OUR INABILITY TO IDENTIFY AN EFFECTIVE INHIBITOR OF TELOMERASE MAY PREVENT US FROM DEVELOPING A VIABLE CANCER TREATMENT PRODUCT, WHICH WOULD ADVERSELY IMPACT OUR FUTURE BUSINESS PROSPECTS

As a result of our drug discovery efforts to date, we have identified compounds in laboratory studies that demonstrate potential for inhibiting telomerase in humans. However, additional development efforts will be required before we select a lead compound for preclinical development and clinical trials as a telomerase inhibitor for cancer. We will have to conduct additional research before we can select a compound and we may never identify a compound that will enable us to fully develop a commercially viable treatment for cancer.

If and when selected, a lead compound may prove to have undesirable and unintended side effects or other characteristics affecting its safety or effectiveness that may prevent or limit its commercial use. In terms of safety, our discoveries may result in cancer treatment solutions that cause unacceptable side effects for the human body. Our discoveries may also not be as effective as is necessary to market a commercially viable product for the treatment of cancer. As a result, telomerase inhibition may need to be used in conjunction with other cancer therapies. Accordingly, it may become extremely difficult for us to proceed with preclinical and clinical development, to obtain regulatory approval or to market a telomerase inhibitor for the treatment of cancer. If we abandon our research for cancer treatment for any of these reasons or for other reasons, our business prospects would be materially and adversely affected.

IF OUR ACCESS TO NECESSARY TISSUE SAMPLES, INFORMATION OR LICENSED TECHNOLOGIES IS RESTRICTED, WE WILL NOT BE ABLE TO DEVELOP OUR BUSINESS

To continue the research and development of our therapeutic and diagnostic products, we need access to normal and diseased human and other tissue samples, other biological materials and related clinical and other information. We compete with many other companies for these materials and information. We may not be able to obtain or maintain access to these materials and information on acceptable terms, if at all. In addition, government regulation in the United States and foreign countries could result in restricted access to, or prohibiting the use of, human and other tissue samples. If we lose access to sufficient numbers or sources of tissue samples, or if tighter restrictions are imposed on our use of the information generated from tissue samples, our business will be materially harmed.

SOME OF OUR COMPETITORS MAY DEVELOP TECHNOLOGIES THAT ARE SUPERIOR TO OR MORE COST-EFFECTIVE THAN OURS, WHICH MAY IMPACT THE COMMERCIAL VIABILITY OF OUR TECHNOLOGIES AND WHICH MAY SIGNIFICANTLY DAMAGE OUR ABILITY TO SUSTAIN OPERATIONS

The pharmaceutical and biotechnology industries are intensely competitive. We believe that other pharmaceutical and biotechnology companies and research organizations currently engage in or have in the past engaged in efforts related to the biological mechanisms of cell aging and cell immortality, including the study of telomeres, telomerase, human embryonic stem cells and nuclear transfer. In addition, other products and therapies that could compete directly with the products that we are seeking to develop and market currently exist or are being developed by pharmaceutical and biopharmaceutical companies and by academic and other research organizations.

Many companies are also developing alternative therapies to treat cancer and, in this regard, are competitors of ours. Many of the pharmaceutical companies developing and marketing these competing products have significantly greater financial resources and expertise than we do in:

- research and development;
- manufacturing;
- preclinical and clinical testing;
- obtaining regulatory approvals; and
- marketing.

Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. Academic institutions, government agencies and other public and private research organizations may also conduct research, seek patent protection and establish collaborative arrangements for research, clinical development and marketing of products similar to ours. These companies and institutions compete with us in recruiting and retaining qualified scientific and management personnel as well as in acquiring technologies complementary to our programs. There is also competition for access to libraries of compounds to use for screening. Should we fail to secure and maintain access to sufficiently broad libraries of compounds for screening potential targets, our business would be materially harmed.

In addition to the above factors, we expect to face competition in the following areas:

- product efficacy and safety;
- the timing and scope of regulatory consents;
- availability of resources;
- reimbursement coverage;
- price; and
- patent position, including potentially dominant patent positions of others.

As a result of the foregoing, our competitors may develop more effective or more affordable products, or achieve earlier patent protection or product commercialization than us. Most significantly, competitive products may render the products that we develop obsolete.

THE ETHICAL, LEGAL AND SOCIAL IMPLICATIONS OF OUR RESEARCH USING EMBRYONIC STEM CELLS AND NUCLEAR TRANSFER COULD PREVENT US FROM DEVELOPING OR GAINING ACCEPTANCE FOR COMMERCIALLY VIABLE PRODUCTS IN THIS AREA

Our programs in regenerative medicine may involve the use of human embryonic stem cells that would be derived from human embryonic or fetal tissue. The use of human embryonic stem cells gives rise to ethical, legal and social issues regarding the appropriate use of these cells. In the event that our research related to human embryonic stem cells becomes the subject of adverse commentary or publicity, the market price for our common stock could be significantly harmed.

Some groups have voiced opposition to our technology and practices. The concepts of cell regeneration, cell immortality, and genetic cloning have stimulated significant ethical debates in both the social and political arenas. We use human embryonic stem cells derived through a process that uses either donated embryos that are no longer needed following a successful in vitro fertilization procedure or donated fetal material as the starting material. Further, many research institutions, including some of our scientific collaborators, have adopted policies regarding the ethical use of human embryonic and fetal tissue. These policies may have the effect of limiting the scope of research conducted using human embryonic stem cells, resulting in reduced scientific progress. In addition, the United States government and its agencies currently do not fund research which involves the use of human embryonic tissue and may in the future regulate or otherwise restrict or prohibit the public or private use of human embryonic or fetal tissue. Our inability to conduct research using human embryonic stem cells due to such factors as government regulation or otherwise could have a material adverse effect on us. Finally, we acquired Roslin Bio-Med to gain the rights to nuclear transfer technology. The Roslin Institute produced Dolly the sheep in 1997 -- the first mammal cloned from an adult cell in history. Geron acquired exclusive rights to this technology for all areas except human cloning and certain other limited applications. Although we will not be pursuing human reproductive cloning, all of the techniques we continue to develop for use in agricultural cloning and our nuclear transfer work for organ regeneration are directly applicable to human cloning should some other group in the future decide to pursue this avenue. Negative associations with any or all of these practices could:

- harm our ability to establish critical partnerships and collaborations;
- prompt government regulation of our technologies;
- cause delays in our research and development; and
- cause a decrease in the price of our stock.

Also, if regulatory bodies were to ban nuclear transfer processes, our research using nuclear transfer technology could be cancelled and our business could be significantly harmed.

PUBLIC ATTITUDES TOWARDS GENE THERAPY MAY NEGATIVELY AFFECT REGULATORY APPROVAL OR PUBLIC PERCEPTION OF OUR PRODUCTS

The commercial success of our product candidates will depend in part on public acceptance of the use of gene therapies for the prevention or treatment of human diseases. Public attitudes may be influenced by claims that gene therapy is unsafe, and gene therapy may not gain the acceptance of the public or the medical community. Adverse events in the field of gene therapy that have occurred or may occur in the future also may result in greater governmental regulation of our product candidates and potential regulatory delays relating to the testing or approval of our product candidates.

Negative public reaction to gene therapy in the development of certain of our therapies could result in greater government regulation, stricter clinical trial oversight, commercial product labeling requirements of gene therapies, and could cause a decrease in the demand for any products that we may develop. The subject of genetically modified organisms has received negative publicity in Europe, which has aroused public debate.

The adverse publicity in Europe could lead to greater regulation and trade restrictions on imports of genetically altered products. If similar adverse public reaction occurs in the United States, genetic research and resultant products could be subject to greater domestic regulation and could cause a decrease in the demand for our potential products.

EVEN IF WE REACH CLINICAL TRIALS WITH ONE OR MORE OF OUR PRODUCTS, THEY MAY NOT RESULT IN ANY COMMERCIALY VIABLE PRODUCTS

We do not expect to generate any significant revenues from product sales for a period of several years. We may never generate revenues from product sales or become profitable because of a variety of risks inherent in our business, including risks that:

- clinical trials may not demonstrate the safety and efficacy of our products;
- completion of clinical trials may be delayed, or costs of clinical trials may exceed anticipated amounts;
- we may not be able to obtain regulatory approval of our products, or may experience delays in obtaining such approvals;
- we may not be able to manufacture our drugs economically on a commercial scale;
- we and our licensees may not be able to successfully market our products;
- physicians may not prescribe our products, or patients may not accept such products;
- others may have proprietary rights which prevent us from marketing our products; and
- competitors may sell similar, superior or lower-cost products.

IMPAIRMENT OF OUR INTELLECTUAL PROPERTY RIGHTS MAY LIMIT OUR ABILITY TO PURSUE THE DEVELOPMENT OF OUR INTENDED TECHNOLOGIES AND PRODUCTS

Our success will depend on our ability to obtain and enforce patents for our discoveries; however, legal principles for biotechnology patents in the United States and in other countries are not firmly established and the extent to which we will be able to obtain patent coverage is uncertain.

Protection of our proprietary compounds and technology is critically important to our business. Our success will depend in part on our ability to obtain and enforce our patents and maintain trade secrets, both in the United States and in other countries. The patent positions of pharmaceutical and biopharmaceutical companies, including ours, are highly uncertain and involve complex legal and technical questions for which legal principles are not firmly established. We may not continue to develop products or processes that are patentable, and it is possible that patents will not issue from any of our pending applications, including allowed patent applications. Further, our current patents, or patents that issue on pending applications, may be challenged, invalidated or circumvented, and our current or future patent rights may not provide proprietary protection or competitive advantages to us. In the event that we are unsuccessful in obtaining and enforcing patents, our business would be negatively impacted.

Patent applications filed in the United States prior to November 29, 2000, are maintained in secrecy until patents issue. Publication of discoveries in the scientific or patent literature tends to lag behind actual discoveries by at least several months and sometimes several years. Therefore, the persons or entities that we or our licensors name as inventors in our patents and patent applications may not have been the first to invent the inventions disclosed in the patent applications or patents, or file patent applications for these inventions. As a result, we may not be able to obtain patents from discoveries that we otherwise would consider patentable and that we consider to be significant to our future success.

Patent prosecution or litigation may also be necessary to obtain patents, enforce any patents issued or licensed to us or to determine the scope and validity of our proprietary rights or the proprietary rights of another. We may not be successful in any patent prosecution or litigation. Patent prosecution and litigation in general can be extremely expensive and time consuming, even if the outcome is favorable to us. An adverse

outcome in a patent prosecution, litigation or any other proceeding in a court or patent office could subject our business to significant liabilities to other parties, require disputed rights to be licensed from other parties or require us to cease using the disputed technology.

WE MAY BE SUBJECT TO INFRINGEMENT CLAIMS THAT ARE COSTLY TO DEFEND, AND WHICH MAY LIMIT OUR ABILITY TO USE DISPUTED TECHNOLOGIES AND PREVENT US FROM PURSUING RESEARCH AND DEVELOPMENT OR COMMERCIALIZATION OF POTENTIAL PRODUCTS

Our commercial success depends significantly on our ability to operate without infringing patents and proprietary rights of others. Our technologies may infringe the patents or proprietary rights of others. In addition, we may become aware of discoveries and technology controlled by third parties that are advantageous to our research programs. In the event our technologies do infringe on the rights of others or we require the use of discoveries and technology controlled by third parties, we may be prevented from pursuing research, development or commercialization of potential products or may be required to obtain licenses to these patents or other proprietary rights or develop or obtain alternative technologies. We may not be able to obtain alternative technologies or any required license on commercially favorable terms, if at all. If we do not obtain the necessary licenses or alternative technologies, we may be delayed or prevented from pursuing the development of some potential products. Our breach of an existing license or failure to obtain alternative technologies or a license to any technology that we may require to develop or commercialize our products will significantly and negatively affect our business.

Patent law relating to the scope and enforceability of claims in the technology fields in which we operate is still evolving, and the degree of future protection for any of our proprietary rights is highly uncertain. In this regard, patents may not issue from any of our patent applications or our existing patents may be found to be invalid by a court. In addition, our success may become dependent on our ability to obtain licenses for using the patented discoveries of others. We are aware of patent applications and patents that have been filed by others with respect to our technologies and we may have to obtain licenses to use these technologies. Moreover, other patent applications may be granted priority over patent applications that we or any of our licensors have filed. Furthermore, others may independently develop similar or alternative technologies, duplicate any of our technologies or design around the patented technologies we have developed. In the event that we are unable to acquire licenses to critical technologies that we cannot patent ourselves, we may be required to expend significant time and resources to develop alternative technology, and we may not be successful in this regard. If we cannot acquire or develop the necessary technology, we may be prevented from pursuing some of our business objectives. Moreover, one or more of our competitors could acquire or license the necessary technology. Any of these events could materially harm our business.

We may be subject to claims or litigation as a result of entering into license agreements with third parties or infringing on the patents of others. For example, we signed a licensing and sponsored research agreement relating to our research relating to embryonic stem cells with The Johns Hopkins University School of Medicine in August 1997. Prior to signing this agreement, we had been informed by a third party that we and Johns Hopkins University would violate the rights of that third party and another academic institution in doing so. After a review of the correspondence with the third party and Johns Hopkins University, as well as related documents, including an issued United States patent, we believe that both we and Johns Hopkins University have substantial defenses to any claims that might be asserted by the third party. We have agreed to provide indemnification to Johns Hopkins University relating to potential claims. However, any litigation resulting from this matter may divert significant resources, both financial and otherwise, from our research programs. We may be unsuccessful if the matter is litigated. If the outcome of litigation is unfavorable to us, our business could be materially and adversely affected.

MUCH OF THE INFORMATION AND KNOW-HOW THAT IS CRITICAL TO OUR BUSINESS IS NOT PATENTABLE AND WE MAY NOT BE ABLE TO PREVENT OTHERS FROM OBTAINING THIS INFORMATION AND ESTABLISHING COMPETITIVE ENTERPRISES

We sometimes rely on trade secrets to protect our proprietary technology, especially in circumstances in which patent protection is not believed to be appropriate or obtainable. We attempt to protect our proprietary technology in part by confidentiality agreements with our employees, consultants, collaborators and contrac-

tors. We cannot assure you that these agreements will not be breached, that we would have adequate remedies for any breach, or that our trade secrets will not otherwise become known or be independently discovered by competitors, any of which would harm our business significantly.

SOME OF OUR PATENTS AND PATENT APPLICATIONS RELATING TO TELOMERASE MAY BE SUBJECT TO CHALLENGE. IN 1999, THE UNITED STATES PATENT AND TRADEMARK OFFICE SUSPENDED PROSECUTION OF TWO OF OUR PATENT APPLICATIONS. THESE MATTERS COULD JEOPARDIZE OUR ABILITY TO COMMERCIALIZE TELOMERASE PRODUCTS

Our patents and patent applications relating to telomerase are critically important to our development and commercialization of therapeutic and diagnostic products for applications in oncology and regenerative medicine. Patent applications covering cloned human telomerase and its uses are pending in several countries and patent prosecution is ongoing. Although we have been granted patents in the United Kingdom and Switzerland, we have received rejections in certain other countries and we may be unable to overcome those rejections or any others that we may encounter.

In 1999, the United States Patent and Trademark Office suspended prosecution of two of our patent applications relating to cloned human telomerase pending possible declaration of an interference. This event signified that the United States Patent and Trademark Office had determined that at least one other entity had filed a patent application claiming cloned human telomerase or its uses. In an interference, among other things, the United States Patent and Trademark Office seeks to determine who made the claimed invention first; that party typically, although not always, is awarded the patent. Examination of one of our previously suspended cases has now been resumed. This does not mean that the United States Patent and Trademark Office will necessarily issue a patent to us for this subject matter, nor does it preclude the declaration of an interference either before or after such a patent is issued.

Based on the information presently available to us, we believe that we cloned the human telomerase protein prior to any other entity. However, we do not yet have access to other entities' invention records or their patent application files, which are maintained in secrecy by the United States Patent and Trademark Office. We, therefore, do not have access to all pertinent information for this analysis. Moreover, as interferences are typically complex and highly contested legal proceedings subject to appeal, accurately predicting an outcome is not possible, particularly at this stage. An interference would divert significant resources, both financial and otherwise, from our research programs.

If interferences or other challenges to our patents are not resolved promptly in our favor, our existing business relationships could be jeopardized and we could be delayed or prevented from entering into new collaborations or from commercializing telomerase products, which could materially harm our business.

WE DEPEND ON OUR COLLABORATORS TO HELP US COMPLETE THE PROCESS OF DEVELOPING AND TESTING OUR PRODUCTS AND OUR ABILITY TO DEVELOP AND COMMERCIALIZE PRODUCTS MAY BE IMPAIRED OR DELAYED IF OUR COLLABORATIVE PARTNERSHIPS ARE UNSUCCESSFUL

Our strategy for the development, clinical testing and commercialization of our products requires entering into collaborations with corporate partners, licensors, licensees and others. We are dependent upon the subsequent success of these other parties in performing their respective responsibilities and the continued cooperation of our partners. Our collaborators may not cooperate with us or perform their obligations under our agreements with them. We cannot control the amount and timing of our collaborators' resources that will be devoted to our research activities related to our collaborative agreements with them. Our collaborators may choose to pursue existing or alternative technologies in preference to those being developed in collaboration with us.

Our ability to successfully develop and commercialize telomerase inhibition products depends on our corporate alliance with Kyowa Hakko. Our ability to successfully develop and commercialize telomerase diagnostic products depends on our corporate alliance with Roche Diagnostics. Under our collaborative agreements with these collaborators, we rely significantly on them, among other activities, to:

- design and conduct advanced clinical trials in the event that we reach clinical trials;
- fund research and development activities with us;
- pay us fees upon the achievement of milestones; and
- co-promote with us any commercial products that result from our collaborations.

The development and commercialization of products from these collaborations will be delayed if Kyowa Hakko or Roche Diagnostics fail to conduct these collaborative activities in a timely manner or at all. In addition, Kyowa Hakko or Roche Diagnostics could terminate their agreements with us and we may not receive any development or milestone payments. If we do not receive research funds or achieve milestones set forth in the agreements, or if Kyowa Hakko or Roche Diagnostics or any of our future collaborators breach or terminate collaborative agreements with us, our business may be materially harmed.

OUR RELIANCE ON THE RESEARCH ACTIVITIES OF OUR NON-EMPLOYEE SCIENTIFIC ADVISORS AND OTHER RESEARCH INSTITUTIONS, WHOSE ACTIVITIES ARE NOT WHOLLY WITHIN OUR CONTROL, MAY LEAD TO DELAYS IN TECHNOLOGICAL DEVELOPMENTS

We rely extensively and have relationships with scientific advisors at academic and other institutions, some of whom conduct research at our request. These scientific advisors are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us. We have limited control over the activities of these advisors and, except as otherwise required by our collaboration and consulting agreements, can expect only limited amounts of their time to be dedicated to our activities. If our scientific advisors are unable or refuse to contribute to the development of any of our potential discoveries, our ability to generate significant advances in our technologies will be significantly harmed.

In addition, we have formed research collaborations with many academic and other research institutions throughout the world, including the Roslin Institute. These research facilities may have commitments to other commercial and non-commercial entities. We have limited control over the operations of these laboratories and can expect only limited amounts of time to be dedicated to our research goals.

THE LOSS OF KEY PERSONNEL COULD SLOW OUR ABILITY TO CONDUCT RESEARCH AND DEVELOP PRODUCTS

Our future success depends to a significant extent on the skills, experience and efforts of our executive officers and key members of our scientific staff. Competition for personnel is intense and we may be unable to retain our current personnel or attract or assimilate other highly qualified management and scientific personnel in the future. The loss of any or all of these individuals could harm our business and might significantly delay or prevent the achievement of research, development or business objectives.

We also rely on consultants and advisors, including the members of our Scientific Advisory Board, who assist us in formulating our research and development strategy. We face intense competition for qualified individuals from numerous pharmaceutical, biopharmaceutical and biotechnology companies, as well as academic and other research institutions. We may not be able to attract and retain these individuals on acceptable terms. Failure to do so would materially harm our business.

WE MAY NOT BE ABLE TO OBTAIN OR MAINTAIN SUFFICIENT INSURANCE ON COMMERCIALY REASONABLE TERMS OR WITH ADEQUATE COVERAGE AGAINST POTENTIAL LIABILITIES IN ORDER TO PROTECT OURSELVES AGAINST PRODUCT LIABILITY CLAIMS

Our business exposes us to potential product liability risks that are inherent in the testing, manufacturing and marketing of human therapeutic and diagnostic products. We may become subject to product liability claims if the use of our products is alleged to have injured subjects or patients. This risk exists for products tested in human clinical trials as well as products that are sold commercially. We currently have no clinical trial liability insurance and we may not be able to obtain and maintain this type of insurance for any of our

clinical trials. In addition, product liability insurance is becoming increasingly expensive. As a result, we may not be able to obtain or maintain product liability insurance in the future on acceptable terms or with adequate coverage against potential liabilities which could have a material adverse effect on us.

BECAUSE WE OR OUR COLLABORATORS MUST OBTAIN REGULATORY APPROVAL TO MARKET OUR PRODUCTS IN THE UNITED STATES AND FOREIGN JURISDICTIONS, WE CANNOT PREDICT WHETHER OR WHEN WE WILL BE PERMITTED TO COMMERCIALIZE OUR PRODUCTS

Federal, state and local governments in the United States and governments in other countries have significant regulations in place that govern many of our activities. The preclinical testing and clinical trials of the products that we develop ourselves or that our collaborators develop are subject to intense government regulation and may prevent us from creating commercially viable products from our discoveries. In addition, the sale by us or our collaborators of any commercially viable product will be subject to government regulation from several standpoints, including the processes of:

- manufacturing;
- advertising and promoting;
- selling and marketing;
- labeling; and
- distributing.

We may not obtain regulatory approval for the products we develop and our collaborators may not obtain regulatory approval for the products they develop. Regulatory approval may also entail limitations on the indicated uses of a proposed product. Because certain of our product candidates involve the application of new technologies and may be based upon a new therapeutic approach, such products may be subject to substantial additional review by various government regulatory authorities, and, as a result, we may obtain regulatory approvals for such products more slowly than for products based upon more conventional technologies. If, and to the extent that, we are unable to comply with these regulations, our ability to earn revenues will be materially and negatively impacted.

The regulatory process, particularly for biopharmaceutical products like ours, is uncertain, can take many years and requires the expenditure of substantial resources. Any product that we or our collaborative partners develop must receive all relevant regulatory agency approvals or clearances, if any, before it may be marketed in the United States or other countries. Generally, biological drugs and non-biological drugs are regulated more rigorously than medical devices. In particular, human pharmaceutical therapeutic products, including a telomerase inhibitor, are subject to rigorous preclinical and clinical testing and other requirements by the Food and Drug Administration in the United States and similar health authorities in foreign countries. The regulatory process, which includes extensive preclinical testing and clinical trials of each product in order to establish its safety and efficacy, is uncertain, can take many years and requires the expenditure of substantial resources.

Data obtained from preclinical and clinical activities is susceptible to varying interpretations that could delay, limit or prevent regulatory agency approvals or clearances. In addition, delays or rejections may be encountered based upon changes in regulatory agency policy during the period of product development and/or the period of review of any application for regulatory agency approval or clearance for a product. Delays in obtaining regulatory agency approvals or clearances could:

- significantly harm the marketing of any products that we or our collaborators develop;
- impose costly procedures upon our activities or the activities of our collaborators;
- diminish any competitive advantages that we or our collaborative partners may attain; or
- adversely affect our ability to receive royalties and generate revenues and profits.

Even if we commit the necessary time and resources, both economic and otherwise, the required regulatory agency approvals or clearances may not be obtained for any products developed by or in collaboration with us. If regulatory agency approval or clearance for a new product is obtained, this approval or clearance may entail limitations on the indicated uses for which it may be marketed that could limit the potential commercial use of the product. Furthermore, approved products and their manufacturers are subject to continual review, and discovery of previously unknown problems with a product or its manufacturer may result in restrictions on the product or manufacturer, including withdrawal of the product from the market. Failure to comply with regulatory requirements can result in severe civil and criminal penalties, including but not limited to:

- recall or seizure of products;
- injunction against manufacture, distribution, sales and marketing; and
- criminal prosecution.

The imposition of any of these penalties could significantly impair our business, financial condition and results of operations.

TO BE SUCCESSFUL, OUR PRODUCTS MUST BE ACCEPTED BY THE HEALTH CARE COMMUNITY, WHICH CAN BE VERY SLOW TO ADOPT OR UNRECEPTIVE TO NEW TECHNOLOGIES AND PRODUCTS

Our products and those developed by our collaborative partners, if approved for marketing, may not achieve market acceptance since physicians, patients or the medical community in general may decide to not accept and utilize these products. The products that we are attempting to develop may represent substantial departures from established treatment methods and will compete with a number of traditional drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any of our developed products will depend on a number of factors, including:

- our establishment and demonstration to the medical community of the clinical efficacy and safety of our product candidates;
- our ability to create products that are superior to alternatives currently on the market;
- our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and
- reimbursement policies of government and third-party payors.

If the health care community does not accept our products for any of the foregoing reasons, or for any other reason, our business would be materially harmed.

THE REIMBURSEMENT STATUS OF NEWLY-APPROVED HEALTH CARE PRODUCTS IS UNCERTAIN AND FAILURE TO OBTAIN REIMBURSEMENT APPROVAL COULD SEVERELY LIMIT THE USE OF OUR PRODUCTS

Significant uncertainty exists as to the reimbursement status of newly approved health care products, including pharmaceuticals. If we fail to generate adequate third party reimbursement for the users of our potential products and treatments, then we may be unable to maintain price levels sufficient to realize an appropriate return on our investment in product development.

In both domestic and foreign markets, sales of our products, if any, will depend in part on the availability of reimbursement from third-party payors, examples of which include:

- government health administration authorities;
- private health insurers;
- health maintenance organizations; and
- pharmacy benefit management companies.

Both federal and state governments in the United States and foreign governments continue to propose and pass legislation designed to contain or reduce the cost of health care through various means. Legislation and regulations affecting the pricing of pharmaceuticals and other medical products may change or be adopted before any of our potential products are approved for marketing. Cost control initiatives could decrease the price that we receive for any product we may develop in the future. In addition, third-party payors are increasingly challenging the price and cost-effectiveness of medical products and services and any of our potential products and treatments may ultimately not be considered cost effective by these third parties. Any of these initiatives or developments could materially harm our business.

**OUR ACTIVITIES INVOLVE HAZARDOUS MATERIALS AND IMPROPER HANDLING OF THESE MATERIALS BY OUR EMPLOYEES OR AGENTS COULD EXPOSE US TO SIGNIFICANT LEGAL AND FINANCIAL PENALTIES**

Our research and development activities involve the controlled use of hazardous materials, chemicals and various radioactive compounds. As a consequence, we are subject to numerous environmental and safety laws and regulations, including those governing laboratory procedures, exposure to blood-borne pathogens and the handling of biohazardous materials. We may be required to incur significant costs to comply with current or future environmental laws and regulations and may be adversely affected by the cost of compliance with these laws and regulations.

Although we believe that our safety procedures for using, handling, storing and disposing of hazardous materials comply with the standards prescribed by state and federal regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, state or federal authorities could curtail our use of these materials and we could be liable for any civil damages that result, the cost of which could be substantial. Further, any failure by us to control the use, disposal, removal or storage of, or to adequately restrict the discharge of, or assist in the cleanup of, hazardous chemicals or hazardous, infectious or toxic substances could subject us to significant liabilities, including joint and several liability under certain statutes, and any liability could exceed our resources and could have a material adverse effect on our business, financial condition and results of operations. Additionally, an accident could damage our research and manufacturing facilities and operations.

Additional federal, state and local laws and regulations affecting us may be adopted in the future. We may incur substantial costs to comply with and substantial fines or penalties if we violate any of these laws or regulations.

**OUR STOCK PRICE HAS HISTORICALLY BEEN VERY VOLATILE**

Stock prices and trading volumes for many biopharmaceutical companies fluctuate widely for a number of reasons, including some reasons which may be unrelated to their businesses or results of operations such as media coverage, legislation and regulatory measures and the activities of various protest groups or organizations. This market volatility, as well as general domestic or international economic, market and political conditions, could materially and adversely affect the market price of our common stock and your return on your investment.

Historically, our stock price has been extremely volatile. Between January 1998 and December 31, 2000, our stock has traded as high as \$75.88 per share and as low as \$3.50 per share. The significant market price fluctuations of our common stock are due to a variety of factors, including:

- depth of the market for the common stock;
- the experimental nature of our prospective products;
- fluctuations in our operating results;
- market conditions relating to the biopharmaceutical and pharmaceutical industries;
- any announcements of technological innovations, new commercial products or clinical progress or lack thereof by us, our collaborative partners or our competitors; and

- announcements concerning regulatory developments, developments with respect to proprietary rights and our collaborations.

In addition, the stock market is subject to other factors outside our control that can cause extreme price and volume fluctuations. Securities class action litigation has often been brought against companies, including many biotechnology companies, when they experience volatility in the market price of their securities. Litigation brought against us could result in substantial costs and a diversion of management's attention and resources, which could adversely affect our business.

THE SALE OF A SUBSTANTIAL NUMBER OF SHARES, INCLUDING SHARES THAT WILL BECOME ELIGIBLE FOR SALE IN THE NEAR FUTURE, MAY ADVERSELY AFFECT THE MARKET PRICE FOR OUR COMMON STOCK

Sales of substantial number of shares of our common stock in the public market could significantly and negatively affect the market price for our common stock. As of December 31, 2000, we had approximately 21,780,812 shares of common stock outstanding. Of these shares, approximately 10,284,534 shares were issued (including shares issuable upon conversion or exercise of convertible notes or warrants) since December 1998 pursuant to private placements. Of these shares, approximately 9,423,463 shares have been registered pursuant to shelf registration statements and therefore may be resold (if not sold prior to the date hereof) in the public market and approximately 861,071 of the remaining shares may be resold pursuant to Rule 144 into the public markets as early as March 9, 2002, upon the expiration of a lockup agreement with us.

OUR UNDESIGNATED PREFERRED STOCK MAY INHIBIT POTENTIAL ACQUISITION BIDS; THIS MAY ADVERSELY AFFECT THE MARKET PRICE OF OUR COMMON STOCK AND THE VOTING RIGHTS OF THE HOLDERS OF COMMON STOCK

Our certificate of incorporation provides our Board of Directors with the authority to issue up to 3,000,000 shares of undesignated preferred stock and to determine the rights, preferences, privileges and restrictions of these shares without further vote or action by the stockholders. As of the date of this Form 10-K, the Board of Directors still has authority to designate and issue up to 3,000,000 shares of preferred stock. The rights of the holders of common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. The issuance of shares of preferred stock may delay or prevent a change in control transaction without further action by our stockholders. As a result, the market price of our common stock may be adversely affected. The issuance of preferred stock may also result in the loss of voting control by others.

PROVISIONS IN OUR CHARTER AND BYLAWS, AND PROVISIONS OF DELAWARE LAW, MAY INHIBIT POTENTIAL ACQUISITION BIDS FOR US, WHICH MAY PREVENT HOLDERS OF OUR COMMON STOCK FROM BENEFITING FROM WHAT THEY MAY BELIEVE MAY BE THE POSITIVE ASPECTS OF ACQUISITIONS AND TAKEOVERS

In addition to the undesignated preferred stock, provisions of our charter documents and bylaws may make it substantially more difficult for a third party to acquire control of us and may prevent changes in our management, including provisions that:

- prevent stockholders from taking actions by written consent;
- divide the Board of Directors into separate classes with terms of office that are structured to prevent all of the directors from being elected in any one year; and
- set forth procedures for nominating directors and submitting proposals for consideration at stockholders' meetings.

Provisions of Delaware law may also inhibit potential acquisition bids for us or prevent us from engaging in business combinations.

Either collectively or individually, these provisions may prevent holders of our common stock from benefiting from what they may believe are the positive aspects of acquisitions and takeovers, including the potential realization of a higher rate of return on their investment from these types of transactions.

## ITEM 2. PROPERTIES

Geron currently leases approximately 41,000 square feet of office space at 194 Constitution Drive, 200 Constitution Drive and 230 Constitution Drive, Menlo Park, California. The lease for the office space expires in January 2002, with an option to renew the lease for two additional periods of two and one-half years each. We intend to use this space for general office and biomedical research and development purposes. We also currently lease 900 square feet of office space at Roslin Biotechnology Centre, Roslin, Midlothian, United Kingdom. The lease for the office space expires in May 2005. We believe that the existing facilities are adequate to meet our requirements for the near term.

## ITEM 3. LEGAL PROCEEDINGS

Geron is not a party to any material legal proceedings.

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

None

## PART II

## ITEM 5. MARKET FOR THE REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

## MARKET INFORMATION

Geron's common stock trades on the Nasdaq Stock Market(R) under the symbol GERN. The high and low closing sales prices (excluding retail markup, markdowns and commissions) of Geron's stock for the years ending December 31, 2000 and 1999 are as follows:

	HIGH -----	LOW -----
Year ended December 31, 2000		
First quarter.....	\$68.000	\$13.000
Second quarter.....	\$35.000	\$16.000
Third quarter.....	\$33.500	\$21.000
Fourth quarter.....	\$24.625	\$14.750
Year ended December 31, 1999		
First quarter.....	\$13.188	\$ 9.875
Second quarter.....	\$12.875	\$ 9.250
Third quarter.....	\$12.250	\$10.500
Fourth quarter.....	\$14.875	\$ 9.500

As of December 31, 2000, there were approximately 769 stockholders of record. Geron is engaged in a highly dynamic industry, which often results in significant volatility of our common stock price.

## DIVIDEND POLICY

Geron has never paid cash dividends on our capital stock and does not anticipate paying cash dividends in the foreseeable future, but intends to retain our capital resources for reinvestment in our business. Any future determination to pay cash dividends will be at the discretion of the Board of Directors and will be dependent upon Geron's financial condition, results of operations, capital requirements and other factors as the Board of Directors deems relevant.

## ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

	YEARS ENDED DECEMBER 31,				
	2000	1999	1998	1997	1996
	(IN THOUSANDS, EXCEPT SHARE AND PER SHARE DATA)				
<b>CONSOLIDATED STATEMENT OF OPERATIONS DATA:</b>					
Revenues from collaborative agreements.....	\$ 6,500	\$ 5,244	\$ 6,706	\$ 7,175	\$ 5,235
License fees and royalties.....	109	168	91	78	58
Total revenues.....	6,609	5,412	6,797	7,253	5,293
Operating expenses:					
Research and development.....	23,548	20,571	15,619	15,139	14,260
Acquired research technology....	--	23,403	--	--	--
General and administrative.....	9,273	5,574	3,769	3,120	3,161
Total operating expenses.....	32,821	49,548	19,388	18,259	17,421
Loss from operations.....	(26,212)	(44,136)	(12,591)	(11,006)	(12,128)
Interest and other income.....	5,922	3,263	2,666	1,757	1,826
Interest and other expense.....	(12,284)	(5,503)	(907)	(392)	(385)
Loss before cumulative effect of a change in accounting principle.....	(32,574)	(46,376)	(10,832)	(9,641)	(10,687)
Cumulative effect of a change in accounting principle.....	(13,259)	--	--	--	--
Net loss.....	(45,833)	(46,376)	(10,832)	(9,641)	(10,687)
Accretion of redemption value of redeemable convertible preferred stock.....	--	(73)	(578)	--	--
Net loss applicable to common stockholders.....	\$ (45,833)	\$ (46,449)	\$ (11,410)	\$ (9,641)	\$ (10,687)
Basic and diluted net loss per share:					
Loss per share before cumulative effect of a change in accounting principle.....	\$ (1.56)	\$ (3.00)	\$ (1.00)	\$ (0.91)	\$ (2.23)
Cumulative effect of a change in accounting principle.....	(0.64)	--	--	--	--
Net loss per share.....	\$ (2.20)	\$ (3.00)	\$ (1.00)	\$ (0.91)	\$ (2.23)
Shares used in computing net loss per share.....	20,869,791	15,489,035	11,439,084	10,551,054	4,789,388

	DECEMBER 31,				
	2000	1999	1998	1997	1996
	(DOLLARS IN THOUSANDS)				
<b>CONSOLIDATED BALANCE SHEET DATA:</b>					
Cash, cash equivalents and short-term investments.....	\$ 33,025	\$ 39,287	\$ 24,469	\$ 21,597	\$ 24,269
Working capital.....	26,470	32,481	22,261	19,739	21,468
Total assets.....	114,030	63,701	44,456	26,056	28,788
Noncurrent liabilities.....	41,987	29,527	8,101	1,250	1,644
Redeemable convertible preferred stock.....	--	--	3,610	--	--
Accumulated deficit.....	(149,802)	(103,969)	(57,520)	(46,110)	(36,469)
Total stockholders' equity.....	63,918	26,226	29,191	21,066	23,591

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

## OVERVIEW

This Form 10-K contains forward-looking statements that involve risks and uncertainties. We use words such as "anticipate," "believe," "plan," "expect," "future," "intend" and similar expressions to identify forward-looking statements. These statements appear throughout the Form 10-K and are statements regarding our intent, belief, or current expectations, primarily with respect to our operations and related industry developments. You should not place undue reliance on these forward-looking statements, which apply only as of the date of this Form 10-K. Our actual results could differ materially from those anticipated in these forward-looking statements for many reasons, including the risks faced by us and described in the section of Item 1 titled "Additional Factors That May Affect Future Results," and elsewhere in this Form 10-K.

The following discussion should be read in conjunction with the audited consolidated financial statements and notes thereto included in Part I, Item 8 of this Form 10-K.

We are a biopharmaceutical company focused on discovering, developing and commercializing therapeutic and diagnostic products for applications in oncology and regenerative medicine, and research tools for drug discovery. Our product development programs are based upon three patented core technologies: telomerase, human embryonic stem cells and nuclear transfer.

Since inception, substantially all of our revenues have been generated from license and research agreements with collaborators. In addition, we receive license payments and royalties from license and marketing agreements with various diagnostic and research tool collaborators. We recognize revenue from the license and research agreements with collaborators as the related research and development costs are incurred under the collaborative agreements.

In January and February 2000, the Company extended its three-way License and Research Collaboration Agreement with Pharmacia and Kyowa Hakko, respectively. The agreement extends the research and compound selection periods one additional year each, to March 2001 and March 2002, respectively. In 2000, we received \$3.8 million from Pharmacia and \$2.0 million from Kyowa Hakko as a result of the extensions.

In March 2000, we sold a total of 380,855 shares of our common stock and 300,000 warrants to purchase our common stock to a single investor for \$9.0 million. We structured the sale of securities in two parts. We priced the first \$6.4 million of common stock at \$50.32 per share, and 200,000 warrants are exercisable at \$67.09 per share. We priced the remaining \$2.6 million of common stock at \$10.25 per share, and the remaining 100,000 warrants are exercisable at \$12.50 per share. The common stock and the stock underlying the warrants are not registered for resale and are subject to a two-year prohibition on sale by agreement. As of December 31, 2000, all of the warrants were outstanding.

During the first quarter of 2000, institutional investors exercised series A warrants to purchase 625,000 shares of our common stock, series B warrants to purchase 625,000 shares of our common stock and series C warrants to purchase 1,100,000 shares of our common stock. In total, we received \$28.8 million in proceeds from the exercise of these warrants.

In the first quarter of 2000, an institutional investor converted an aggregate principal amount of \$6.25 million plus accrued interest of series C convertible debentures into 615,069 shares of our common stock. In addition, an institutional investor converted an aggregate principal amount of \$3.0 million of series B convertible debentures into 300,000 shares of our common stock.

In June 2000, we sold \$25.0 million in series D zero coupon convertible debentures and warrants to purchase 834,836 shares of common stock to an institutional investor. The debentures are convertible at any time by the holder at a fixed conversion price of \$29.95 per share. We can convert the debentures at any time if our common stock has traded at a certain premium to the fixed conversion price for five consecutive trading days. If unconverted, the debentures have a maturity date of June 29, 2003. The warrant to purchase 834,836 shares of common stock is exercisable at \$37.43 per share at the option of the holder until December 29, 2001.

In September 2000, we entered into an agreement with an institutional investor for an equity financing facility covering the sale of up to \$50.0 million of our common stock over 24 months. The shares will be sold at our discretion at a discount to the then current market price of our common stock on the day of sale. We control the amount and timing of each sale of stock.

In October 2000, we sold \$2.5 million of our common stock under the equity line financing facility. The financing was made pursuant to an effective shelf registration previously filed with the Securities and Exchange Commission in April 2000.

In January 2001, we and Pharmacia agreed to terminate our license and research collaboration agreement. Pharmacia returned all product rights for telomerase inhibitors to us. We plan to continue our development work on compounds that inhibit telomerase for applications in cancer chemotherapy. The extension agreement with Kyowa Hakko remains unchanged.

Our results of operations have fluctuated from period to period and may continue to fluctuate in the future based upon the timing and composition of funding under our various collaborative agreements, as well as the progress of our research and development efforts and variations in the level of expenses related to developmental efforts during any given period. Results of operations for any period may be unrelated to results of operations for any other period. In addition, historical results should not be viewed as indicative of future operating results. We are subject to risks common to companies in our industry and at our stage of development, including risks inherent in our research and development efforts, reliance upon our collaborative partners, enforcement of our patent and proprietary rights, need for future capital, potential competition and uncertainty of regulatory approvals or clearances. In order for a product to be commercialized based on our research, we and our collaborators must conduct preclinical tests and clinical trials, demonstrate the efficacy and safety of our product candidates, obtain regulatory approvals or clearances and enter into manufacturing, distribution and marketing arrangements, as well as obtain market acceptance. We do not expect to receive revenues or royalties based on therapeutic products for a period of years, if at all.

#### RESULTS OF OPERATIONS

##### Revenues

We recognized revenues from collaborative agreements of \$6.5 million in fiscal 2000 compared to \$5.2 million in fiscal 1999 and \$6.7 million in fiscal 1998. Revenues in 2000, 1999 and 1998 represented research support payments from our collaborative agreements with Kyowa Hakko and Pharmacia. Declining revenues in 1999 were a result of reduced research funding from Kyowa Hakko as contractually agreed in 1998. Increase in revenues in 2000 were a result of the extension of our three-way agreement with Kyowa Hakko and Pharmacia (terminated in January 2001). We recognize revenue under collaboration agreements as we incur the related research and development costs. We received annual funding payments of \$2.0 million, none and \$1.0 million under the Kyowa Hakko agreement in 2000, 1999 and 1998, respectively. We received funding payments totaling \$5.0 million each in fiscal 2000, 1999 and 1998 under the Pharmacia agreement. We expect revenues from collaborative agreements to decrease in 2001 as compared to 2000 as a result of regaining our rights from Pharmacia.

We receive license payments and royalties from license and marketing agreements with various diagnostic and research tool collaborators. We received a license fee payment of \$75,000 in 1999 under our product marketing agreement with Clontech. We did not receive any license fee payments in 2000 or 1998. In fiscal 2000, we received \$80,000 in royalties on the sale of diagnostic kits to the research-use-only market from Intergen, Kyowa Medex, Roche Diagnostics and PharMingen compared to \$85,000 received in fiscal 1999 and \$91,000 received in fiscal 1998. In 2000, we also recognized \$29,000 in shared profits from sales of cell-based research products from Clontech compared to \$9,000 in fiscal 1999. Sales of these cell-based research products began in September 1999.

### Research and Development Expenses

Research and development expenses were \$23.5 million, \$20.6 million and \$15.6 million for the years ended December 31, 2000, 1999 and 1998, respectively. The increase in 2000 from 1999 was primarily the result of increased contract research expenses of \$1.4 million, increased license fees for research technology of \$880,000 and higher scientific supplies of \$640,000. The increase in 1999 from 1998 was primarily the result of the amortization of the research funding obligation to the Roslin Institute of \$1.9 million, increased license fees for research technology of \$1.0 million and increased personnel related costs of \$800,000. We expect research and development expenses to increase significantly in the future as a result of the continued development of our therapeutic and diagnostic programs.

### Acquired Research Expenses

Acquired research expenses were the result of the acquisition of Roslin Bio-Med in May 1999. We used the purchase method of accounting. We allocated the purchase price between the acquired basic research in the form of a license to the nuclear transfer technology, the research agreement with the Roslin Institute and the net tangible assets of Roslin Bio-Med. We expensed the value of the nuclear transfer technology of \$23.4 million as acquired research expense and capitalized the value of the research agreement of \$17.2 million as an intangible asset. The total purchase price of \$44.4 million also included acquisition costs of \$2.9 million.

The license to the nuclear transfer technology was the only significant asset of Roslin Bio-Med. We intend to enhance the research and development of the nuclear transfer technology by combining it with our other technology platforms. Before we can enter into clinical trials for a potential commercial application, we must expand the research and development of the combined technology platforms. Future products, if any, may take several years to develop and commercialize and will require substantial additional funds. We may never be able to create a commercial product from the nuclear transfer technology. Although we have the right to sublicense the nuclear transfer technology, we expect any future collaborations or sublicenses to fund future research and development and not recover the cost of the basic nuclear transfer technology that we acquired. We are using this technology for one research project. We have concluded that this technology has no alternative future use, and accordingly, have expensed the value of the acquired research technology at the time of the acquisition.

### General and Administrative Expenses

General and administrative expenses were \$9.3 million, \$5.6 million and \$3.8 million for the years ended December 31, 2000, 1999 and 1998, respectively. The increase in 2000 from 1999 was primarily the result of increased business consulting expenses of \$3.0 million. The increase in 1999 from 1998 was primarily the result of increased business consulting expenses of \$600,000, increased personnel related costs of \$600,000, increased facilities maintenance costs of \$300,000 and increased legal and accounting expenses of \$300,000.

### Interest and Other Income

Interest income was \$5.4 million, \$2.3 million and \$1.9 million for the years ended December 31, 2000, 1999 and 1998, respectively. The increase in 2000 and 1999 was due to higher average cash and investment balances as a result of investing proceeds from the sale of debt and equity securities in 2000 and 1999. Interest earned in the future will depend on any future funding cycles and prevailing interest rates. We also received \$400,000, \$1.0 million and \$730,000 in research payments under government grants for the years ended December 31, 2000, 1999 and 1998, respectively. We expect income from government grants to decrease in the future.

### Interest and Other Expense

Interest and other expense was \$12.3 million, \$5.5 million and \$907,000 for the years ended December 31, 2000, 1999 and 1998, respectively. The increase in interest and other expense in 2000 and 1999 over 1998 was primarily the result of the various convertible debenture financings during 2000 and 1999. In

connection with the issuance of series D convertible debentures in June 2000, we recorded approximately \$616,000 in interest expense for the difference between the fair value of our common stock on the date of signing and the conversion price of the debentures. In addition, we recorded the \$10.5 million value of the warrant issued with the series D convertible debentures as a charge to interest expense and an increase to additional-paid-in capital.

At the end of 2000, we adopted a new accounting principle as required by the Financial Accounting Standards Board. This new principle required us to modify the way we calculated the interest expense recognized for the difference between the fair value of our common stock on the closing date of the convertible debenture financing and the conversion price of the debentures. We were required to apply this new accounting principle retroactively to the September 1999 series C convertible debenture issuance. As a result of adopting this new accounting principle, we recognized \$13.3 million in imputed non-cash interest expense and have recorded it as a cumulative effect of a change in accounting principle.

In connection with the issuance of series C convertible debentures in September 1999, we recorded approximately \$305,000 in interest expense for the difference between the fair value of our common stock on the date of signing and the conversion price of the debentures. In addition, we recognized \$625,000 in interest expense related to a potential penalty on redemption up through the date our stockholders authorized the additional shares to be issued for the full conversion of the series C convertible debentures and the exercise of the series C warrants. We determined the value of the series C warrants to be \$2.7 million. We recorded this value as an increase to additional paid-in-capital with a related charge to interest expense.

In connection with the issuance of series B convertible debentures in June 1999, we recorded approximately \$563,000 in interest expense for the difference between the fair value of our common stock on the date of signing and the conversion price of the debentures.

In December 1998, we recorded approximately \$562,000 in interest expense in connection with the sale of series A convertible debentures, for the difference between the fair market value of our common stock on the date of issuance and the conversion price of the series A convertible debentures. We recorded the series A convertible debentures at a discount and were amortizing the debentures to the redemption amount prior to the conversion of the debentures into common stock.

#### Net Loss

Losses before cumulative effect of a change in accounting principle were \$32.6 million, \$46.4 million and \$10.8 million for the years ended December 31, 2000, 1999 and 1998, respectively. Net losses after cumulative effect of a change in accounting principle were \$45.8 million, \$46.4 million and \$10.8 million for the year ended December 31, 2000, 1999 and 1998, respectively. The net loss for 2000 was the net result of increased operating expenses, interest expense and cumulative effect of a change in accounting principle which was offset by the decrease in acquisition costs. The increase in net loss for 1999 was primarily the result of the charge for acquired research technology in connection with the acquisition of Roslin Bio-Med and the amortization of the research funding obligation to the Roslin Institute.

#### LIQUIDITY AND CAPITAL RESOURCES

Cash, cash equivalents and investments at December 31, 2000 were \$95.8 million compared to \$42.9 million at December 31, 1999 and \$40.4 million at December 31, 1998. We have an investment policy to invest these funds in liquid, investment grade securities, such as interest-bearing money market funds, corporate notes, commercial paper and municipal securities. The increase in cash, cash equivalents and investments in 2000 was primarily the result of the exercise of warrants, the sale of equity to a private investor and the sale of convertible debentures. The increase in cash, cash equivalents and investments in 1999 was primarily the result of the sale of convertible debentures in June 1999 and September 1999.

Net cash used in operations was \$13.6 million in 2000 and 1999. Cash used in operations in 2000 was primarily the result of the net loss for the year of \$45.8 million offset partially by non-cash charges including \$24.4 million of interest arising from the beneficial conversion feature of convertible debentures and the value

of warrants issued with convertible debentures. We expect that our net cash used in operations will increase in 2001 as a result of increased research and development expenditures.

Through December 31, 2000, we have invested approximately \$11.0 million in property and equipment, of which approximately \$7.7 million was financed through equipment financing. Minimum annual payments due under the equipment financing facility are expected to total \$923,000, \$803,000, \$216,000 and \$11,000 in 2001, 2002, 2003 and 2004, respectively. As of December 31, 2000, we had approximately \$1.5 million available for borrowing from our equipment financing facility. The drawdown period under the equipment financing facility expires on October 31, 2001. We intend to renew the commitment for a new equipment financing facility in 2001 to further fund equipment purchases. If we are unable to renew the commitment, then we will need to spend our own resources for equipment purchases.

We have agreed to fund scientific research at academic and research institutions, including the Roslin Institute. Under these research arrangements, we are obligated to make minimum annual payments of approximately \$4.1 million and \$3.1 million in 2001 and 2002, respectively. We intend to continue to maintain and develop relationships with academic and research institutions.

In 2000, Kyowa Hakko and Pharmacia both extended their research funding commitment for an additional year. We received \$2.0 million and \$3.8 million of additional funding from Kyowa Hakko and Pharmacia, respectively, in 2000 as a result of the extension. In January 2001, we and Pharmacia agreed to terminate the license and research collaboration agreement. Pharmacia returned all product rights for telomerase inhibitors to us. We will seek further funding through other strategic collaborations, public or private equity financing, or other financing sources.

In December 1998, we sold \$15.0 million in convertible zero coupon debentures and warrants to purchase 1,250,000 shares of our common stock to investment funds managed by three institutional investors. We received one-half of the proceeds upon signing the agreement which resulted in the issuance of \$7.5 million series A convertible debentures and warrants to purchase 625,000 shares of our common stock. The series A warrants are exercisable at \$12.00 per share by the holders of series A convertible debentures. During 1999, all of the series A convertible debentures converted into 750,000 shares of our common stock at \$10.00 per share. In March 2000, we received proceeds of \$7.5 million from the exercise of all of the series A warrants. As of December 31, 2000, none of series A convertible debentures or series A warrants were outstanding.

In June 1999, we sold \$7.5 million of our series B convertible debentures and warrants to purchase an additional 625,000 shares of our common stock. The series B debentures are convertible at any time by the holders at a fixed conversion price of \$10.00 per share. The series B warrants are exercisable at \$12.00 per share by the holders of series B convertible debentures. During 1999, \$4.5 million of principal of series B convertible debentures converted into 450,000 shares of our common stock at \$10.00 per share. In March 2000, the remaining \$3.0 million of principal of series B convertible debentures converted into 300,000 shares of our common stock at \$10.00 per share. In addition, we received proceeds of \$7.5 million from the exercise of all of the series B warrants. As of December 31, 2000, none of the series B convertible debentures or series B warrants were outstanding.

In September 1999, we sold \$12.5 million in series C convertible two-percent coupon debentures and warrants to purchase 1,100,000 shares of our common stock to an institutional investor. The debentures are convertible at any time by the holder at a fixed conversion price of \$10.25 per share. We can convert the debentures when our common stock has traded at a certain premium to the fixed conversion price for ten consecutive trading days. If unconverted, the series C convertible debentures have a maturity date of September 29, 2002. The series C warrants to purchase 1,000,000 shares of our common stock are exercisable at \$12.50 per share and the series C warrants to purchase 100,000 shares of our common stock are exercisable at \$12.75 per share. We determined the value of the series C warrants to be approximately \$2.7 million and recorded this amount as interest expense. In March 2000, \$6.3 million of principal of series C convertible debentures converted into approximately 615,000 shares of our common stock. In addition, we received proceeds of \$13.8 million from the exercise of all of the series C warrants. As of December 31, 2000, \$6.3 million of principal of series C convertible debentures and none of the series C warrants were outstanding.

In March 2000, we sold a total of 380,855 shares of our common stock and warrants to purchase 300,000 shares of our common stock to a single investor for \$9.0 million. We structured the sale of securities in two parts. We priced the first \$6.4 million of common stock at \$50.32 per share, and 200,000 warrants are exercisable at \$67.09 per share. We priced the remaining \$2.6 million of common stock at \$10.25 per share, and the remaining 100,000 warrants are exercisable at \$12.50 per share. The warrants are exercisable through February 2010. The common stock and the stock underlying the warrants are not registered for resale and are subject to a two-year prohibition on sale by agreement. As of December 31, 2000, all of the warrants were outstanding.

In June 2000, we sold \$25.0 million in series D zero coupon convertible debentures and warrants to purchase 834,836 shares of our common stock to an institutional investor. The debentures are convertible at any time by the holder at a fixed conversion price of \$29.95 per share. We can convert the debentures at any time if our common stock has traded at a certain premium to the fixed conversion price for five consecutive trading days. If unconverted, the debentures have a maturity date of June 29, 2003. The warrants to purchase 834,836 shares of common stock are exercisable at \$37.43 per share at the option of the holder through December 2001. We determined the value of the series D warrants to be approximately \$10.5 million and recorded this amount as interest expense. As of December 31, 2000, all of the series D convertible debentures and series D warrants were outstanding.

In September 2000, we entered into an agreement with an institutional investor for an equity financing facility covering the sale of up to \$50.0 million of our common stock over 24 months. The shares will be sold at our discretion at a discount to the then current market price of our common stock on the day of sale. We control the amount and timing of each sale of stock.

In October 2000, we sold \$2.5 million of our common stock under the equity line financing facility. The financing was made pursuant to an effective shelf registration previously filed with the Securities and Exchange Commission in April 2000.

We estimate that our existing capital resources, payments expected to be made under the Kyowa Hakko collaborative agreement, interest income and equipment financing will be sufficient to fund our current level of operations through March 2003. Changes in our research and development plans or other changes affecting our operating expenses may not result in the expenditure of available resources before such time, and in any event, we will need to raise substantial additional capital to fund our operations in the future. We intend to seek additional funding through strategic collaborations, public or private equity financings, capital lease transactions or other financing sources that may be available.

#### YEAR 2000 COMPUTER SYSTEMS COMPLIANCE

All of our computer hardware and software has been upgraded for Year 2000 compliance. All of our key vendors have provided assurance that they are Year 2000 compliant. While there were no Year 2000 related problems in the Year 2000, we are maintaining our contingency plans in the event any problems arise in the future.

The statement contained in the foregoing Year 2000 readiness disclosures is subject to protection under Year 2000 Information and Readiness Disclosure Act.

#### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The following discussion about Geron's market risk disclosures contains forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

**Interest Rate Sensitivity.** The fair value of our available-for-sale securities at December 31, 2000 was \$95.1 million. These investments include \$29.3 million of cash and cash equivalents which are due in less than 90 days, \$3.0 million of short-term investments which are due in less than one year and \$62.8 million in long-term investments which are due in one to two years. Our investment policy is to manage our marketable

securities portfolio to preserve principal and liquidity while maximizing the return on the investment portfolio through the full investment of available funds. We diversify the marketable securities portfolio by investing in multiple types of investment grade securities. We primarily invest our marketable securities portfolio in short-term securities with at least an investment grade rating to minimize interest rate and credit risk as well as to provide for an immediate source of funds. Although changes in interest rates may affect the fair value of the marketable securities portfolio and cause unrealized gains or losses, such gains or losses would not be realized unless the investments are sold. Due to the nature of our investments, which are primarily corporate and municipal notes and money market funds, we have concluded that there is no material market risk exposure.

Foreign Currency Exchange Risk. Because we translate foreign currencies into United States dollars for reporting purposes, currency fluctuations can have an impact, though generally immaterial, on our results. We believe that our exposure to currency exchange fluctuation risk is insignificant primarily because our international subsidiary satisfies its financial obligations almost exclusively in its local currencies. For the fiscal 2000 year end, there was an immaterial currency exchange impact from our intercompany transactions. However, the financial obligations of Geron to the Roslin Institute are stated in British pounds sterling over the next five years. This obligation may become more expensive for us if the United States dollar becomes weaker against the British pounds sterling. As of December 31, 2000, we did not engage in foreign currency hedging activities.

## ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

## REPORT OF ERNST &amp; YOUNG LLP, INDEPENDENT AUDITORS

The Board of Directors and Stockholders  
Geron Corporation

We have audited the accompanying consolidated balance sheets of Geron Corporation at December 31, 2000 and 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2000. 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 Geron Corporation at December 31, 2000 and 1999 and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2000, in conformity with accounting principles generally accepted in the United States.

ERNST & YOUNG LLP

Palo Alto, California  
February 9, 2001

## GERON CORPORATION

CONSOLIDATED BALANCE SHEETS  
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

## ASSETS

	DECEMBER 31,	
	2000	1999
Current assets:		
Cash and cash equivalents.....	\$ 29,985	\$ 7,835
Short-term investments.....	3,040	31,452
Interest and other receivables.....	1,156	705
Notes receivable from related parties.....	50	38
Other current assets.....	364	399
	-----	-----
Total current assets.....	34,595	40,429
Long-term investments.....	62,760	3,636
Notes receivable from related parties.....	282	275
Property and equipment, net.....	3,681	3,783
Deposits and other assets.....	299	301
Intangible assets.....	12,413	15,277
	-----	-----
	\$ 114,030	\$ 63,701
	=====	=====

## LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities:		
Accounts payable.....	\$ 1,459	\$ 1,321
Accrued compensation.....	616	720
Accrued liabilities.....	708	2,003
Deferred revenue.....	550	--
Current portion of capital lease obligations and equipment loans.....	923	1,183
Current portion of research funding obligation.....	3,869	2,721
	-----	-----
Total current liabilities.....	8,125	7,948
Noncurrent portion of capital lease obligations and equipment loans.....	1,030	1,787
Noncurrent portion of research funding obligation.....	9,551	12,413
Convertible debentures.....	31,406	15,327
Commitments		
Stockholders' equity:		
Common stock, \$0.001 par value; 50,000,000 shares authorized; 21,780,812 shares and 17,381,095 shares issued and outstanding in 2000 and 1999, respectively.....	22	17
Additional paid-in-capital.....	214,012	131,183
Notes receivable from stockholders.....	--	(70)
Deferred compensation.....	(475)	(853)
Accumulated deficit.....	(149,802)	(103,969)
Accumulated other comprehensive income (loss).....	161	(82)
	-----	-----
Total stockholders' equity.....	63,918	26,226
	-----	-----
	\$ 114,030	\$ 63,701
	=====	=====

See accompanying notes.

## GERON CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS  
(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)

	YEARS ENDED DECEMBER 31,		
	2000	1999	1998
Revenues from collaborative agreements.....	\$ 6,500	\$ 5,244	\$ 6,706
License fees and royalties.....	109	168	91
Total revenues.....	6,609	5,412	6,797
Operating expenses:			
Research and development.....	23,548	20,571	15,619
Acquired research technology.....	--	23,403	--
General and administrative.....	9,273	5,574	3,769
Total operating expenses.....	32,821	49,548	19,388
Loss from operations.....	(26,212)	(44,136)	(12,591)
Interest and other income.....	5,922	3,263	2,666
Interest and other expense.....	(12,284)	(5,503)	(907)
Loss before cumulative effect of a change in accounting principle.....	(32,574)	(46,376)	(10,832)
Cumulative effect of a change in accounting principle.....	(13,259)	--	--
Net loss.....	(45,833)	(46,376)	(10,832)
Accretion of redemption value of redeemable convertible preferred stock.....	--	(73)	(578)
Net loss applicable to common stockholders.....	\$ (45,833)	\$ (46,449)	\$ (11,410)
	=====	=====	=====
BASIC AND DILUTED NET LOSS PER SHARE:			
Loss per share before cumulative effect of a change in accounting principle.....	\$ (1.56)	\$ (3.00)	\$ (1.00)
Cumulative effect of a change in accounting principle.....	(0.64)	--	--
Net loss per share.....	\$ (2.20)	\$ (3.00)	\$ (1.00)
	=====	=====	=====
Shares used in computing net loss per share.....	20,869,791	15,489,035	11,439,084
	=====	=====	=====

See accompanying notes.

## GERON CORPORATION

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY  
(IN THOUSANDS, EXCEPT SHARE AMOUNTS)

	PREFERRED STOCK		COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	NOTES RECEIVABLE FROM STOCKHOLDERS	DEFERRED COMPENSATION	ACCUMULATED DEFICIT
	SHARES	AMOUNT	SHARES	AMOUNT				
Balances at December 31, 1997...	--	\$--	10,795,913	\$11	\$ 67,879	\$ --	\$ (714)	\$ (46,110)
Net loss.....	--	--	--	--	--	--	--	(10,832)
Net change in unrealized gain (loss) on available-for-sale securities.....	--	--	--	--	--	--	--	--
Comprehensive loss.....	--	--	--	--	--	--	--	--
Issuance of common stock in connection with corporate collaboration.....	--	--	255,102	--	4,000	--	--	--
Issuance of convertible preferred stock, net of issuance costs of \$72.....	15,000	--	--	--	14,928	--	--	--
Beneficial conversion feature related to convertible debentures issued.....	--	--	--	--	562	--	--	--
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	--	--	--	719	--	--	--
Accretion of premium on redemption of convertible preferred stock.....	--	--	--	--	578	--	--	(578)
Conversion of convertible preferred stock into common stock.....	(11,548)	--	2,173,446	2	(2)	--	--	--
Issuance of common stock in exchange for services.....	--	--	14,772	--	310	--	--	--
Issuance of common stock under employee stock plans.....	--	--	422,041	--	1,399	(4)	--	--
Transfer remaining shares of convertible preferred stock to redeemable convertible preferred stock.....	(3,452)	--	--	--	(3,610)	--	--	--
Deferred compensation related to certain options granted to employees.....	--	--	--	--	1,292	--	(1,292)	--
Amortization of deferred compensation.....	--	--	--	--	--	--	623	--
Balances at December 31, 1998...	--	--	13,661,274	13	88,055	(4)	(1,383)	(57,520)
Net loss.....	--	--	--	--	--	--	--	(46,376)
Net change in unrealized gain (loss) on available-for-sale securities.....	--	--	--	--	--	--	--	--
Cumulative translation adjustment.....	--	--	--	--	--	--	--	--
Comprehensive loss.....	--	--	--	--	--	--	--	--
Issuance of common stock in connection with acquisition....	--	--	2,100,000	2	24,384	--	--	--
Beneficial conversion feature related to convertible debentures issued.....	--	--	--	--	867	--	--	--
Conversion of convertible debentures.....	--	--	1,200,000	1	11,058	--	--	--
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	--	--	--	3,451	--	--	--
Accrual of penalty under convertible debentures.....	--	--	--	--	625	--	--	--
Accretion of premium on redemption of convertible preferred stock.....	--	--	--	--	--	--	--	(73)
Issuance of common stock in exchange for services.....	--	--	21,126	--	442	--	--	--
Issuance of common stock to certain research institutions, net of issuance costs of \$5....	--	--	92,000	--	1,079	--	--	--
Issuance of common stock upon exercise of warrants.....	--	--	3,229	--	21	--	--	--
Issuance of common stock under employee stock plans, net.....	--	--	303,466	1	1,201	(66)	--	--
Amortization of deferred compensation.....	--	--	--	--	--	--	530	--
Balances at December 31, 1999...	--	\$--	17,381,095	\$17	\$131,183	\$(70)	\$ (853)	\$(103,969)
		ACCUMULATED OTHER COMPREHENSIVE		TOTAL STOCKHOLDERS'				

	INCOME (LOSS)	EQUITY
	-----	-----
Balances at December 31, 1997...	\$ --	\$ 21,066
Net loss.....	--	(10,832)
Net change in unrealized gain (loss) on available-for-sale securities.....	30	30
		-----
Comprehensive loss.....		(10,802)
Issuance of common stock in connection with corporate collaboration.....	--	4,000
Issuance of convertible preferred stock, net of issuance costs of \$72.....	--	14,928
Beneficial conversion feature related to convertible debentures issued.....	--	562
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	719
Accretion of premium on redemption of convertible preferred stock.....	--	--
Conversion of convertible preferred stock into common stock.....	--	--
Issuance of common stock in exchange for services.....	--	310
Issuance of common stock under employee stock plans.....	--	1,395
Transfer remaining shares of convertible preferred stock to redeemable convertible preferred stock.....	--	(3,610)
Deferred compensation related to certain options granted to employees.....	--	--
Amortization of deferred compensation.....	--	623
	-----	-----
Balances at December 31, 1998...	30	29,191
Net loss.....	--	(46,376)
Net change in unrealized gain (loss) on available-for-sale securities.....	(144)	(144)
Cumulative translation adjustment.....	32	32
		-----
Comprehensive loss.....		(46,488)
Issuance of common stock in connection with acquisition....	--	24,386
Beneficial conversion feature related to convertible debentures issued.....	--	867
Conversion of convertible debentures.....	--	11,059
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	3,451
Accrual of penalty under convertible debentures.....	--	625
Accretion of premium on redemption of convertible preferred stock.....	--	(73)
Issuance of common stock in exchange for services.....	--	442
Issuance of common stock to certain research institutions, net of issuance costs of \$5....	--	1,079
Issuance of common stock upon exercise of warrants.....	--	21
Issuance of common stock under employee stock plans, net.....	--	1,136
Amortization of deferred compensation.....	--	530
	-----	-----
Balances at December 31, 1999...	\$ (82)	\$ 26,226

## GERON CORPORATION

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY (CONTINUED)  
(IN THOUSANDS, EXCEPT SHARE AMOUNTS)

	PREFERRED STOCK		COMMON STOCK		ADDITIONAL PAID-IN CAPITAL	NOTES RECEIVABLE FROM STOCKHOLDERS	DEFERRED COMPENSATION	ACCUMULATED DEFICIT
	SHARES	AMOUNT	SHARES	AMOUNT				
Balances at December 31, 1999...	--	\$--	17,381,095	\$17	\$131,183	\$ (70)	\$ (853)	\$(103,969)
Net loss.....	--	--	--	--	--	--	--	(45,833)
Net change in unrealized gain (loss) on available-for-sale securities.....	--	--	--	--	--	--	--	--
Cumulative translation adjustment.....	--	--	--	--	--	--	--	--
Comprehensive loss.....								
Issuance of common stock in connection with equity line less issuance costs of \$9.....	--	--	87,654	1	2,491	--	--	--
Issuance of common stock in connection with private investor financing.....	--	--	380,855	--	9,000	--	--	--
Beneficial conversion feature related to convertible debentures issued.....	--	--	--	--	616	--	--	--
Conversion of convertible debentures.....	--	--	915,069	1	9,076	--	--	--
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	--	--	--	10,527	--	--	--
Issuance of warrants to purchase common stock in exchange for services.....	--	--	--	--	3,780	--	--	--
Issuance of common stock in exchange for services.....	--	--	62,866	1	1,318	--	--	--
Issuance of common stock to certain research institutions.....	--	--	58,149	--	691	--	--	--
Issuance of common stock upon exercise of warrants.....	--	--	2,400,000	2	29,392	--	--	--
Issuance of common stock under employee stock plans, net.....	--	--	495,124	--	2,679	70	--	--
Amortization of deferred compensation.....	--	--	--	--	--	--	378	--
Effect of a change in accounting principle, beneficial conversion related to convertible debentures issue (\$10,527 in 2000 and \$2,732 in 1999).....	--	--	--	--	13,259	--	--	--
Balances at December 31, 2000...	--	\$--	21,780,812	\$22	\$214,012	\$ --	\$ (475)	\$(149,802)

	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)	TOTAL STOCKHOLDERS' EQUITY
Balances at December 31, 1999...	\$ (82)	\$ 26,226
Net loss.....	--	(45,833)
Net change in unrealized gain (loss) on available-for-sale securities.....	333	333
Cumulative translation adjustment.....	(90)	(90)
Comprehensive loss.....		(45,590)
Issuance of common stock in connection with equity line less issuance costs of \$9.....	--	2,492
Issuance of common stock in connection with private investor financing.....	--	9,000
Beneficial conversion feature related to convertible debentures issued.....	--	616
Conversion of convertible debentures.....	--	9,077
Issuance of warrants to purchase common stock in connection with convertible debenture financing.....	--	10,527
Issuance of warrants to purchase common stock in exchange for services.....	--	3,780
Issuance of common stock in		

exchange for services.....	--	1,319
Issuance of common stock to certain research institutions.....	--	691
Issuance of common stock upon exercise of warrants.....	--	29,394
Issuance of common stock under employee stock plans, net.....	--	2,749
Amortization of deferred compensation.....	--	378
Effect of a change in accounting principle, beneficial conversion related to convertible debentures issue (\$10,527 in 2000 and \$2,732 in 1999).....	--	13,259
	-----	-----
Balances at December 31, 2000...	\$ 161	\$ 63,918
	=====	=====

See accompanying notes.

## GERON CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS  
(IN THOUSANDS)

	YEARS ENDED DECEMBER 31,		
	2000	1999	1998
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>			
Net loss.....	\$(45,833)	\$(46,376)	\$(10,832)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization.....	1,411	1,281	1,122
Amortization of intangible assets, principally research related.....	2,864	1,910	--
Interest related to beneficial conversion feature.....	24,402	3,599	562
Accretion of discount on convertible debentures.....	8	241	--
Interest expense related to series C convertible debentures.....	148	688	--
Purchased research technology expense.....	--	23,403	--
Accretion of interest on research funding obligation.....	491	312	--
Expense related to common stock issued for services rendered.....	3,995	1,542	310
Amortization of deferred compensation.....	378	530	623
Changes in assets and liabilities:			
Interest and other receivables.....	(451)	(182)	378
Other current assets.....	35	286	(34)
Notes receivable from related parties.....	(19)	(63)	80
Deposits and other assets.....	(48)	(62)	(66)
Accounts payable.....	138	137	461
Accrued compensation.....	(104)	3	286
Accrued liabilities.....	853	1,708	52
Deferred revenue.....	550	(244)	(731)
Research funding payments.....	(2,190)	(2,363)	--
Translation adjustment.....	(233)	49	--
Net cash used in operating activities.....	(13,605)	(13,601)	(7,789)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>			
Capital expenditures.....	(1,181)	(2,728)	(1,034)
Net cash acquired in acquisition.....	--	983	--
Purchases of securities available-for-sale.....	(62,334)	(31,294)	(28,375)
Proceeds from maturities of securities available-for-sale...	16,480	18,103	21,817
Proceeds from sales/calls of securities available-for-sale.....	15,526	2,004	--
Net cash used in investing activities.....	(31,509)	(12,932)	(7,592)
<b>CASH FLOWS FROM FINANCING ACTIVITIES</b>			
Proceeds from issuance of convertible debentures and warrants.....	25,000	20,000	7,500
Proceeds from equipment loans.....	201	2,027	1,034
Payments of obligations under capital leases and equipment loans.....	(1,218)	(1,263)	(1,084)
Redemption of redeemable convertible preferred stock.....	--	(3,683)	--
Proceeds from issuance of preferred stock, net.....	--	--	14,928
Proceeds from issuance of common stock, net.....	43,281	927	5,241
Net cash provided by financing activities.....	67,264	18,008	27,619
Net increase (decrease) in cash and cash equivalents.....	22,150	(8,525)	12,238
Cash and cash equivalents, at beginning of period.....	7,835	16,360	4,122
Cash and cash equivalents, at end of period.....	\$ 29,985	\$ 7,835	\$ 16,360

See accompanying notes.

## GERON CORPORATION

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

## Organization

Geron Corporation ("Geron" or the "Company") was incorporated in the State of Delaware on November 29, 1990. Geron is a biopharmaceutical company focused on discovering, developing and commercializing therapeutic and diagnostic products for applications in oncology and regenerative medicine, and research tools for drug discovery. Geron's product development programs are based upon three patented core technologies: telomerase, human embryonic stem cells and nuclear transfer. Principal activities to date have included obtaining financing, recruiting management and technical personnel, securing operating facilities and conducting research and development. The Company has no therapeutic products currently available for sale and does not expect to have any therapeutic products commercially available for sale for a period of years, if at all. These factors indicate that the Company's ability to continue its research and development activities is dependent upon the ability of management to obtain additional financing as required.

## PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of Geron Corporation and its wholly owned subsidiary, Geron Bio-Med Ltd., a United Kingdom company. Intercompany accounts and transactions have been eliminated. The financial statements of the Company's subsidiary outside the United States are measured using the local currency as the functional currency. Assets and liabilities of this subsidiary are translated at the rates of exchange at the balance sheet date. The resultant translation adjustments are included in accumulated other comprehensive income (loss), a separate component of stockholders' equity. Income and expense items are translated at average monthly rates of exchange.

## Net Loss Per Share

The Company's basic and diluted net loss per share amounts are calculated in accordance with Statement of Financial Accounting Standard No. 128, "Earnings Per Share," ("SFAS 128"). Basic earnings (loss) per share excludes any dilutive effects of options, warrants and convertible securities. Diluted earnings (loss) per share includes any dilutive effect of options, warrants and convertible securities.

A reconciliation of shares used in calculation of basic and diluted net loss per share follows:

	YEARS ENDED DECEMBER 31,		
	2000	1999	1998
	-----		
	2000	1999	1998
	-----		
	(IN THOUSANDS, EXCEPT SHARE AND PER SHARE AMOUNTS)		
Loss before cumulative effect of a change in accounting principle.....	\$ (32,574)	\$ (46,376)	\$ (10,832)
Cumulative effect of a change in accounting principle.....	(13,259)	--	--
	-----		
Net loss.....	(45,833)	(46,376)	(10,832)
Accretion of redemption value of redeemable convertible preferred stock.....	--	(73)	(578)
	-----		
Net loss applicable to common stockholders.....	\$ (45,833)	\$ (46,449)	\$ (11,410)
	=====		
<b>BASIC AND DILUTED NET LOSS PER SHARE:</b>			
Loss per share before cumulative effect of a change in accounting principle.....	\$ (1.56)	\$ (3.00)	\$ (1.00)
Cumulative effect of a change in accounting principle.....	(0.64)	--	--
	-----		
Basic and diluted net loss per share.....	\$ (2.20)	\$ (3.00)	\$ (1.00)
	=====		
Weighted average shares of common stock outstanding used in computing net loss per share.....	20,869,791	15,489,035	11,439,084
	=====		

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Had the Company been in a net income position, diluted earnings per share would have included the shares used in the computation of basic net loss per share as well as an additional 2,069,229, 1,392,833, and 1,370,960 shares related to outstanding options and warrants not included above (as determined using the treasury stock method at the estimated average market value) for 2000, 1999 and 1998, respectively. In addition, had the Company been in a net income position, diluted earnings per share would also have included 1,479,760, 235,305 and 43,750 shares in 2000, 1999 and 1998, respectively, related to convertible debentures.

## Use of Estimates

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

## Revenue Recognition

Since Geron's inception, a substantial portion of its revenues has been generated from license and research agreements with collaborators. In addition, Geron has received license payments and royalties from license and marketing agreements with various diagnostic and research tools collaborators.

The Company recognizes revenue as the related research and development costs are incurred. Milestone fees are recognized upon completion of specified milestones according to contract terms. Deferred revenue represents the portion of research payments received which have not been earned. Nonrefundable signing or licensing fees that are not dependent on future performance under collaborative agreements are recognized as revenue when received assuming the Company has no remaining obligations. Royalties are generally recognized upon receipt.

The majority of the Company's revenues was earned in the United States. Two customers accounted for 76% and 22% of the Company's 2000 revenues, 92% and 5% of the Company's 1999 revenues, and 74% and 25% of the Company's 1998 revenues. In January 2001, the Company and its largest customer, accounting for 76% of 2000 revenues, agreed to terminate its agreement.

## Depreciation and Amortization

The Company records property and equipment at cost and calculates depreciation using the straight-line method over the estimated useful lives of the assets, generally four years. Furniture and equipment leased under capital leases is amortized over the useful lives of the assets. Leasehold improvements are amortized over the remaining term of the lease.

## Comprehensive Income (Loss)

Comprehensive income (loss) is comprised of net income and other comprehensive income (loss). Other comprehensive income (loss) includes certain changes in equity that are excluded from net income. Specifically, unrealized holding gains and losses on our available-for-sale securities, which were reported separately in stockholders' equity, and the cumulative translation adjustment are included in accumulated other comprehensive income (loss). Comprehensive income (loss) of \$161,000, \$(82,000) and \$30,000 for the years ended December 31, 2000, 1999 and 1998, respectively, have been reflected in the consolidated statement of stockholders' equity.

## Other Recent Accounting Pronouncements

In June 1999, the Financial Accounting Standards Board ("FASB") issued FAS 137, "Accounting for Derivative Instruments and Hedging Activities -- Deferral of the Effective Date of FASB Statement No. 133" ("FAS 137"), which amends FAS 133 to be effective for all fiscal quarters or all fiscal years

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

beginning after June 15, 2000 or January 1, 2001 for the Company. Management does not currently expect that adoption of FAS 133 will have a material impact on the Company's financial position or results of operations.

In December 1999, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 101 clarifies existing accounting principles related to revenue recognition in financial statements. The adoption of SAB 101 in fiscal year 2000 had no impact on the Company's consolidated financial statements.

In March 2000, the FASB issued FASB Interpretation 44, "Accounting for Certain Transactions Involving Stock Compensation" ("FIN 44"), which provides clarification on the application of APB Opinion No. 25, "Accounting for Stock Issued to Employees," and is effective for the Company's year ended December 31, 2000. The adoption of FIN 44 in fiscal year 2000 had no impact on the Company's consolidated financial statements.

In November 2000, the FASB issued Emerging Issues Task Force Issue No. 00-27, "Application of EITF Issue No. 98-5, Accounting for Convertible Securities with Beneficial Conversion Features or Contingently Adjustable Conversion Ratios, to Certain Convertible Instruments" ("EITF 00-27") which is effective retroactively to September 1999 for all such instruments. EITF 00-27 clarifies the accounting for instruments with beneficial conversion features or contingently adjustable conversion ratios. According to the new accounting principle, the beneficial conversion feature should be calculated by first allocating the proceeds received from the financing among the convertible instrument and the detachable warrants and then, measuring the beneficial conversion feature between the stated conversion price of the convertible instrument and the effective conversion price based on the allocated proceeds. Previously, the beneficial conversion feature calculation was based on the difference between the stated conversion price of the convertible instrument and the fair value of the company's stock price on the closing date of the financing. As a result of the new accounting principle, the Company modified the calculation of the beneficial conversion features associated with its series C convertible debentures issued in September 1999 and series D convertible debentures issued in June 2000.

The Company has presented the effect of the adopting the new accounting principle as a cumulative effect of a change in accounting principle as allowed for in EITF 00-27. Accordingly, the Company has recognized an additional \$13,259,000 in imputed non-cash interest expense. Prior year financial statements have not been restated to reflect the change in accounting principle. Had the Company adopted the new accounting principle in 1999, the effect of the change on the Company's Consolidated Statement of Operations would have been to increase the net loss by approximately \$2,732,000 for the year ended December 31, 1999 and \$10,527,000 for the year ended December 31, 2000.

## 2. ACQUISITION

In May 1999, the Company completed the acquisition of Roslin Bio-Med Ltd., a privately held company formed by the Roslin Institute in Midlothian, Scotland. In connection with this acquisition, the Company formed a research collaboration with the Roslin Institute and has committed approximately \$20,000,000 in research funding over six years which using an effective interest rate of 6% has a net present value of \$17,200,000. The Company issued 1,891,371 shares of its common stock with a fair value of \$22,200,000 in exchange for all of the outstanding shares of Roslin Bio-Med Ltd. In addition, the Company issued fully vested options to purchase 208,629 shares of Geron common stock with a fair value of \$2,200,000 in exchange for the outstanding fully vested stock options in Roslin Bio-Med Ltd. The total purchase price of \$44,400,000 also included acquisition costs of \$2,900,000. Under the terms of the agreement, Roslin Bio-Med Ltd. became a wholly owned United Kingdom subsidiary of Geron and is known as Geron Bio-Med Ltd.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

The license to the nuclear transfer technology was the only significant asset of Roslin Bio-Med. Geron intends to further the research and development of the nuclear transfer technology, in combination with its other technology platforms. Geron must further the research and development of the technology before Geron can enter into clinical trials for a potential commercial application. Future products, if any, may take several years to develop and commercialize and will require substantial additional funds. Geron may never be able to create a commercial product from the technology. Geron is using this technology for one research project. Geron has concluded that this technology has no alternative future use, and accordingly, Geron has expensed the value of the acquired research technology at the time of the acquisition.

The transaction was accounted for using the purchase method of accounting. The purchase price was allocated among the acquired basic research in the form of a license in the nuclear transfer technology, the research agreement with the Institute and the net tangible assets of Roslin Bio-Med Ltd. The value of the nuclear transfer technology of \$23,400,000 was reflected as acquired research expense and the value of the research agreement of \$17,200,000 has been capitalized as an intangible asset and is being amortized over six years. Payments totaling \$2,200,000 and \$2,300,000 were made to the Roslin Institute under the research funding obligation in 2000 and 1999, respectively. Imputed interest of \$491,000 and \$1,900,000 was accreted to the value of the research funding obligation and was recognized as interest expense in 2000 and 1999, respectively.

The unaudited pro forma consolidated statement of operations data for the year ended December 31, 1999 set forth below give effect to the acquisition of Roslin Bio-Med Ltd. as if it occurred on January 1, 1999. The unaudited pro forma consolidated statement of operations data for the year ended December 31, 1998 set forth below give effect to the acquisition of Roslin Bio-Med Ltd. as if it occurred on January 1, 1998.

The proforma results of operations for 1999 and 1998 do not include the expense of \$23,400,000 recorded in 1999 by Geron for the acquired research technology. The results for both 1999 and 1998 include an adjustment to reflect the amortization of the research funding obligation. The basic and diluted net loss per share amounts are computed using the weighted average number of shares of common stock outstanding after the issuance of Geron common stock in connection with this acquisition.

	YEAR ENDED DECEMBER 31, 1999	YEAR ENDED DECEMBER 31, 1998
	(UNAUDITED)	
	(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)	
Revenues.....	\$ 5,412	\$ 6,799
Net loss.....	\$(24,158)	\$(16,384)
Basic and diluted net loss per share.....	\$ (1.49)	\$ (1.24)

## 3. FINANCIAL INSTRUMENTS AND CREDIT RISK

## Cash Equivalents and Securities Available-for-Sale

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company is subject to credit risk related to its cash equivalents and securities available-for-sale. The Company places its cash and cash equivalents in money market funds, municipal notes and commercial paper. The Company's investments include corporate notes in United States corporations and municipal securities with original maturities ranging from three to 19 months.

The Company classifies its marketable equity and debt securities as available-for-sale. Available-for-sale securities are recorded at fair value with unrealized gains and losses reported in accumulated other comprehensive income (loss) in stockholders' equity. Fair values for investment securities are based on quoted market prices, where available. If quoted market prices are not available, fair values are based on quoted market prices of comparable instruments. Realized gains and losses are included in interest and other income and are derived using the specific identification method for determining the cost of securities sold and have

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

been immaterial to date. Declines in market value judged other-than-temporary result in a charge to interest income. Dividend and interest income are recognized when earned.

The following is a summary of available-for-sale securities at December 31, 2000 and 1999:

	ESTIMATED FAIR VALUE	
	2000	1999
	(IN THOUSANDS)	
Included in cash and cash equivalents:		
Money market fund.....	\$10,479	\$ 3,516
Municipal note.....	2,000	2,000
Corporate notes.....	16,794	--
	-----	-----
	\$29,273	\$ 5,516
	=====	=====
Short-term investments (due in less than 1 year):		
Certificate of deposit.....	\$ 557	\$ --
Corporate notes.....	2,483	31,452
	-----	-----
	\$ 3,040	\$31,452
	=====	=====
Long-term investments (due in 1 - 2 years):		
Corporate notes.....	\$62,760	\$ 3,636
	=====	=====

As of December 31, 2000 and 1999, the difference between the fair value and the amortized cost of available-for-sale securities was immaterial.

## Other Assets

The Company presently holds notes receivable of \$332,000 (\$312,500 in 1999) from employees of the Company related to housing costs following relocation. These notes, which in general bear no interest, are collateralized by certain real property assets of the employees. Two of the notes receivable are to be paid in full by June 2002 and November 2003, respectively. The remaining two notes receivable are being paid in a series of installments over three years ending December 2002 and August 2003.

## Other Fair Value Disclosures

At December 31, 2000, the fair value of the notes receivable from employees is \$280,000. The fair value was estimated using discounted cash flow analyses, using interest rates currently being offered for loans with similar terms of borrowers of similar credit quality.

The fair value of the equipment loans approximates the carrying value of \$1,953,000. The fair value was estimated using discounted cash flow analyses, based on the Company's current incremental borrowing rates for similar types of borrowing arrangements.

The fair value of the convertible debentures approximates the carrying value of \$31,406,000. The fair value was estimated using discounted cash flow analyses, based on the Company's current incremental borrowing rates for similar types of borrowing arrangements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 4. PROPERTY AND EQUIPMENT

Property and equipment, stated at cost, is comprised of the following:

	DECEMBER 31,	
	2000	1999
	-----	
	(IN THOUSANDS)	
Furniture and computer equipment.....	\$ 2,502	\$ 2,120
Lab equipment.....	4,670	4,440
Leasehold improvements.....	3,864	3,309
	-----	
	11,036	9,869
Less accumulated depreciation and amortization.....	(7,355)	(6,086)
	-----	
	\$ 3,681	\$ 3,783
	=====	=====

Property and equipment at December 31, 2000 and 1999 includes assets under capitalized leases and equipment loans of approximately \$2,626,000 and \$2,879,000 respectively. Accumulated amortization related to leased assets was approximately \$1,566,000 and \$1,307,000 at December 31, 2000 and 1999, respectively.

## 5. EQUIPMENT LOANS

In 2000, the Company entered into equipment loan credit lines of \$1,500,000. As of December 31, 2000, the Company had approximately \$1,500,000 available for borrowing under its equipment financing facilities. The drawdown period under the equipment financing facilities expires on October 31, 2001. The obligations under the equipment loans, which are secured by the equipment financed, bear interest at fixed rates of approximately 11% and are due in monthly installments through March 2004. Under the terms of the master lease agreement, ownership of the leased equipment will transfer to the Company at the end of the lease term.

Future minimum principal payments on equipment loans are as follows:

	EQUIPMENT LOANS
	-----
	(IN THOUSANDS)
Years ending December 31:	
2001.....	\$ 923
2002.....	803
2003.....	216
2004.....	11
	-----
Total minimum principal payments.....	\$1,953
	=====

## 6. OPERATING LEASE COMMITMENT

On March 25, 1996, the Company leased two facilities under two five-year noncancelable operating leases. Future minimum payments under noncancelable operating leases are approximately \$693,000 in 2001 and \$58,000 in 2002. The Company has the option to extend the term of both leases for two additional periods of two and one half years each. Rent expense under operating leases was approximately \$612,000, \$652,000 and \$637,000 for the years ended December 31, 2000, 1999 and 1998, respectively.

## 7. CONVERTIBLE DEBENTURES

## Series A and B Debentures

On December 10, 1998, the Company entered into an agreement to sell \$15,000,000 in convertible zero coupon debentures and warrants to purchase 1,250,000 shares of common stock to investment funds managed

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

by three institutional investors. The debentures are convertible at any time by the holders at a fixed conversion price of \$10.00 per share. One-half of the proceeds were funded upon signing the agreement, at which time \$7,500,000 of series A convertible debentures and warrants to purchase 625,000 shares of common stock were issued. The debentures convert at the Company's option when the common stock has traded at a certain premium to the fixed conversion price for five consecutive trading days. The warrants are exercisable at \$12.00 per share at any time through May 2000. The proceeds of \$7,500,000 from the issuance of series A convertible debentures and warrants were allocated between the series A convertible debentures and warrants as follows: \$6,800,000 to the debentures and \$719,000 to the warrants. The series A convertible debentures, which were recorded at a discount, were being accreted to the redemption amount over the three year term using the interest method. In connection with the issuance of the series A convertible debentures and warrants, the Company recorded approximately \$563,000 in interest expense for the difference between the fair value of the common stock on the date of signing and the conversion price of the debentures. During 1999, all of the series A convertible debentures with a face value of \$7,500,000 were converted into 750,000 shares of Geron common stock at \$10.00 per share. In March 2000, all of the series A warrants were exercised which resulted in proceeds of \$7,500,000 and the issuance of 625,000 shares of Geron common stock. As of December 31, 2000, none of series A convertible debentures or series A warrants remained outstanding.

In June 1999, \$7,500,000 of series B convertible debentures and warrants to purchase 625,000 shares of common stock were issued under the agreement entered into in December 1998. The price and terms of the series B convertible debentures were identical to the series A convertible debentures. In connection with the issuance of the series B convertible debentures and warrants, the Company recorded approximately \$562,000 in interest expense for the difference between the fair value of the common stock on the date of signing and the conversion price of the debentures. The warrants are exercisable at \$12.00 per share at any time through November 2000. The \$7,500,000 proceeds from the series B convertible debentures and warrants were allocated between the series B convertible debentures and the warrants as follows: \$6,800,000 to the debentures and \$719,000 to the warrants. The series B convertible debentures, which were recorded at a discount, were being accreted to the redemption amount over the three year term using the interest method. During 1999, series B convertible debentures with a face value of \$4,500,000 were converted into 450,000 shares of Geron common stock at \$10.00 per share. In March 2000, series B convertible debentures with a face value of \$3,000,000 were converted into 300,000 shares of Geron common stock. In addition, all of the series B warrants were exercised which resulted in proceeds of \$7,500,000 and the issuance of 625,000 shares of Geron common stock. As of December 31, 2000, no series B convertible debentures or series B warrants remained outstanding.

## Series C Debentures

On September 30, 1999, the Company sold \$12,500,000 in series C convertible two-percent coupon debentures and warrants to purchase 1,100,000 shares of common stock to an institutional investor. The series C convertible debentures are convertible at any time by the holder at a fixed conversion price of \$10.25 per share. The series C convertible debentures are convertible at the Company's option when the common stock has traded at a certain premium to the fixed conversion price for ten consecutive trading days. If unconverted, the debentures have a maturity date of September 30, 2002. The series C warrants to purchase 1,000,000 shares of common stock are exercisable at \$12.50 per share and the series C warrants to purchase 100,000 shares of common stock are exercisable at \$12.75 per share at the option of the holder through May 2001.

As of the date of the issuance of the series C convertible debentures, the Company did not have sufficient authorized common shares to permit the series C debenture holder to fully convert the series C debentures and exercise the warrants. In the event that the Company did not obtain stockholder approval to increase its authorized common shares to allow for full conversion of the series C debentures and exercise of series C warrants prior to March 31, 2000, the Company would have been in default of under the debenture and would

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

have been obligated to redeem the debentures at the request of the series C convertible debenture holder at the greater of 115% of the principal amount of the debentures or an amount equal to the fair value of the common stock such debentures would have been converted into plus expenses. As of December 31, 1999, the Company had obtained stockholder approval to issue the additional shares of common stock necessary in order for the holders of series C convertible debentures to fully convert their debentures and exercise their warrants. Prior to obtaining stockholder approval to increase the number of authorized shares of the Company's common stock, the Company recognized \$625,000 of interest expense related to this potential penalty on redemption up through the date the additional shares were authorized.

On the date of issuance of the debentures, the Company recorded approximately \$305,000 in interest expense for the difference between the fair value of the Company's common stock on September 30, 1999 and the conversion price of the debentures. The value of the warrants was determined to be \$2,732,000. In accordance with Emerging Issue Task Force Issue No. 98-5, which was effective for transactions with a commitment date after May 20, 1999, this value was recorded as an increase to additional paid-in-capital and a related charge to interest expense. This amount was recorded at the time when the Company obtained stockholder approval to increase the number of authorized shares of the Company's common stock to an amount sufficient to allow for the full conversion of series C convertible debentures and exercise of the series C warrants. See also Note 1, "Other Recent Accounting Pronouncements."

In March 2000, series C convertible debentures with a face value of \$6,250,000 plus accrued interest were converted into approximately 615,000 shares of Geron common stock at \$10.25 per share. In addition, all of the series C warrants were exercised which resulted in proceeds of \$13,750,000 and the issuance of 1,100,000 shares of Geron common stock. As of December 31, 2000, series C convertible debentures with a face value of \$6,250,000 and no series C warrants remained outstanding.

## Series D Debentures

On June 29, 2000, the Company sold \$25,000,000 in series D zero coupon convertible debentures and warrants to purchase 834,836 shares of Geron common stock to an institutional investor. The debentures are convertible at any time by the holder at a fixed conversion price of \$29.95 per share. In connection with the issuance of the series D convertible debentures, the Company recorded approximately \$616,000 in interest expense for the difference between the fair value of the Company's common stock and the conversion price of the debentures on the closing date of the financing. The debentures convert at the Company's option when Geron common stock has traded at a certain premium to the fixed conversion price for five consecutive trading days. If unconverted, the debentures have a maturity date of June 29, 2003. The warrant to purchase 834,836 shares of Geron common stock is exercisable at \$37.43 per share at the option of the holder through December 2001. The value of the warrant of \$10,527,000 was determined using Black-Scholes and since the debentures were immediately convertible at the option of the holder, the entire warrant value was recorded as a charge to interest expense and a credit to additional paid-in-capital. As of December 31, 2000, all of the series D convertible debentures and series D warrants remained outstanding. See also Note 1, "Other Recent Accounting Pronouncements."

## 8. REDEEMABLE CONVERTIBLE PREFERRED STOCK

On March 27, 1998, the Company completed a private placement with two institutional investors for the sale of 15,000 shares of series A redeemable convertible preferred stock (the "series A preferred stock") with a par value of \$0.001 and a stated value of \$1,000 per share resulting in proceeds of \$15,000,000. The series A preferred stock was convertible into the number of shares of common stock of the Company equal to the stated value plus a premium of 6% per annum divided by a conversion price. The premium on the series A preferred stock was accreted and recorded as a dividend. The premium was accrued through December 31, 1998 with the offsetting charge recorded to accumulated deficit. The conversion price of the series A preferred

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

stock was based on the market price of the common stock during a pricing period preceding conversion, up to a conversion price cap of \$16.88. The series A preferred stock was subject to redemption at the Company's option if the market price of the common stock exceeded or fell below certain thresholds.

On November 6, 1998, 11,548 shares of series A preferred stock were converted into 2,173,446 shares of common stock. The number of shares of common stock issued in November 1998 met the maximum threshold of shares of common stock that could be issued without obtaining stockholder approval under NASD regulations. Because the Company had not obtained stockholder approval to issue additional shares of common stock as of December 31, 1998, the remaining 3,452 shares of series A preferred stock (with a book value of \$3,452,000), which were then redeemable at the option of the holders of series A preferred stock, were reclassified as redeemable convertible preferred stock and were excluded from stockholders' equity. In addition, the 6% premium on the outstanding shares of series A preferred stock was to be accreted to the value of the outstanding series A preferred stock.

In May 1999, the Company redeemed the remaining 3,452 shares of series A preferred stock. The total redemption value of \$3,700,000 included the 6% premium on the outstanding book value of the series A preferred stock. As of December 31, 2000 and 1999, no shares of series A preferred stock remained outstanding.

## 9. PRIVATE FINANCING

In March 2000, the Company sold a total of 380,855 shares of common stock and warrants to purchase 300,000 shares of Geron common stock to a single investor for \$9,000,000. Warrants to purchase 100,000 shares of common stock are exercisable at \$12.50 per share and the warrants to purchase 200,000 shares of common stock are exercisable at \$67.09 per share by the holder at any time through February 2010. As of December 31, 2000, all of the warrants issued with the private financing remained outstanding.

## 10. EQUITY LINE

In September 2000, the Company entered into an agreement with an institutional investor for an equity financing facility covering the sale of up to \$50,000,000 of the Company's common stock over 24 months. The shares will be sold at the Company's discretion at a discount to the then current market price of the Company's common stock on the day of sale. The Company controls the amount and timing of each sale of stock.

In October 2000, the Company sold \$2,500,000 of the Company's common stock under the equity line financing facility. The financing was made pursuant to an effective shelf registration previously filed with the Securities and Exchange Commission in April 2000.

## 11. STOCKHOLDERS' EQUITY

## Warrants

In August 2000, in connection with a milestone payment to an academic institution, the Company issued a warrant to purchase 5,000 shares of common stock. The warrant is exercisable at any time through August 2010 at \$31.69 per share. The fair value of this warrant was determined to be approximately \$148,000 and was recorded as a charge to research and development expense and a credit to additional paid-in-capital. As of December 31, 2000, the warrant issued with the milestone payment remained outstanding.

In July 2000, in connection with a milestone payment to an academic institution, the Company issued a warrant to purchase 25,000 shares of common stock. The warrant is exercisable at any time through June 2010 at \$6.75 per share. The fair value of this warrant was determined to be approximately \$770,000 and was

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

recorded as a charge to research and development expense and a credit to additional paid-in-capital. As of December 31, 2000, the warrant issued with the milestone payment remained outstanding.

In June 2000, in connection with the sale of series D convertible debentures to one institutional investor, the Company issued warrants to purchase 834,836 shares of common stock at \$37.43 per share. The series D warrants are exercisable at any time through December 2001. The fair value of these warrants in connection with the financing was determined to be approximately \$10,500,000. As of December 31, 2000, all of the series D warrants remained outstanding.

In April 2000, in connection with a consulting services agreement, the Company issued a warrant to purchase 142,350 shares of common stock. The warrant is exercisable at any time through April 2002 at \$10.52 per share. The fair value of this warrant was determined to be approximately \$2,500,000 and was recorded as a charge to general and administrative expense and a credit to additional paid-in-capital. As of December 31, 2000, the warrant issued with the consulting services agreement remained outstanding.

In March 2000, in connection with a private financing, the Company issued warrants to purchase 100,000 shares of common stock at \$12.50 per share and the warrants to purchase 200,000 shares of common stock at \$67.09 per share. The warrants are exercisable at any time through February 2010. As of December 31, 2000, all of the warrants issued with the private financing remained outstanding.

In September 1999, in connection with the sale of series C convertible debentures to one institutional investor, the Company issued warrants to purchase 1,000,000 shares of common stock at \$12.50 per share, and warrants to purchase 100,000 shares of common stock at \$12.75 per share. The series C warrants were exercisable at any time through June 2001. The value of these warrants in connection with the financing was determined to be approximately \$2,732,000. In March 2000, all of the series C warrants were exercised which resulted in proceeds of \$13,750,000 and the issuance of 1,100,000 shares of Geron common stock. As of December 31, 2000, none of the series C warrants remained outstanding.

In June 1999, in connection with the sale of series B convertible debentures to three institutional investors, the Company issued warrants to purchase 625,000 shares of common stock at \$12.00 per share. The series B warrants were exercisable at any time through November 2000. The value of these warrants in connection with the financing was determined to be approximately \$719,000. In March 2000, all of the series B warrants were exercised which resulted in proceeds of \$7,500,000 and the issuance of 625,000 shares of Geron common stock. As of December 31, 2000, none of the series B warrants remained outstanding.

In December 1998, in connection with the sale of series A convertible debentures to three institutional investors, the Company issued warrants to purchase 625,000 shares of common stock at \$12.00 per share. The series A warrants were exercisable at any time through June 2000. The value of these warrants in connection with the financing was determined to be approximately \$719,000. In March 2000, all of the series A warrants were exercised which resulted in proceeds of \$7,500,000 and the issuance of 625,000 shares of Geron common stock. As of December 31, 2000, none of the series A warrants remained outstanding.

In October 1998, in conjunction with a license agreement, the Company issued a warrant to purchase 25,000 shares of common stock at \$5.78 per share to a research institution. The warrant is exercisable through September 2008. The value of these warrants was determined to be immaterial. During 1999, 5,583 of the warrants were exercised under a non-cash basis, which resulted in the issuance of 2,586 shares of common stock. During 2000, 11,500 of these warrants were exercised on non-cash basis, which resulted in the issuance of 9,722 shares of common stock. As of December 31, 2000, warrants to purchase 7,917 shares of common stock remain outstanding.

In August 1997, in conjunction with a license agreement, the Company issued warrants to purchase 25,000 shares of common stock at \$6.75 per share to a research institution and its affiliates. The warrants are exercisable through July 2007. The value of these warrants was determined to be immaterial. As of

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

December 31, 2000, all of the warrants issued in conjunction with the license agreements remained outstanding.

In February 1994, in conjunction with a research agreement, the Company issued a warrant to purchase 47,058 shares of common stock at \$7.65 per share. The warrant is exercisable through February 2004. The value of these warrants was determined to be immaterial. In January 2000, all of the warrants were exercised under a non-cash basis, which resulted in the issuance of 47,149 shares of common stock. As of December 31, 2000, none of the warrants issued in conjunction with the research agreement remained outstanding.

#### 1992 Stock Option Plan

The Company administers the 1992 Stock Option Plan (the "Plan"). The options granted under this Plan may be either incentive stock options or nonstatutory stock options. As of December 31, 2000, the Company had reserved 5,944,362 shares of common stock for issuance under the Plan. Options granted under this Plan expire no later than ten years from the date of grant. For incentive stock options and nonstatutory stock options, the option price shall be at least 100% and 85%, respectively, of the fair market value on the date of grant. If, at the time the Company grants an option, the optionee directly or by attribution owns stock possessing more than 10% of the total combined voting power of all classes of stock of the Company, the option price shall be at least 110% of the fair market value and shall not be exercisable more than five years after the date of grant.

Options to purchase shares of common stock generally vest over a period of four or five years from the date of the option grant, with a portion vesting after six months and the remainder vesting ratably over the remaining period. Options granted under the Plan prior to July 1996 (the date of the Company's initial public offering) are generally immediately exercisable; however, any unvested shares issued are subject to repurchase rights whereby the Company has the option to repurchase any unvested shares upon termination of employment at the original exercise price. In 2000 and 1999, the Company repurchased none and 118 shares, respectively, in accordance with these repurchase rights. As of December 31, 2000, 114 shares remained subject to repurchase.

On September 18, 1998, the Board of Directors approved a resolution to offer all employees holding outstanding options to purchase common stock of the Company under the Company's 1992 Stock Option Plan with exercise prices in excess of the closing price of the Company's common stock on September 17, 1998 of \$4.75, the option to exchange all such options for new incentive and/or nonstatutory stock options. Each such new incentive and/or nonstatutory stock option was on the same terms as the surrendered option, except that (i) the exercise price was equal to the closing price of the Company's common stock as reported on September 17, 1998 of \$4.75, (ii) the vesting period of each exchanged option as set forth in the applicable stock option agreement was extended for one year beginning from the original vesting commencement date, (iii) no exchanged option could be exercised or sold by the optionee prior to September 18, 1999, except due to the involuntary termination of the employee by the Company or his or her death or permanent disability, and (iv) options so exchanged were exchanged for the maximum number of incentive stock options permitted under applicable rules and regulations. In connection with this option exchange program, options to purchase 1,148,224 shares of common stock were cancelled and regranted. In addition, the Company recorded deferred compensation of approximately \$1,300,000 in 1998 and recognized compensation expense related to this option exchange of approximately \$241,000, \$241,000 and \$334,000 in 2000, 1999 and 1998, respectively. The remaining deferred compensation is being amortized over the remaining vesting term of the options.

#### Directors' Option Plan

In July 1996, the Company adopted the 1996 Directors' Stock Option Plan and reserved an aggregate of 250,000 shares of common stock for issuance thereunder. In May 1999, the stockholders approved an

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

amendment to increase the number of authorized shares to 500,000 shares of common stock. As of December 31, 2000, 255,000 options have been granted under the Directors' Option Plan.

Aggregate option activity for the 1992 Stock Option Plan and Directors' Stock Option Plan is as follows:

	SHARES AVAILABLE FOR GRANT	OUTSTANDING OPTIONS		WEIGHTED AVERAGE EXERCISE PRICE
		NUMBER OF SHARES	PRICE PER SHARE	
Balance at December 31, 1997.....	472,045	2,425,791	\$ 0.34 - \$17.00	\$ 6.98
Additional shares authorized.....	715,918	--	\$ --	\$ --
Options granted.....	(2,008,822)	2,008,822	\$ 4.56 - \$13.75	\$ 5.79
Options exercised.....	--	(415,106)	\$ 0.34 - \$13.75	\$ 3.44
Options canceled.....	1,367,588	(1,367,588)	\$ 0.78 - \$13.25	\$10.29
Balance at December 31, 1998.....	546,729	2,651,919	\$ 0.34 - \$17.00	\$ 4.92
Additional shares authorized.....	1,123,225	--	\$ --	\$ --
Options granted.....	(1,223,520)	1,223,520	\$ 9.75 - \$12.38	\$11.30
Options exercised.....	--	(282,132)	\$ 0.78 - \$13.00	\$ 3.69
Options canceled.....	295,785	(295,785)	\$ 0.82 - \$17.00	\$ 8.12
Options repurchased.....	118	--	\$ 0.82 - \$ 2.04	\$ 1.98
Balance at December 31, 1999.....	742,337	3,297,522	\$ 0.34 - \$17.00	\$ 7.11
Additional shares authorized.....	800,000	--	\$ --	\$ --
Options granted.....	(315,471)	315,471	\$15.50 - \$47.19	\$25.62
Options exercised.....	--	(458,580)	\$ 0.78 - \$27.00	\$ 5.14
Options canceled.....	342,131	(342,131)	\$ 0.82 - \$35.00	\$10.37
Balance at December 31, 2000.....	1,568,997	2,812,282	\$ 0.34 - \$47.19	\$ 9.11

## OPTIONS OUTSTANDING

EXERCISE PRICE RANGE	NUMBER	WEIGHTED AVERAGE EXERCISE PRICE	WEIGHTED AVERAGE REMAINING CONTRACTUAL LIFE (IN YEARS)
\$ 0.34 - \$ 4.56	415,744	\$ 3.53	6.71
\$ 4.63 - \$ 4.75	905,223	\$ 4.75	7.56
\$ 4.81 - \$11.19	719,403	\$10.13	8.17
\$11.69 - \$47.19	771,912	\$16.26	8.98
\$ 0.34 - \$47.19	2,812,282	\$ 9.11	7.98

As of December 31, 2000 and 1999, there were 1,413,863 and 1,241,477 exercisable options outstanding at a weighted average exercise price of \$7.15 and \$5.07, respectively.

The Company has elected to follow Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and the related Interpretations in accounting for its employee stock options and options granted to non-employee directors because, as discussed below, the alternative fair value accounting provided for under Financial Accounting Standards Board Statement No. 123 ("SFAS 123"), "Accounting for Stock Based Compensation," requires use of option pricing valuation models that were not developed for use in valuing employee stock options and options granted to non-employee directors. Under APB 25, the Company generally recognizes no compensation expense with respect to such awards.

Pro forma information regarding net loss and net loss per share is required by SFAS 123 and has been determined as if the Company had accounted for its employee stock options under the fair value method

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

prescribed by the Statement. The fair value for these options was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted average assumptions: risk-free interest rates ranging from 5.06% to 6.80% for 2000, 4.78% to 6.31% for 1999, and 4.25% to 5.62% for 1998; a dividend yield of 0.0% for 2000, 1999 and 1998; a volatility factor of the expected market price of the Company's common stock of 1.032 for 2000, 0.958 for 1999 and 1.078 for 1998; and a weighted average expected life of the options of 5 years for 2000, 1999 and 1998.

The Company has recorded deferred compensation of approximately \$1,300,000 for the difference between the grant price and the deemed fair value of certain of the Company's common stock options granted in 1996. This amount is being amortized over the vesting period of the individual options, generally a 60-month period. Deferred compensation expense recognized in 2000, 1999 and 1998 related to these options grants totaled approximately \$137,000, \$289,000 and \$289,000, respectively.

The weighted average fair value of options granted during 2000, 1999 and 1998 with an exercise price below the fair market value of the Company's common stock on the date of grant was none, none and \$3.79, respectively. The weighted average fair value of options granted during 2000, 1999 and 1998 with an exercise price equal to the fair market value of the Company's common stock on the date of grant was \$25.62, \$11.30 and \$5.81, respectively. The weighted average fair value of options granted during 2000, 1999 and 1998 with an exercise price greater than the fair market value of the Company's common stock on the date of grant was none, none and \$0.11, respectively.

The Company grants options to consultants from time to time in exchange for services performed for the Company. In general, these options vest over the contractual period of the consulting arrangement. The Company granted options to consultants to purchase 18,771, 7,500 and 26,500 shares of the Company's common stock in 2000, 1999 and 1998, respectively. The fair value of these options is being amortized to expense over the vesting term of the options. In addition, the Company will record any additional increase in the fair value of the option grant as the options vest. The Company recorded expense of \$121,000, \$6,000 and \$59,000 for the fair value of these options in 2000, 1999 and 1998, respectively. As of December 31, 2000, the fair value of the remaining unvested options to consultants is \$120,000.

The Company also grants common stock to consultants and research institutions in exchange for services performed for the Company. In 2000 and 1999, the Company issued 121,015 and 113,126 shares of common stock, respectively, in exchange for services. For these stock grants, the Company recognized an expense equal to the fair market value of the granted shares on the date of grant. In 2000, 1999 and 1998, the Company recognized approximately \$1,889,000, \$1,526,000 and \$172,000, respectively, of operating expenses in connection with stock grants to consultants and research institutions.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the vesting period of the options using the straight-line method. The Company's pro forma information follows:

	YEARS ENDED DECEMBER 31,		
	2000	1999	1998
	(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)		
Net loss.....	\$(45,833)	\$(46,449)	\$(11,410)
Pro forma net loss.....	\$(50,929)	\$(49,519)	\$(15,198)
Basic and diluted net loss per share as reported...	\$ (2.20)	\$ (3.00)	\$ (1.00)
Basic and diluted pro forma net loss per share.....	\$ (2.44)	\$ (3.20)	\$ (1.33)

## Employee Stock Purchase Plan

In July 1996, the Company adopted the 1996 Employee Stock Purchase Plan ("Purchase Plan") and reserved an aggregate of 300,000 shares of common stock for issuance thereunder. Under the terms of the

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

Purchase Plan, employees can choose to have up to 10% of their annual salary withheld to purchase the Company's common stock. The purchase price of the stock is 85% of the lower of the subscription date fair market value and the purchase date fair market value. Approximately 50% of the eligible employees have participated in the Purchase Plan. The Company does not recognize compensation cost related to employee purchase rights under the Purchase Plan.

Approximately 108,000, 78,000 and 54,000 shares have been issued under the Purchase Plan as of December 31, 2000, 1999 and 1998, respectively. To comply with the pro forma reporting requirements of SFAS 123, compensation cost is estimated for the fair value of the employees' purchase rights using the Black-Scholes model with the following weighted average assumptions: risk-free interest rates ranging from 5.96% to 6.06% for 2000, 5.06% to 5.74% for 1999 and 4.58% to 5.51% for 1998; a dividend yield of 0.0% for 2000, 1999 and 1998; a volatility factor of the expected market price of the Company's common stock of 1.032 for 2000, 0.958 for 1999 and 1.078 for 1998; and an expected life of the purchase right of 6 months for 2000, 1999 and 1998. Based upon these assumptions, the pro forma compensation cost estimated for the fair value of the employees' purchase rights was approximately \$160,000 for 2000, \$100,000 for 1999 and \$136,000 for 1998 has been included in the above pro forma information. As of December 31, 2000, 192,384 shares were available for issuance under the 1996 Employee Stock Purchase Plan.

## Common Shares Reserved for Future Issuance

At December 31, 2000, 5,706,039 shares of Common Stock are reserved for issuance upon exercise of options currently outstanding and options available for grant under the 1992 Stock Option Plan, 1996 Directors' Option Plan, 1996 Employee Stock Purchase Plan, conversion of outstanding convertible debentures and exercise of outstanding warrants.

## 12. COLLABORATIVE AGREEMENTS

In April 1995, the Company entered into a License and Research Collaboration Agreement with Kyowa Hakko (the "Kyowa Hakko Agreement"). Under the Kyowa Hakko Agreement, Kyowa Hakko agreed to provide \$16,000,000 of research funding over four years to support the Company's program to discover and develop in certain Asian countries a telomerase inhibitor for the treatment of cancer. In addition, the Company is entitled to receive future payments totaling \$7,500,000 upon the achievement of certain contractual milestones relating to drug development and regulatory progress, as well as royalty payments on product sales. Kyowa Hakko also purchased \$2,500,000 of Geron common stock in connection with the Company's initial public offering. Under the Kyowa Hakko Agreement, Geron exercises significant influence during the research phase and Kyowa Hakko exercises significant influence during the development and commercialization phases. Kyowa Hakko will pay for all clinical expenses associated with product approval in the licensed territory, which includes the countries of China, Hong Kong, India, Indonesia, Japan, Kampuchea, Korea, Laos, Malaysia, Myan Mar, the Philippines, Singapore, Taiwan, Thailand and Vietnam. The Kyowa Hakko Agreement provides that Kyowa Hakko will not pursue research and development independent of its collaboration with the Company with respect to telomerase inhibition for the treatment of cancer in humans until April 7, 2000, at the earliest (see extension below). Kyowa Hakko may terminate the agreement only in the event of breach or bankruptcy by the Company or in the event that both parties agree that it is no longer reasonably practical to pursue further research and development of an inhibitor of telomerase. In March 1997, the Kyowa Hakko Agreement was amended to extend its term until April 2000 and to make certain other changes in connection with the signing of the Pharmacia Agreement (as defined below).

In March 1997, the Company signed a License and Research Collaboration Agreement (the "Pharmacia Agreement") with Pharmacia Corporation to collaborate in the discovery, development and commercialization of a new class of anti-cancer drugs that inhibit telomerase. Under the collaboration, Pharmacia agreed to

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

provide \$15,000,000 of research funding over three years. In addition, the Company is entitled to receive future payments upon the achievement of certain contractual milestones relating to drug development and regulatory progress, as well as royalty payments on future product sales. Further, the Company has an option to exercise co-promotion rights in the United States. The companies also signed a Stock Purchase Agreement providing for an initial equity investment of \$2,000,000 in Geron by Pharmacia, at a premium, which was completed in January 1997. In addition, on April 25, 1997 and March 27, 1998, Pharmacia purchased an aggregate of \$8,000,000 (\$4,000,000 on each date) of Geron common stock at a premium. Through the Pharmacia and Kyowa Hakko Agreements, the Company has granted to Pharmacia and Kyowa Hakko exclusive worldwide rights to its telomerase inhibition technology, with exception to certain antisense, gene therapy and vaccine technologies outside Asia, for the treatment of cancer in humans.

In March 1997, the Company entered into a three-way agreement with Pharmacia and Kyowa Hakko to clarify the rights and obligations of the parties under the two existing agreements and formalize a high level of cooperation among all of the parties. These rights include coordination of research and development, licensing of technology, manufacturing, disclosure of know-how and co-marketing and co-promotion of products. Under the three-way collaboration, the original individual agreements between the Company and Kyowa Hakko and the Company and Pharmacia remain intact.

In January and February 2000, the Company extended its three-way License and Research Collaboration Agreement with Pharmacia and Kyowa Hakko, respectively. The agreement extends the research and compound selection periods one additional year each, to March 2001 and March 2002, respectively. As of December 31, 2000, the Company had received additional research funding of \$5,750,000 from Pharmacia and Kyowa Hakko as a result of the extension.

In January 2001, Geron and Pharmacia agreed to terminate the license and research collaboration agreement. Pharmacia returned all product rights for telomerase inhibitors to the Company. The extension agreement with Kyowa Hakko remains unchanged.

Costs associated with research and development activities attributable to the above agreements approximate revenue recognized. Under these agreements, revenues of approximately \$6,500,000, \$5,200,000 and \$6,700,000, were recognized in 2000, 1999 and 1998, respectively. No milestone payments have been received or earned to date.

In December 1997, the Company entered into a License, Product and Marketing Agreement with Boehringer Mannheim (the "Boehringer Mannheim Agreement") to develop and commercialize research and clinical diagnostic products for cancer on an exclusive, worldwide basis. Under the Boehringer Mannheim Agreement, Boehringer Mannheim provided reimbursement for research previously conducted and is responsible for all clinical, regulatory, manufacturing, marketing and sales efforts and expenses. The Company is entitled to receive future payments upon achievement of certain contractual milestones relating to levels of product sales, as well as royalties on product sales. Further, the Company has an option to exercise co-promotion rights in the United States. After the acquisition of Boehringer Mannheim by Roche in early 1998, all licenses and agreements pertaining to telomerase-based cancer diagnostics entered into with Boehringer Mannheim have been transferred to Roche Diagnostics. In accordance with the Boehringer Mannheim Agreement, the Company received approximately \$31,000 and \$18,000 in royalty payments from Roche during 2000 and 1999, respectively.

In March 1999, the Company entered into an exclusive License, Product and Marketing Agreement with Clontech (the "Clontech Agreement") to develop, manufacture and sell six cell lines. Under the terms of the Clontech Agreement, Clontech will be responsible for manufacturing and marketing of products resulting from the use of the Company's telomerase technology. The Clontech Agreement provides for Clontech to pay an up-front technology licensing fee of \$50,000, and for Clontech and Geron to equally share operating profits generated from the sale of the cell lines. Specifically, the Company is to receive reimbursement funding of the

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

greater of \$25,000 or 10% of sales on December 31, 1999, December 31, 2000, and December 31, 2001. Clontech launched its first product using the Company's telomerase technology in September 1999, but sales did not exceed \$250,000. Therefore, the Company recognized revenue of \$25,000 during 1999. In addition, the Company recognized approximately \$29,000 and \$9,000 in shared profits from sales of cell lines in 2000 and 1999, respectively.

## 13. INCOME TAXES

As of December 31, 2000, the Company had federal and state net operating loss carryforwards of approximately \$109,000,000 which will expire at various dates beginning 2006 through 2020, if not utilized. The Company also had federal research and development tax credit carryforwards of approximately \$1,700,000 which will expire at various dates beginning in 2007 through 2020, if not utilized.

Utilization of the net operating losses and credits may be subject to a substantial annual limitation due to the ownership change provisions of the Internal Revenue Code of 1986 and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization.

Significant components of the Company's deferred tax assets as of December 31 are as follows:

	2000	1999
	-----	-----
	(IN THOUSANDS)	
Net operating loss carryforwards.....	\$ 37,800	\$ 34,600
Research credits (expiring 2007 - 2020).....	3,000	3,900
Capitalized research and development.....	4,900	3,200
Other -- net.....	1,900	(200)
	-----	-----
Total deferred tax assets.....	47,600	41,500
Valuation allowance for deferred tax assets.....	(47,600)	(41,500)
	-----	-----
Net deferred tax assets.....	\$ --	\$ --
	=====	=====

Because of the Company's history of losses, the net deferred tax asset has been fully offset by a valuation allowance. The valuation allowance decreased by \$6,100,000 and increased by \$17,200,000 during the years ended December 31, 2000 and 1999, respectively.

Approximately \$2,400,000 of the valuation allowance for deferred tax assets relates to benefits of stock option deductions which, when recognized, will be allocated directly to contributed capital.

## 14. SEGMENT INFORMATION

The Company adopted Statement of Financial Accounting Standards No. 131, "Disclosures about Segments of an Enterprise and Related Information" ("SFAS 131") in fiscal year ended December 31, 1998. SFAS 131 establishes standards for reporting information regarding operating segments in annual financial statements and requires selected information for those segments to be presented in interim financial reports issued to stockholders. SFAS 131 also establishes standards for related disclosures about products and services and geographic areas. Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision making group, in making decisions how to allocate resources and assess performance. The Company's chief decision maker, as defined under SFAS 131, is the Chief Executive Officer. To date, the Company has viewed its operations as principally one segment, the discovery and development of therapeutic and diagnostic products for oncology and regenerative medicine and research tools for drug discovery. As a result, the financial information disclosed herein materially represents all of the financial information related to the Company's principal operating segment.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

## 15. STATEMENT OF CASH FLOWS DATA

	YEARS ENDED DECEMBER 31,		
	2000	1999	1998
	----- (IN THOUSANDS) -----		
Supplementary information			
Interest paid.....	\$ 250	\$ 299	\$ 246
Supplementary investing and financing activities			
Common stock issued under purchase plan.....	\$ 317	\$ 208	\$ 154
Notes receivable from stockholders.....	\$ 70	\$ (70)	\$ (4)
Conversion of convertible debentures.....	\$9,077	\$11,059	\$ --
Warrants to purchase common stock and common stock issued for services.....	\$1,098	\$ --	\$ --
Accretion of premium on convertible preferred stock.....	\$ --	\$ (73)	\$ (578)
Redeemable convertible preferred stock.....	\$ --	\$ --	\$ 3,610
Acquired research funding obligation.....	\$ --	\$17,187	\$ --
Common stock issued in connection with acquisition.....	\$ --	\$24,386	\$ --
Deferred compensation related to options granted.....	\$ --	\$ --	\$ (1,292)
Unrealized loss on equity investments.....	\$ 50	\$ --	\$ --
Net unrealized gain (loss) on available-for-sale securities.....	\$ 384	\$ (144)	\$ 30

## 16. QUARTERLY RESULTS (UNAUDITED)

YEAR ENDED DECEMBER 31, 2000	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
	----- (IN THOUSANDS, EXCEPT PER SHARE AMOUNTS) -----			
Revenues.....	\$ 1,271	\$ 1,776	\$ 1,796	\$ 1,766
Operating expenses.....	(10,236)	(8,339)	(8,140)	(6,106)
Net loss applicable to common stockholders.....	(8,484)	(16,498)	(4,928)	(15,923)
Basic and diluted net loss per share.....	\$ (0.45)	\$ (0.77)	\$ (0.23)	\$ (0.73)

YEAR ENDED DECEMBER 31, 1999	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
	----- (IN THOUSANDS, EXCEPT PER SHARE AMOUNTS) -----			
Revenues.....	\$ 1,495	\$ 1,346	\$ 1,276	\$ 1,295
Operating expenses.....	(5,368)	(29,342)	(8,238)	(6,600)
Net loss applicable to common stockholders.....	(3,394)	(28,022)	(6,940)	(8,093)
Basic and diluted net loss per share.....	\$ (0.25)	\$ (1.87)	\$ (0.42)	\$ (0.48)

Basic and diluted net losses per share are computed independently for each of the quarters presented. Therefore, the sum of the quarters may not be equal to the full year net loss per share amounts.

## 17. SUBSEQUENT EVENTS (UNAUDITED)

In January 2001, Geron and Pharmacia agreed to terminate the license and research collaboration agreement. Pharmacia returned all product rights for telomerase inhibitors to the Company. The extension agreement with Kyowa Hakko remains unchanged.

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

Not Applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Identification of Directors

The information required by this Item concerning the Company's directors is incorporated by reference from the section captioned "Proposal 1: Election of Directors" contained in the Company's Definitive Proxy Statement related to the Annual Meeting of Stockholders to be held May 18, 2001, to be filed by the Company with the Securities and Exchange Commission (the "Proxy Statement").

Identification of Executive Officers

The information required by this Item concerning the Company's executive officers is set forth in Part I of this Report.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is incorporated by reference from the section captioned "Executive Compensation" contained in the Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The information required by this Item is incorporated by reference from the section captioned "Security Ownership of Certain Beneficial Owners and Management" contained in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information required by this Item is incorporated by reference from the section captioned "Certain Transactions" and "Executive Compensation" contained in the Proxy Statement.

PART IV

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

(a)(1) CONSOLIDATED FINANCIAL STATEMENTS

Included in Part II of this Report:

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	----
Report of Ernst & Young LLP, Independent Auditors.....	41
Consolidated Balance Sheets -- December 31, 2000 and 1999...	42
Consolidated Statements of Operations -- Three years ended December 31, 2000, 1999 and 1998.....	43
Consolidated Statement of Stockholders' Equity -- Three years ended December 31, 2000.....	44
Consolidated Statements of Cash Flows -- Three years ended December 31, 2000, 1997 and 1998.....	46
Notes to Consolidated Financial Statements.....	47

(2) FINANCIAL STATEMENT SCHEDULES

Financial statement schedules are omitted because they are not required or the information is disclosed in the financial statements listed in item 14(a)(1).

## (3) EXHIBITS.

EXHIBIT NUMBER -----	DESCRIPTION -----
2.1(1)+	Sale and Purchase Agreement dated May 3, 1999, among the Registrant and each of the shareholders of Roslin
2.2(1)	Escrow Agreement dated May 3, 1999, among the Registrant, a committee acting for and on behalf of the Warrantors, and U.S. Bank Trust National Association
3.1(2)	Amended and Restated Certificate of Incorporation of Registrant
3.2*	Certificate of Amendment of Restated Certificate of Incorporation of Geron Corporation
3.3*	Bylaws of Registrant
4.1(3)	Form of Common Stock Certificate
4.2(4)	Registration Rights Agreement dated March 27, 1998, among the Registrant Certain Investors
4.3(5)	Registration Rights Agreement dated as of December 10, 1998 among the Registrant and certain investors
4.4(6)	Registration Rights Agreement, dated April 30, 1999, by and among the Registrant and each of the Shareholders of Roslin
4.5(7)	Registration Rights Agreement dated as of September 30, 1999 by and between the Registrant and RGC International Investors, LDC
4.5(8)	Form of Warrant
4.5(9)	Form of Debenture
10.1(3)	Form of Indemnification Agreement
10.2(10)	1992 Stock Option Plan, as amended
10.3(3)	1996 Employee Stock Purchase Plan
10.4(11)	1996 Directors' Stock Option Plan, as amended
10.6(3)+	Agreement with Respect to Option dated August 31, 1992 between Registrant and Cold Spring Harbor Laboratory and Amendments No. 1 and 2 thereto dated May 3, 1993 and January 1994
10.7(3)+	Patent License Agreement dated September 8, 1992 between Registrant and University of Texas Southwestern medical Center at Dallas
10.8(3)+	Sponsored Research Agreement dated as of September 8, 1992 between the Registrant and University of Texas Southwestern Medical Center at Dallas
10.9(3)+	Exclusive License Agreement dated February 2, 1994 between the Registrant and the Regents of the University of California
10.10(3)+	License and Research Collaboration Agreement dated April 24, 1995 between the Registrant and Kyowa Hakko Kogyo Co., Ltd., and Amendment No. 1 thereto dated July 15, 1995
10.11(3)+	Standard Nonexclusive License Agreement dated January 1, 1996 between the Registrant and Wisconsin Alumni Research Foundation
10.12(3)	Business Park Lease dated March 25, 1996 between the Registrant and David D. Bohannon Organization
10.13(3)	Business Park Lease dated March 25, 1996 between the Registrant and David D. Bohannon Organization and Amendments Nos. 1, 2 and 3 thereto dated July 26, 1993, February 22, 1994 and March 25, 1996, respectively
10.14(3)	Equipment Financing Agreement dated January 5, 1992 between the Registrant and Lease Management Services, Inc.
10.15(3)	Master Lease Agreement dated January 5, 1993 between the Registrant and Lease Management Services, Inc.
10.20(3)	Note Secured by Second Deed of Trust dated December 1993 between the Registrant and Calvin B. Harley
10.23(3)	Common Stock Warrant dated May 4, 1994, issued by the Registrant to Cold Spring Harbor Laboratory
10.25(12)	Common Stock Purchase Agreement dated December 20, 1996 between the Registrant and Pharmacia & Upjohn S.p.A.

EXHIBIT NUMBER	DESCRIPTION
10.26(13)+	License and Research Collaboration Agreement dated March 23, 1997 between Registrant and Pharmacia & Upjohn S.p.A.
10.27(13)+	Amendment No. 2 to License and Research Collaboration Agreement dated April 24, 1995 between the Registrant and Kyowa Hakko Kogyo Co., Ltd. dated March 23, 1997
10.28(13)+	Three Party Agreement dated March 23, 1997 by and among Registrant, Kyowa Hakko Kogyo Co., Ltd. and Pharmacia & Upjohn S.p.A.
10.29(13)+	Common Stock Purchase Agreement dated March 23, 1997 between Registrant and Pharmacia & Upjohn S.p.A.
10.30(13)+	Intellectual Property License Agreement dated December 9, 1996 between Registrant and University Technology Corporation
10.33(13)	First Amendment to Note Secured by Deed of Trust with Harley
10.35(14)+	License Agreement dated August 1, 1997 between Registrant and The Johns Hopkins University
10.36(14)+	Research Agreement dated August 1, 1997 between Registrant and The Johns Hopkins University
10.37(15)+	License, Product Development, and Marketing Agreement by and between Registrant and Boehringer Mannheim, GmbH
10.38(16)	Securities Purchase Agreement dated as of March 27, 1998 between Registrant and Certain Investors
10.40(17)	Securities Purchase Agreement dated as of December 10, 1998 among the Registrant and certain investors
10.42(1)+	Research and License Agreement dated May 3, 1999 by and between the Registrant, Roslin, and the Institute
10.43(1)+	License Agreement dated May 3, 1999, among the Registrant, Roslin and the Institute.
10.44(18)	Amendment No. 1 to the Securities and Purchase Agreement, dated as of June 17, 1999, by and among the Registrant and certain investors
10.45(18)	Amendment No. 1 to the Registration Rights Agreement, dated as of June 17, 1999, by and among the Registrant and certain investors
10.46(19)	Securities Purchase Agreement dated as of September 30, 1999 between Registrant and RGC International Investors, LDC
10.47(20)	License Agreement with Wisconsin Alumni Research Foundation
10.48(21)	Option Agreement with Wisconsin Alumni Research Foundation
10.49(22)	Amendment to the License Agreement with Wisconsin Alumni Research Foundation
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21.1*	List of Subsidiaries
23.1	Consent of Ernst & Young LLP, Independent Auditors
24.1	Power of Attorney (see signature page)

+ Certain portions of this Exhibit have been omitted for which confidential treatment has been requested and filed separately with the Securities and Exchange Commission.

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- (32) Incorporated by reference to Exhibit 4.4 of the Registrant's Current Report on Form 8-K filed on July 6, 2000.
- (33) Incorporated by reference to Exhibit 10.1 of the Registrant's Current Report on Form 8-K filed on September 26, 2000.

(b) REPORTS ON FORM 8-K.

(i) Geron has not filed any reports on Form 8-K during the last quarter of the period covered by the Form 10-K.

(c) INDEX TO EXHIBITS.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Menlo Park, State of California, on the 23rd day of March, 2001.

## GERON CORPORATION

By: /s/ THOMAS B. OKARMA

-----  
 Thomas B. Okarma  
 President and Chief Executive  
 Officer

## POWER OF ATTORNEY

KNOW BY ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints, jointly and severally, Thomas B. Okarma and David L. Greenwood, and each one of them, attorneys-in-fact for the undersigned, each with the power of substitution, for the undersigned in any and all capacities, to sign any and all amendments to this Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitutes, may do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned has executed this Power of Attorney as of the date indicated opposite his/her name.

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

SIGNATURE -----	TITLE -----	DATE ----
/s/ THOMAS B. OKARMA ----- Thomas B. Okarma	President, Chief Executive Officer and Director (Principal Executive Officer)	March 23, 2001
/s/ DAVID L. GREENWOOD ----- David L. Greenwood	Chief Financial Officer, Senior Vice President of Corporate Development, Treasurer and Secretary (Principal Financial and Accounting Officer)	March 23, 2001
/s/ ALEXANDER E. BARKAS ----- Alexander E. Barkas	Director	March 23, 2001
/s/ RONALD W. EASTMAN ----- Ronald W. Eastman	Director	March 23, 2001
/s/ EDWARD V. FRITZKY ----- Edward V. Fritzky	Director	March 23, 2001
/s/ THOMAS D. KILEY ----- Thomas D. Kiley	Director	March 23, 2001
/s/ ROBERT B. STEIN ----- Robert B. Stein	Director	March 23, 2001
/s/ JOHN P. WALKER ----- John P. Walker	Director	March 23, 2001

## EXHIBIT INDEX

EXHIBIT NUMBER -----	DESCRIPTION -----
2.1(1)+	Sale and Purchase Agreement dated May 3, 1999, among the Registrant and each of the shareholders of Roslin
2.2(1)	Escrow Agreement dated May 3, 1999, among the Registrant, a committee acting for and on behalf of the Warrantors, and U.S. Bank Trust National Association
3.1(2)	Amended and Restated Certificate of Incorporation of Registrant
3.2*	Certificate of Amendment of Restated Certificate of Incorporation of Geron Corporation
3.3*	Bylaws of Registrant
4.1(3)	Form of Common Stock Certificate
4.2(4)	Registration Rights Agreement dated March 27, 1998, among the Registrant Certain Investors
4.3(5)	Registration Rights Agreement dated as of December 10, 1998 among the Registrant and certain investors
4.4(6)	Registration Rights Agreement, dated April 30, 1999, by and among the Registrant and each of the Shareholders of Roslin
4.5(7)	Registration Rights Agreement dated as of September 30, 1999 by and between the Registrant and RGC International Investors, LDC
4.5(8)	Form of Warrant
4.5(9)	Form of Debenture
10.1(3)	Form of Indemnification Agreement
10.2(10)	1992 Stock Option Plan, as amended
10.3(3)	1996 Employee Stock Purchase Plan
10.4(11)	1996 Directors' Stock Option Plan, as amended
10.6(3)+	Agreement with Respect to Option dated August 31, 1992 between Registrant and Cold Spring Harbor Laboratory and Amendments No. 1 and 2 thereto dated May 3, 1993 and January 1994
10.7(3)+	Patent License Agreement dated September 8, 1992 between Registrant and University of Texas Southwestern medical Center at Dallas
10.8(3)+	Sponsored Research Agreement dated as of September 8, 1992 between the Registrant and University of Texas Southwestern Medical Center at Dallas
10.9(3)+	Exclusive License Agreement dated February 2, 1994 between the Registrant and the Regents of the University of California
10.10(3)+	License and Research Collaboration Agreement dated April 24, 1995 between the Registrant and Kyowa Hakko Kogyo Co., Ltd., and Amendment No. 1 thereto dated July 15, 1995
10.11(3)+	Standard Nonexclusive License Agreement dated January 1, 1996 between the Registrant and Wisconsin Alumni Research Foundation
10.12(3)	Business Park Lease dated March 25, 1996 between the Registrant and David D. Bohannon Organization
10.13(3)	Business Park Lease dated March 25, 1996 between the Registrant and David D. Bohannon Organization and Amendments Nos. 1, 2 and 3 thereto dated July 26, 1993, February 22, 1994 and March 25, 1996, respectively
10.14(3)	Equipment Financing Agreement dated January 5, 1992 between the Registrant and Lease Management Services, Inc.
10.15(3)	Master Lease Agreement dated January 5, 1993 between the Registrant and Lease Management Services, Inc.
10.20(3)	Note Secured by Second Deed of Trust dated December 1993 between the Registrant and Calvin B. Harley
10.23(3)	Common Stock Warrant dated May 4, 1994, issued by the Registrant to Cold Spring Harbor Laboratory
10.25(12)	Common Stock Purchase Agreement dated December 20, 1996 between the Registrant and Pharmacia & Upjohn S.p.A.

EXHIBIT NUMBER	DESCRIPTION
10.26(13)+	License and Research Collaboration Agreement dated March 23, 1997 between Registrant and Pharmacia & Upjohn S.p.A.
10.27(13)+	Amendment No. 2 to License and Research Collaboration Agreement dated April 24, 1995 between the Registrant and Kyowa Hakko Kogyo Co., Ltd. dated March 23, 1997
10.28(13)+	Three Party Agreement dated March 23, 1997 by and among Registrant, Kyowa Hakko Kogyo Co., Ltd. and Pharmacia & Upjohn S.p.A.
10.29(13)+	Common Stock Purchase Agreement dated March 23, 1997 between Registrant and Pharmacia & Upjohn S.p.A.
10.30(13)+	Intellectual Property License Agreement dated December 9, 1996 between Registrant and University Technology Corporation
10.33 (13)	First Amendment to Note Secured by Deed of Trust with Harley
10.35(14)+	License Agreement dated August 1, 1997 between Registrant and The Johns Hopkins University
10.36(14)+	Research Agreement dated August 1, 1997 between Registrant and The Johns Hopkins University
10.37(15)+	License, Product Development, and Marketing Agreement by and between Registrant and Boehringer Mannheim, GmbH
10.38(16)	Securities Purchase Agreement dated as of March 27, 1998 between Registrant and Certain Investors
10.40(17)	Securities Purchase Agreement dated as of December 10, 1998 among the Registrant and certain investors
10.42(1)+	Research and License Agreement dated May 3, 1999 by and between the Registrant, Roslin, and the Institute
10.43(1)+	License Agreement dated May 3, 1999, among the Registrant, Roslin and the Institute.
10.44(18)	Amendment No. 1 to the Securities and Purchase Agreement, dated as of June 17, 1999, by and among the Registrant and certain investors
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## CONSENT OF ERNST &amp; YOUNG LLP, INDEPENDENT AUDITORS

We consent to the incorporation by reference in the Registration Statements on Form S-8 pertaining to the 1992 Stock Option Plan (No. 333-45762) and Form S-3 (Nos. 333-40984 and 333-32256) and in the related prospectuses of Geron Corporation of our report dated February 9, 2001, with respect to the consolidated financial statements of Geron Corporation included in the Annual Report (Form 10-K) for the year ended December 31, 2000.

/s/ Ernst & Young LLP

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Ernst & Young LLP

San Francisco, California  
March 23, 2001