

GERON CORPORATION  
Form 424B5  
October 15, 2003

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**The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting offers to buy these securities, in any state where the offer or sale is not permitted.**

Filed Pursuant to Rule 424(b)(5)  
Registration No. 333-81596

PRELIMINARY PROSPECTUS  
SUPPLEMENT

Subject to Completion

October 15, 2003

(To Prospectus dated February 14, 2002)

5,000,000 Shares

## Geron Corporation

### Common Stock

We are offering all of the 5,000,000 shares of our common stock offered by this prospectus supplement.

Our common stock is traded on the Nasdaq National Market under the symbol GERN. On October 13, 2003, the last reported sale price of our common stock on the Nasdaq National Market was \$14.41 per share.

**Investing in our common stock involves a high degree of risk. Before buying any shares, you should carefully read the discussion of material risks of investing in our common stock in Risk factors beginning on page S-10 of this prospectus supplement.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.**

	Per share	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to us	\$	\$

The underwriters may also purchase from us up to 750,000 additional shares of our common stock at the public offering price, less the underwriting discounts and commissions, to cover over-allotments, if any, within 30 days from the date of this prospectus supplement.

The underwriters are offering the shares of our common stock as described in Underwriting. Delivery of the shares will be made on or about October , 2003.

*Sole Book-Running Manager*

**UBS Investment Bank**

**SG Cowen**

**Lazard**

**Needham & Company, Inc.**

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You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide information different from that contained or incorporated by reference in this prospectus supplement or the accompanying prospectus. Neither the delivery of this prospectus supplement nor the sale of shares of common stock means that information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus is correct after the date of this prospectus supplement. These documents do not constitute an offer to sell or solicitation of an offer to buy these shares of common stock in any circumstance under which the offer or solicitation is unlawful.

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Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus supplement and the accompanying prospectus to the company, Geron, we, us, our, or similar references mean Geron Corporation and its subsidiary.

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## Prospectus supplement summary

This summary highlights information contained in this prospectus supplement and the accompanying prospectus. Because it is a summary, it does not contain all the information you should consider before investing in our common stock. You should carefully read this entire prospectus supplement and the accompanying prospectus, including the Risk factors sections and the documents incorporated by reference, before making an investment decision.

### **BUSINESS OVERVIEW**

We are a biopharmaceutical company focused on developing and commercializing therapeutic and diagnostic products for cancer based on our telomerase technology, and cell-based therapeutics using our human embryonic stem cell technology. We believe we are the leading company in both the field of telomerase and the field of human embryonic stem cells.

#### **Cancer therapeutics and diagnostics**

We are developing, alone or with collaborators, anti-cancer therapies based on telomerase inhibitors, telomerase therapeutic vaccines and oncolytic viruses, and diagnostics based on telomerase detection. We believe the enzyme telomerase is an ideal target for cancer therapeutics and diagnostics because it appears to be both universal it is expressed in all major types of cancers studied to date and specific it is not expressed in most normal cells. We believe that we have the dominant patent position in the field of telomerase.

Our most advanced therapeutic program is a telomerase therapeutic vaccine that is currently being evaluated in a Phase I/II study in patients with metastatic prostate cancer. In April 2003, we presented preliminary data from the three-vaccination arm of the trial, involving 12 patients. All of those patients showed a significant immune response specific to telomerase, with evidence of an effect on tumor growth in several cases. On September 22, 2003, we presented preliminary results from the first two patients of the six-vaccination arm of the trial. These two patients showed substantially higher levels of T-cell reactivity than typically seen in cancer vaccines: more than 1% of the total T-cell population sampled in those patients was specifically reactive to telomerase. None of the patients in either group has shown treatment-related adverse effects so far. We expect treatment of all 12 patients in the six-vaccination group to be completed by the end of 2003, at which time we will be able to evaluate results from all 24 patients.

In parallel, we are developing novel compounds that treat cancer by directly inhibiting telomerase at its active site. Our compounds, GRN163 and GRN163L, are in preclinical animal toxicology and efficacy studies. These compounds represent a proprietary class of short-chain oligonucleotides. Both compounds have demonstrated significant telomerase inhibitory activity at very low concentrations in biochemical assays and various cellular systems. Geron and its collaborators have so far tested GRN163 *in vitro* on 13 different types of cancer cells and demonstrated significant inhibition of telomerase activity in all of them. In animals, GRN163 has been shown to inhibit the growth of each of the six types of cancers in which we and our collaborators have tested it. In these animal studies, the compounds appear to be safe and effective when administered at an appropriate dose either systemically or locally. GRN163L has improved pharmacokinetic characteristics that suggest it should be effective in inhibiting telomerase in tumor cells when administered intermittently (one injection every few days). We are targeting completion of the preclinical studies by mid-2004, after which we expect to prepare and file an IND for one or both of these compounds.

In addition, through our partners, we are participating in the development of genetically engineered viruses that will infect and kill cancer cells, which express telomerase, and not kill normal cells, which do not express telomerase.

Through Roche Diagnostics, we are participating in the development of product candidates using telomerase as a cancer marker for applications in early diagnosis, patient monitoring and screening.

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The results to date in a bladder cancer study conducted by Roche indicate that this diagnostic is potentially both sensitive and specific in an application for which there is now no comparable non-invasive diagnostic test.

### **Human embryonic stem cell therapeutics**

Geron is developing cell-based therapeutics for several diseases based on differentiated cells derived from human embryonic stem cells (hESCs), including neural cells for spinal cord injury and Parkinson's disease, cardiomyocytes for heart disease, pancreatic islet  $\beta$  cells for diabetes, osteoblasts for osteoporosis, chondrocytes for osteoarthritis, and hematopoietic cells for blood diseases and to prevent immune rejection of the other cell types. We have developed proprietary methods to grow, maintain and scale up undifferentiated hESCs and differentiate them into therapeutically relevant cells. We are now testing five different therapeutic cell types in animal models. In two of these cell types, we have preliminary results indicating efficacy as evidenced by functional recovery of the treated animals. After completion of these studies, we expect to begin one or more Phase I clinical trials, most likely including treatment for spinal cord injury. We own or have licenses to core intellectual property and critical enabling technology in this field.

## **OUR TELOMERASE-BASED CANCER PROGRAMS**

### **Telomeres and telomerase background**

Telomeres, located at the ends of chromosomes, are key genetic elements involved in the regulation of the cellular aging process. 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. Telomeres thus serve as a molecular clock for cellular aging.

Telomerase is an enzyme that is capable of restoring telomere length or resetting the molecular clock. During tumor progression, telomerase is abnormally activated in all major cancer types. We and others have shown that at least 30 types of cancers express telomerase, and we have not identified any significant cancer type that does not express telomerase. While telomerase does not cause cancer (which is caused by mutations of growth-control genes in cells), the presence of telomerase 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.

Although telomerase is expressed in cancer cells, it is not expressed in most normal cells. That gives telomerase the potential of being both a universal as well as a highly specific cancer target. This specificity means that drugs and biologics that attack cancer cells by targeting telomerase may leave other cells unaffected, and thus should have fewer side effects than conventional chemotherapeutic agents that attack many cancer and non-cancer cells at once.

### **Telomerase therapeutic vaccine**

Our most advanced therapeutic program is a telomerase cancer vaccine. The goal of therapeutic cancer vaccines is to teach the patient's own immune system to attack cancer cells while sparing other cells. This is done by exposing the immune system to a substance (an antigen) that is as specific to cancer cells as possible, thus inducing an immune response to any cells that present that antigen. We believe that telomerase's characteristics make it an ideal antigen for cancer vaccines.

The telomerase vaccine being tested at Duke University Medical Center generates cytotoxic T-cells specific for telomerase, and those T-cells then attack cancer cells that express telomerase while not affecting most normal cells. The Duke Phase I/II clinical trial uses an *ex vivo* process. Dendritic cells (the most efficient antigen-presenting cells) are isolated from the patient's blood, pulsed with telomerase RNA, and then returned to the patient's body where they instruct cytotoxic T-cells to kill tumor cells that express telomerase.

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In total, 24 patients with metastatic prostate cancer are being enrolled in the Duke study. Twelve of those patients have received three weekly vaccinations and 12 are receiving six weekly vaccinations. None of the patients in either group has shown treatment-related adverse effects so far. All patients in the three-vaccination group showed a significant immune response specific to telomerase. Eight of those patients had significantly elevated levels of cancer cells circulating in their blood before the trial. After treatment those levels were reduced to normal (a reduction from six-fold to 1000-fold) in six of those eight. In addition, three of the patients in the three-vaccination group had rising levels of PSA (prostate specific antigen) when they entered the study. Those levels stabilized or declined in all three patients for three months or more after treatment. Preliminary results from the first two patients in the six-vaccination group showed a significant immune response (more than 1% of the total T-cell population sampled in those patients was specifically reactive to telomerase), and there are indications that the immune response may continue well after the sixth vaccination. We expect the remaining patients in the six-vaccination group to be treated by the end of 2003.

We have a collaboration agreement with Merix Biosciences, which holds the rights for the *ex vivo* dendritic cell processing technology used in the Duke clinical trial. We own the rights to the telomerase antigen and its use in therapeutic vaccines. We have also granted a non-exclusive license to Dendreon Corporation to develop an *ex vivo* telomerase vaccine using Dendreon's antigen-presenting system.

In addition, we are pursuing the development of *in vivo* telomerase cancer vaccines. Geron scientists have demonstrated that direct, *in vivo* vaccination in tumor-bearing mice elicits a telomerase-specific immune response and causes reduced growth of the animals' tumors. Direct vaccination would eliminate the need for manipulation of dendritic cells in culture and potentially allow straightforward vaccination procedures to be available for all cancer patients in any oncology clinic. We have granted a license to evaluate telomerase for *in vivo* vaccines, with the expectation that if the evaluation is successful, it will result in a co-development arrangement.

### **Telomerase inhibitors**

We have designed and synthesized a special class of short-chain nucleic acid molecules, known as oligonucleotides, to target the template region, or active site, of telomerase. These oligonucleotides have demonstrated highly potent telomerase inhibitory activity at very low concentrations in biochemical assays and various cellular systems. Research by our collaborators has shown that these compounds inhibit the growth of malignant human glioblastoma (brain cancer) cells, prostate cancer cells, lymphoma, myeloma, hepatocellular carcinoma (liver cancer) and cervical cancer cells in animals.

Our compounds GRN163 and GRN163L are direct enzyme inhibitors, not antisense compounds. They are much smaller (lower molecular weight) than typical antisense compounds or other oligonucleotide drug candidates, and we expect them to be administered either locally or systemically. They do not inhibit other critical nucleic acid-modifying enzymes and do not appear to be toxic to normal cells at concentrations needed to inhibit telomerase in tumor cells. Both compounds use a special thiophosphoramidate chemical backbone, for which we acquired controlling patents in March 2002. Both compounds are now in preclinical animal toxicology and efficacy studies. Intratumoral administration of GRN163 in an animal model of human glioblastoma resulted in complete tumor eradication in five of seven treated rats without any toxicity and significantly extended their survival compared to untreated controls. Intravenous administration in a study of animals bearing disseminated human multiple myeloma substantially reduced tumor growth and resulted in a 50% increase in survival compared to controls. GRN163L is identical in structure to GRN163 except that it has a lipid attached to one end of the molecule, which appears to improve its pharmacokinetics and should make its manufacture more efficient and less expensive. The improved pharmacokinetic characteristics suggest that it should be effective in inhibiting telomerase in tumor cells when administered intermittently (one injection every few days).



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### **Oncolytic virus**

Our third anti-cancer therapeutic strategy utilizes viruses that have been manipulated or engineered to have oncolytic, or cancer-killing, properties, enabling them to selectively target and destroy cancer cells which express telomerase. We have cloned the promoter region of the telomerase gene and employ it to switch on genes required for the virus to replicate within the cancer cell. Our data indicate that when tumor cells are infected with the virus, the virus multiplies or replicates within the cancer cells and causes the rupture and death of the tumor cells. When these same engineered viruses infect normal somatic cells, there is no killing effect and the virus dissipates. This selective lytic effect on cancer has been demonstrated *in vitro* in seven different tumor types: prostate, liver, lung, pancreatic, colorectal, breast and ovarian cancers. These *in vitro* results have been extended to animal models of liver and prostate cancer with similar effects against the animals' tumors while sparing normal cells.

We granted a non-exclusive license to Genetic Therapy, Inc. (GTI), a subsidiary of Novartis AG, to use our telomerase promoter technology to develop an oncolytic virus product. GTI's oncolytic virus assets and our license to GTI were recently acquired by Cell Genesys, which also has its own oncolytic virus program.

### **Cancer diagnostics**

Through Roche Diagnostics, we are participating in the development of fluids-based telomerase detection tests for clinical *in vitro* diagnostics. The tests are based on telomerase detection assays that we have already commercialized for the research-use-only market. Clinical research data generated by Roche indicates that an assay for telomerase is a sensitive and specific test for detecting bladder cancer with potential utility in early detection screening and monitoring of patients for recurrence. There is currently no similar diagnostic test for bladder cancer on the market, and patients who have had bladder cancer now periodically undergo invasive cystoscopy to screen for recurrence.

## **OUR HUMAN EMBRYONIC STEM CELL THERAPEUTICS AND RESEARCH TOOLS**

### **Human embryonic stem cells**

Stem cells are self-renewing cells that are able to develop into functional, differentiated cells. Among the several kinds of stem cells, hESCs are distinct because they are pluripotent, meaning that they can develop into all cells and tissues in the body. hESCs also express telomerase and can therefore multiply or replicate indefinitely. The ability of hESCs to divide indefinitely in the undifferentiated state without losing pluripotency is a characteristic that distinguishes them from all other stem cells discovered to date in humans. hESCs are derived from *in vitro* fertilized blastocysts or very early-stage embryos donated with informed consent. Other stem cells such as blood or gut stem cells express telomerase at very low levels or only periodically, and therefore age, limiting their use in research and therapeutic applications. Some studies have described exceedingly rare subpopulations of adult mesenchymal stem cells (cells capable of becoming fat, bone, cartilage and muscle tissues) as differentiating into multiple cell lineages. To date, these cells have proven extremely difficult to culture and do not appear suitable for large-scale production. In contrast, hESCs can be expanded in culture indefinitely and can be scaled up for product manufacture.

We funded the work by James Thomson of the University of Wisconsin-Madison that resulted in the first derivation of hESCs. We are developing hESCs to serve as standardized starting material for the manufacture of cells for transplantation therapies.

### **Therapeutic applications using hESCs**

#### *Oligodendrocytes for spinal cord injury and dopaminergic neurons for Parkinson's disease*

We have derived both oligodendrocytes and dopaminergic neurons from hESCs in culture and have begun testing them in animal models to determine whether they can restore normal neural function. In our collaboration with researchers at the University of California, Irvine, we have shown proof-of-concept in spinal cord-injured rats which showed significant functional improvement after receiving

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transplants of hESC-derived oligodendrocyte progenitors. Transplant studies of dopamine-producing neurons in rodent models of Parkinson's disease are ongoing.

### *Cardiomyocytes for heart disease*

We have differentiated hESCs into cardiomyocytes that spontaneously contract and respond normally to cardiac drugs. We have transplanted these cells into animal models, and to date the cells appear to be engrafting and integrating with the myocardium in uninjured animals, as well as restoring cardiac function in animals with induced myocardial infarctions.

### *Islet cells for diabetes*

We have derived insulin-producing islet  $\beta$  cells from hESCs and are working to improve the yield of islet cells and characterize their secretion of insulin in response to glucose. We expect to begin transplanting the islets to animal models of diabetes before the end of 2003.

### *Osteoblasts for osteoporosis and non-union bone fractures*

We have made osteoblasts from hESCs and are now conducting preclinical tests in animals. Upon successful preclinical testing, we plan to test the cells in patients with non-union fractures (fractures of the long bones of the leg or arm that do not heal). If these trials are successful, we plan to test these cells in patients with severe refractory osteoporosis.

### *Chondrocytes for osteoarthritis*

We plan to derive chondrocytes from hESCs and, after successful *in vitro* and animal testing, treat patients with osteoarthritis by injecting these chondrocytes directly into their affected joints.

### *Hematopoietic cells for hematologic diseases and to prevent immune rejection*

We have derived hematopoietic stem cells from hESCs, and tests of these cells in animal models of bone marrow transplantation show engraftment of the cells. If these animal tests and other *in vitro* tests continue to be positive, hematopoietic stem cells produced from hESCs may find use not only in hematopoietic transplantation therapies, but also in procedures designed to prevent immune rejection of other hESC-derived transplanted cells. This approach could potentially eliminate the need for long-term use of immunosuppressive drugs in patients who receive transplants of hESC-based therapeutics.

## **Research tool applications using hESCs**

We are developing methods to derive standardized functional hepatocytes (liver cells) from hESCs to address the significant unmet need for a reliable predictor of the metabolism, biodistribution and toxicity of drug development candidates. If we are successful, these cells would provide a consistent source of normal human liver cells that can reliably predict how a new drug will affect the livers of the people who take it. We believe that an unlimited supply of human hepatocytes which retain normal drug-metabolizing enzyme activity would address the largest bottleneck in new drug research and accelerate the drug development process. In addition, the availability of 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; where a compound's activity will be correlated with an individual's genetic make-up. Geron scientists have succeeded in demonstrating that hepatocytes derived from hESCs express normal markers of hepatocyte function, including Phase 1 and Phase 2 drug-metabolizing enzymes.

## **OUR OTHER PROGRAMS**

### **Telomerase activation**

We are also working to develop product candidates to treat various degenerative diseases by controlled activation of telomerase. Published evidence by us and others has demonstrated that cellular aging caused by shortening telomeres, which occurs in numerous tissues throughout the human body, causes or contributes to chronic degenerative diseases and conditions including anemia, AIDS, macular

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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. Controlled activation of telomerase in normal cells can restore telomere length and thereby increase the lifespan of cells without altering their normal function or causing them to become cancerous.

**Nuclear transfer**

We acquired a significant patent estate in nuclear transfer with our acquisition in 1999 of 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 are exploiting this technology by granting licenses to others for applications in agriculture (such as cloned animals with superior commercial qualities), biopharmaceutical or industrial production (such as transgenic animals that produce commercially desired proteins), and xenotransplantation (such as animals whose tissues or organs could be used in humans).

**OUR STRATEGY**

Our long-term strategy is to exploit the substantial value in our telomerase and hESC technologies by developing and commercializing our own therapeutic and diagnostic products in selected large-market indications and forming collaborations and partnerships with other companies to take advantage of their financial, intellectual property, and scientific resources in the development and commercialization of therapeutic and diagnostic products in other indications.

Our nearer-term strategy is to demonstrate and realize that substantial value inherent in both technologies. In oncology, we will seek to accomplish this by continuing the preclinical and clinical development of our telomerase inhibitor compounds and our telomerase cancer vaccine, while relying on our partners in advancing our oncolytic virus and telomerase diagnostic product candidates through preclinical and clinical development. In human embryonic stem cell therapeutics, we will seek to accomplish this by demonstrating proof-of-concept in animals for each cell type, pursuing clinical development of one or more cell types, and granting licenses under our hESC patent estate to qualified third parties for disease indications not being pursued by us.

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**The offering**

Common stock we are offering 5,000,000 shares

Common stock to be outstanding after this offering 38,349,939 shares

Nasdaq National Market Symbol GERN

Use of proceeds We intend to use the net proceeds of this offering to fund research and development, including clinical trials of our product candidates, and for general corporate purposes. See Use of proceeds on page S-26.

The information above is based on 33,349,939 shares of common stock outstanding as of September 30, 2003. It does not include outstanding options and warrants as of September 30, 2003 as follows:

4 6,126,172 shares of our common stock issuable upon exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$9.15 per share; and

4 1,774,984 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$14.22 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the underwriters' over-allotment option to purchase up to 750,000 shares of common stock.

See Capitalization on page S-27 for additional information on potential issuances of securities.

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The tables below present summary consolidated statement of operations and balance sheet data of Geron Corporation and its subsidiary. We have derived our consolidated statement of operations data for the years ended December 31, 2000, 2001, and 2002, from our audited consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus. We have derived our condensed consolidated balance sheet data as of June 30, 2003 and consolidated statement of operations data for each of the six months ended June 30, 2002 and 2003 from our unaudited consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus. The unaudited consolidated financial statements include, in our opinion, all adjustments (consisting only of normal recurring adjustments) that are necessary for a fair presentation of our financial position and results of operations for these periods. Operating results for the six months ended June 30, 2003 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2003 or any future periods. You should read the summary financial data set forth below in conjunction with Management's discussion and analysis of financial condition and results of operations along with our consolidated financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus.

Consolidated statement of operatns data:	Year ended December 31,			Six months ended June 30,	
	2000	2001	2002	2002	2003
(In thousands, except per share amounts)					
Revenues from collaborative agreements	\$ 6,500	\$ 3,280	\$ 566	\$ 530	\$ 72
License fees and royalties	109	340	682	207	475
<b>Total revenues</b>	<b>6,609</b>	<b>3,620</b>	<b>1,248</b>	<b>737</b>	<b>547</b>
Operating expenses:					
Research and development	23,548	29,018	31,573	18,310	14,736
General and administrative	9,273	9,621	5,375	3,049	2,508
<b>Total operating expenses</b>	<b>32,821</b>	<b>38,639</b>	<b>36,948</b>	<b>21,359</b>	<b>17,244</b>
Loss from operations	(26,212)	(35,019)	(35,700)	(20,622)	(16,697)
Interest and other income	5,922	5,860	2,549	1,536	670
Conversion expense(1)		(11,910)			(779)
Interest and other expense	(12,284)	(1,004)	(757)	(397)	(414)
Loss before cumulative effect of a change in accounting principle	(32,574)	(42,073)	(33,908)	(19,483)	(17,220)
Cumulative effect of a change in accounting principle(2)	(13,259)				
<b>Net loss</b>	<b>\$ (45,833)</b>	<b>\$ (42,073)</b>	<b>\$ (33,908)</b>	<b>\$ (19,483)</b>	<b>\$ (17,220)</b>
Basic and diluted net loss per share data:					
Loss per share before cumulative effect of a change in accounting principle	\$ (1.56)	\$ (1.90)	\$ (1.37)	\$ (0.79)	\$ (0.63)
Cumulative effect of a change in accounting principle	(0.64)				
<b>Net loss per common share</b>	<b>\$ (2.20)</b>	<b>\$ (1.90)</b>	<b>\$ (1.37)</b>	<b>\$ (0.79)</b>	<b>\$ (0.63)</b>
Shares used in computing net loss per share	20,869,791	22,121,833	24,661,733	24,582,423	27,193,803

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- (1) *In November 2001, we amended the terms of the series D convertible debentures and warrants and converted a portion of the outstanding series D convertible debentures. We recognized \$11.9 million as conversion expense related to this amendment and conversion. In May 2003, we amended the terms of the remaining series D convertible debentures and warrants. We recognized \$779,000 as conversion expense related to this amendment.*
- (2) *In November 2000, we adopted a new accounting principle which retroactively affected the calculation of the beneficial conversion features associated with the series C convertible debentures issued in September 1999 and the series D convertible debentures issued in June 2000. We recognized an additional \$13.3 million in non-cash interest expense to reflect the change in accounting principle.*

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Condensed consolidated balance sheet data:	As of June 30, 2003	
	Actual	As adjusted(1)
(In thousands)		
Cash, cash equivalents, restricted cash and marketable securities	\$ 53,816	\$ 121,043
Total assets	63,660	130,887
Working capital	47,743	114,970
Total long-term debt, non-current portion	2,679	2,679
Total stockholders' equity	52,143	119,370
Accumulated deficit	(243,003)	(243,003)

(1) As adjusted to reflect the receipt of the estimated net proceeds from the sale of common shares in this offering (assuming a public offering price of \$14.41 per share).

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**Risk factors**

*Our business is subject to various risks, including those described below. You should carefully consider the following risks, together with all of the other information included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference before investing in our common stock. Any of these risks could materially adversely affect our business, operating results and financial condition.*

**RISKS RELATED TO OUR BUSINESS**

**Our business is at an early stage of development.**

Our business is at an early stage of development, in that we do not yet have product candidates in late-stage clinical trials or on the market. Only one of our product candidates, a telomerase therapeutic cancer vaccine, is in clinical trials. This product is being studied in a Phase I/II clinical trial being conducted by an academic institution. Our lead anti-cancer compound, GRN163, is in preclinical testing. Our ability to develop product candidates that progress to and through clinical trials is subject to our ability to, among other things:

have success with our research and development efforts;

select therapeutic compounds for development;

obtain the required regulatory approvals; and

manufacture and market resulting products.

Potential lead drug compounds or product candidates identified through our research programs will require significant preclinical and clinical testing prior to regulatory approval in the United States and other countries. Our product candidates and compounds we have identified may prove to have undesirable and unintended side effects or other characteristics adversely affecting their safety, efficacy or cost-effectiveness that could prevent or limit their commercial use. In addition, our cancer vaccine and telomerase inhibitor product candidates may not prove to be more effective for treating cancer than current therapies. Accordingly, we may have to delay or abandon efforts to research, develop or obtain regulatory approval to market our product candidates. In addition, we will need to determine whether any of our potential products can be manufactured in commercial quantities at an acceptable cost. Our research and development efforts may not result in a product that can be approved by regulators or marketed successfully. Because of the significant scientific, regulatory and commercial milestones that must be reached for any of our development programs to be successful, any program may be abandoned, even after we have expended significant resources on the program, such as our investment in telomerase technology, which could cause a sharp drop in our stock price.

The science and technology of telomere biology and telomerase, human embryonic stem cells, and nuclear transfer are relatively new. There is no precedent for the successful commercialization of product candidates based on our technologies. These development programs are therefore particularly risky.

**We have a history of losses and anticipate future losses, and continued losses could impair our ability to sustain operations.**

We have incurred operating losses every year since our operations began in 1990. As of June 30, 2003, our accumulated net loss was approximately \$243.0 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 and,



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**Risk factors**

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as our development efforts and clinical testing activities continue, our operating losses may increase in size. Substantially all of our revenues to date have been research support payments under collaboration agreements. We may be unsuccessful in entering into any new corporate collaboration that results in revenues. We do not expect that the revenues generated from these arrangements will be sufficient alone to continue or expand our research or development activities and otherwise sustain our operations.

We are unable to estimate at this time whether we will receive any revenue from the sale of diagnostic product candidates and telomerase-immortalized cell lines, and do not currently expect to receive significant revenues from the sale of these product candidates, if developed. 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 also expect to experience negative cash flow for the foreseeable future as we fund our operating losses and capital expenditures. This will result in decreases in our working capital, total assets and stockholders' equity, which may not be offset by future financings. We will need to generate significant revenues to achieve profitability. We may not be able to generate these revenues, and we may never achieve profitability. Our failure to achieve profitability could negatively impact the market price of our common stock. Even if we do become profitable, we cannot assure you that we would be able to sustain or increase profitability on a quarterly or annual basis.

**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 candidates, and we cannot assure you that our existing capital resources, the proceeds of this offering, interest income and equipment financing arrangements will be sufficient to fund our current and planned operations. The timing and degree of any future capital requirements will depend on many factors, including:

- 4 the accuracy of the assumptions underlying our estimates for our capital needs in 2003 and beyond;
- 4 scientific progress in our research and development programs;
- 4 the magnitude and scope of our research and development programs;
- 4 our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- 4 our progress with preclinical development and clinical trials;
- 4 the time and costs involved in obtaining regulatory approvals;
- 4 the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- 4 the number and type of product candidates that we pursue.

We do not have any committed sources of capital. Additional financing through strategic collaborations, public or private equity financings, capital lease transactions or other financing sources 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 and commercialize ourselves. If sufficient capital is not available, we may be required to delay, reduce

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the scope of or eliminate one or more of our programs, any of which could have a material adverse effect on our business.

#### **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. Other pharmaceutical and biotechnology companies and research organizations currently engage in or have in the past engaged in efforts related to the biological mechanisms that are the focus of our programs in oncology and regenerative medicine, 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 product candidates 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. According to published reports as of July 2003, there were approximately 100 approved anti-cancer products on the market in the United States, and several hundred in clinical development. Many of the pharmaceutical companies developing and marketing these competing products (including AstraZeneca PLC, Bristol-Myers Squibb Company and Novartis AG, among others) have significantly greater financial resources and expertise than we do in:

- 4 research and development;
- 4 manufacturing;
- 4 preclinical and clinical testing;
- 4 obtaining regulatory approvals; and
- 4 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.

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

- 4 product efficacy and safety;
- 4 the timing and scope of regulatory consents;
- 4 availability of resources;
- 4 reimbursement coverage;
- 4 price; and
- 4 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 we do. Most significantly, competitive products may render any product candidates that we develop obsolete.

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#### **Restrictions on the use of human embryonic stem cells, and the ethical, legal and social implications of that research, could prevent us from developing or gaining acceptance for commercially viable products in these areas.**

Some of our most important programs involve the use of stem cells that are derived from human embryos. 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 political and religious groups have voiced opposition to our technology and practices. We use stem cells derived from human embryos. These embryos have been created for *in vitro* fertilization procedures but are no longer desired or suitable for that use and are donated with appropriate informed consent for research use. Many research institutions, including some of our scientific collaborators, have adopted policies regarding the ethical use of human embryonic tissue. These policies may have the effect of limiting the scope of research conducted using human embryonic stem cells, thereby impairing our ability to conduct research in this field.

In addition, the United States government and its agencies have until recently refused to fund research which involves the use of human embryonic tissue. President Bush announced on August 9, 2001 that he would permit federal funding of research on human embryonic stem cells using the limited number of embryonic stem cell lines that had already been created, but relatively few federal grants have been made so far. The President's Council on Bioethics will monitor stem cell research, and the guidelines and regulations it recommends may include restrictions on the scope of research using human embryonic or fetal tissue. The Council issued a report in July 2002 that recommended that the federal government undertake a thorough-going review of present and projected practices of human embryo research, with the aim of establishing appropriate institutions to advise and shape federal policy in this arena. In the United Kingdom and other countries, the use of embryonic or fetal tissue in research (including the derivation of human embryonic stem cells) is regulated by the government, whether or not the research involves government funding.

Government-imposed restrictions with respect to use of embryos or human embryonic stem cells in research and development could have a material adverse effect on us, by:

- 4 harming our ability to establish critical partnerships and collaborations;
- 4 delaying or preventing progress in our research and development; and
- 4 causing a decrease in the price of our stock.

#### **Potential restrictions or a ban on nuclear transfer could prevent us from benefiting financially from our research in this area.**

Our nuclear transfer technology could theoretically be used to produce human embryos for the derivation of embryonic stem cells ( therapeutic cloning ) or cloned humans ( reproductive cloning ). The U.S. Congress has recently considered legislation that would ban human therapeutic cloning as well as reproductive cloning. Such a bill was passed by the House of Representatives, although not by the Senate. The July 2002 report of the President's Council on Bioethics recommended a four-year moratorium on therapeutic cloning. If human therapeutic cloning is restricted or banned, we will not be able to benefit from the scientific knowledge that would be generated by research in that area. Finally, if regulatory bodies were to restrict or ban the sale of food products from cloned animals, our financial participation in the business of our nuclear transfer licensees could be significantly harmed.

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#### **We do not have experience as a company in the regulatory approval process, conducting large scale clinical trials, or other areas required for the successful commercialization and marketing of our product candidates.**

All of our product candidates are currently in early stages of product development. We will need to receive regulatory approval for any product candidates before they may be marketed and distributed. Such approval will require, among other things, completing carefully controlled and well-designed clinical trials demonstrating the safety and efficacy of such product candidate. This process is lengthy, expensive and uncertain. We currently have no experience as a company in conducting such trials. Such trials would require either additional financial and management resources, or reliance on third-party clinical investigators or clinical research organizations (CROs). Relying on third-party clinical investigators or CROs may force us to encounter delays that are outside of our control.

We also do not currently have marketing and distribution capabilities for our product candidates. Developing an internal sales and distribution capability would be an expensive and time-consuming process. We may enter into agreements with third parties that would be responsible for marketing and distribution. However, these third parties may not be capable of successfully selling any of our product candidates.

#### **Entry into clinical trials with one or more product candidates may not result in any commercially viable products.**

We may never generate revenues from product sales because of a variety of risks inherent in our business, including the following risks:

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

Our only product that is in clinical testing is the telomerase cancer vaccine, for which we have only early and preliminary results. Early stage testing may not be indicative of successful outcomes in later stage trials.

#### **Impairment of our intellectual property rights may limit our ability to pursue the development of our intended technologies and products.**

Protection of our proprietary 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. In particular, legal principles for biotechnology patents in the United States and in other countries are

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evolving, and the extent to which we will be able to obtain patent coverage to protect our technology, or enforce issued patents, is uncertain. For example, the European Patent Convention prohibits the granting of European patents for inventions that concern uses of human embryos for industrial or commercial purposes. We do not yet know whether or to what extent this restriction will impact our ability to obtain patent protection for our human embryonic stem cell technologies in Europe. Further, our patents may be challenged, invalidated or circumvented, and our 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.

Publication of discoveries in 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 the first to file patent applications for these inventions. As a result, we may not be able to obtain patents for discoveries that we otherwise would consider patentable and that we consider to be extremely significant to our future success.

Where several parties seek patent protection for the same technology, the U.S. Patent Office may declare an interference proceeding in order to ascertain the party to which the patent should be issued. Patent interferences are typically complex, highly contested legal proceedings, subject to appeal. They are usually expensive and prolonged, and can cause significant delay in the issuance of patents. Moreover, parties that receive an adverse decision in an interference can lose important patent rights. Our pending patent applications, or our issued patents, may be drawn into interference proceedings which may delay or prevent the issuance of patents, or result in the loss of issued patent rights.

The interference process can also be used to challenge a patent that has been issued to another party. In 2001, the U.S. Patent Office granted our request for the declaration of an interference between one of our pending applications relating to nuclear transfer and an issued patent, held by the University of Massachusetts. We requested this interference in order to clarify our patent rights in nuclear transfer technology. In March 2002, a second interference was declared involving our patent application and a patent application held by Infigen Inc. Both of these interferences are now ongoing. We do not have access to the other parties' invention records, and, as in any legal proceeding, the outcome is uncertain.

Outside of the United States, certain jurisdictions, such as Europe and Australia, permit oppositions to be filed against the granting of patents. Because our intent is to commercialize products internationally, securing both proprietary protection and freedom to operate outside of the United States is important to our business. We are involved in both opposing the grant of patents to others through such opposition proceedings and in defending against oppositions filed by others.

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

Patent litigation may also be necessary to enforce patents issued or licensed to us or to determine the scope and validity of our proprietary rights or the proprietary rights of others. We may not be successful in any patent litigation. Patent litigation can be extremely expensive and time-consuming, even if the outcome is favorable to us. An adverse outcome in a patent 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, any of which could severely harm our business.

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#### **If we fail to meet our obligations under license agreements, we may lose our rights to key technologies on which our business depends.**

Our business depends on our three technology platforms, each of which is based in part on patents licensed from third parties. Those third-party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial products under the licensed patents. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation our ability to carry out the development and commercialization of potential products could be significantly and negatively affected. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology platform would be severely adversely affected.

#### **We may be subject to litigation that will be costly to defend or pursue and uncertain in its outcome.**

Our business may bring us into conflict with our licensees, licensors, or others with whom we have contractual or other business relationships, or with our competitors or others whose interests differ from ours. If we are unable to resolve those conflicts on terms that are satisfactory to all parties, we may become involved in litigation brought by or against us. That litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant adverse effect on our business.

#### **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 the 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 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 those 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 failure to obtain alternative technologies or a license to any technology that we may require to develop or commercialize our product candidates would significantly and negatively affect our business.

#### **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 we believe patent protection is not appropriate or available. We attempt to protect our proprietary technology in part by confidentiality agreements with our employees, consultants, collaborators and contractors. We cannot assure you that these agreements will not be breached, that

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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.

#### **We depend on our collaborators to help us develop and test our product candidates, and our ability to develop and commercialize products may be impaired or delayed if collaborations are unsuccessful.**

Our strategy for the development, clinical testing and commercialization of our product candidates requires that we enter 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. For example, third parties are principally responsible for developing oncolytic virus therapeutics and diagnostics using our telomerase technology and an academic institution is conducting the clinical trial of the telomerase therapeutic cancer vaccine. 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 and development 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.

Under agreements with collaborators, we may rely significantly on them, among other activities, to:

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

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

#### **Our process of developing and testing our products depends in part on the intellectual property rights of our collaborators.**

Our development of telomerase therapeutic vaccines and oncolytic viruses is partly dependent on the intellectual property of our collaborators. For example, Merix Biosciences holds the rights for the *ex vivo* dendritic cell technology used in our telomerase cancer vaccine trial, while we own the rights to the telomerase antigen and its use in therapeutic vaccines. If we were no longer able to use the Merix technology, we would need to develop or obtain rights to use a different *ex vivo* cell preparation technology and restart the trial using that different technology, or abandon entirely the development of an *ex vivo* telomerase vaccine, which would significantly and adversely affect our business.

#### **Our reliance on the research activities of our non-employee scientific consultants, research institutions, and scientific contractors, whose activities are not wholly within our control, may lead to delays in technological developments.**

We rely extensively and have relationships with scientific consultants at academic and other institutions, some of whom conduct research at our request. These scientific consultants are not our employees and may have commitments to, or consulting or advisory contracts with, other entities that

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may limit their availability to us. We have limited control over the activities of these consultants 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.

In addition, we have formed research collaborations with many academic and other research institutions throughout the world. 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.

We also rely on other companies for certain process development or other technical scientific work, especially with respect to our telomerase inhibitor programs. We have contracts with these companies that specify the work to be done and results to be achieved, but we do not have direct control over their personnel or operations.

If any of these third parties are unable or refuse to contribute to projects on which we need their help, our ability to generate advances in our technologies will be significantly harmed.

#### **The loss of key personnel could slow our ability to conduct research and develop product candidates.**

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 who assist us in formulating our research and development and clinical 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 commercially 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 our business.

#### **Because we or our collaborators must obtain regulatory approval to market our products in the United States and other countries, 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

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trials of the products that we or our collaborators develop are subject to extensive government regulation that may prevent us from creating commercially viable product candidates 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:

4 manufacturing;

4 advertising and promoting;

4 selling and marketing;

4 labeling; and

4 distributing.

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 before it may be marketed in the United States or other countries. Biological drugs and non-biological drugs are rigorously regulated. In particular, human pharmaceutical therapeutic products 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 other countries in order to demonstrate safety and efficacy. Because certain of our product candidates involve the application of new technologies or are based upon a new therapeutic approach, such products may be subject to substantial additional review by various government regulatory authorities, and, as a result, the process of obtaining regulatory approvals for such products may proceed more slowly than for products based upon more conventional technologies. We may never obtain regulatory approval to market our product candidates.

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 as a result of 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:

4 significantly harm the marketing of any products that we or our collaborators develop;

4 impose costly procedures upon our activities or the activities of our collaborators;

4 diminish any competitive advantages that we or our collaborators may attain; or

4 adversely affect our ability to receive royalties and generate revenues and profits.

Even if we commit the necessary time and resources, the required regulatory agency approvals or clearances may not be obtained for any product candidates developed by or in collaboration with us. If we obtain regulatory agency approval or clearance for a new product, this approval or clearance may entail limitations on the indicated uses for which it can 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:

4 recall or seizure of products;

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4 injunction against manufacture, distribution, sales and marketing; and

4 criminal prosecution.

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

#### **To be successful, our product candidates must be accepted by the health care community, which can be very slow to adopt or unreceptive to new technologies and products.**

Our product candidates and those developed by our collaborative partners, if approved for marketing, may not achieve market acceptance since hospitals, 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 represent substantial departures from established treatment methods and will compete with a number of more conventional 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:

4 our establishment and demonstration to the medical community of the clinical efficacy and safety of our product candidates;

4 our ability to create products that are superior to alternatives currently on the market;

4 our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and

4 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.

#### **If we fail to obtain acceptable prices or adequate reimbursement for our product candidates, the use of our potential products could be severely limited.**

Our ability to successfully commercialize our product candidates will depend significantly on our ability to obtain acceptable prices and the availability of reimbursement to the patient from third-party payors. Significant uncertainty exists as to the reimbursement status of newly-approved health care products, including pharmaceuticals. If our products are not considered cost-effective or 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 U.S. and other markets, sales of our potential products, if any, will depend in part on the availability of reimbursement from third-party payors, examples of which include:

4 government health administration authorities;

4 private health insurers;

4 health maintenance organizations; and

4 pharmacy benefit management companies.

Both federal and state governments in the United States and governments in other countries continue to propose and pass legislation designed to contain or reduce the cost of health care. Legislation and regulations affecting the pricing of pharmaceuticals and other medical products may be adopted before

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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 may ultimately not be considered cost-effective by these third parties. Any of these initiatives or developments could materially harm our business.

#### **Our products are likely to be expensive to manufacture, and they may not be profitable if we are unable to significantly reduce the costs to manufacture them.**

Both our telomerase inhibitor compounds, GRN163 and GRN163L, and our hESC-based products are likely to be significantly more expensive to manufacture than most other drugs currently on the market today. Oligonucleotides are relatively large molecules with complex chemistry, and the cost of manufacturing even a short oligonucleotide like GRN163 or GRN163L is considerably greater than the cost of making most small-molecule drugs. Our present manufacturing processes are conducted at a relatively small scale and are at an early stage of development. We hope to substantially reduce manufacturing costs by process improvements, as well as through scale increases. If we are not able to do so, however, and depending on the pricing of the product, the profit margin on the telomerase inhibitor may be significantly less than that of most drugs on the market today. Similarly, we currently make differentiated cells from hESCs on a laboratory scale, at a high cost per unit of measure. The cell-based therapies we are developing based on hESCs will probably require large quantities of cells. We continue to develop processes to scale up production of the cells in a cost-effective way. We may not be able to charge a high enough price for any cell therapy product we develop, even if they are safe and effective, to make a profit. If we are unable to realize significant profits from our potential products, our business would be materially harmed.

#### **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, or to adequately restrict the discharge, 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. Any such 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 these laws and regulations and substantial fines or penalties if we violate any of these laws or regulations.

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**RISKS RELATED TO THE OFFERING**

**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 factors which may be unrelated to their businesses or results of operations such as media coverage, legislative and regulatory measures and the activities of various interest 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 the return on your investment.

Historically, our stock price has been extremely volatile. Between January 1998 and September 30, 2003, our stock has traded as high as \$75.88 per share and as low as \$1.41 per share. Between October 1, 2002 and September 30, 2003, the price has ranged between a high of \$16.07 per share and a low of \$1.41 per share. The significant market price fluctuations of our common stock are due to a variety of factors, including:

- 4 the depth of the market for the common stock;
- 4 the experimental nature of our potential products;
- 4 fluctuations in our operating results;
- 4 market conditions relating to the biopharmaceutical and pharmaceutical industries;
- 4 any announcements of technological innovations, new commercial products, or clinical progress or lack thereof by us, our collaborative partners or our competitors;
- 4 announcements concerning regulatory developments, developments with respect to proprietary rights and our collaborations;
- 4 comments by securities analysts;
- 4 general market conditions; or
- 4 public concern with respect to our products.

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, which 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 may adversely affect the market price for our common stock.**

Sales of substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could significantly and negatively affect the market price for our common stock. As of September 30, 2003, we had 33,349,939 shares of common stock outstanding. Of these shares, approximately 19,651,147 shares (including shares issuable upon conversion or exercise of convertible notes or warrants) were issued since December 1998 pursuant to private placements. Of these shares, approximately 15,174,543 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 4,476,604 of the remaining shares may be resold pursuant to Rule 144 into the public markets. See Description of common stock in the accompany prospectus.

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### **Risk factors**

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#### **Our undesignated preferred stock may inhibit potential acquisition bids; this may adversely affect the market price for 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 prospectus supplement, 50,000 shares of preferred stock have been designated Series A Junior Participating Preferred Stock and the Board of Directors still has authority to designate and issue up to 2,950,000 shares of preferred stock. 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.

In addition, if we issue preferred stock in the future that has preference over our common stock with respect to the payment of dividends or upon our liquidation, dissolution or winding up, or if we issue preferred stock with voting rights that dilute the voting power of our common stock, the rights of holders of our common stock or the market price of our common stock could be adversely affected.

#### **Provisions in our share purchase rights plan, 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 believe may be the positive aspects of acquisitions and takeovers.**

Our Board of Directors has adopted a share purchase rights plan, commonly referred to as a poison pill. This plan entitles existing stockholders to rights, including the right to purchase shares of common stock, in the event of an acquisition of 15% or more of our outstanding common stock. Our share purchase rights plan could prevent stockholders from profiting from an increase in the market value of their shares as a result of a change of control of Geron by delaying or preventing a change of control. In addition, our Board of Directors has the authority, without further action by our stockholders, to issue additional shares of common stock, and to fix the rights and preferences of one or more series of preferred stock.

In addition to our share purchase rights plan and 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:

- 4 prevent stockholders from taking actions by written consent;
- 4 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;
- 4 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.

In addition, we have severance agreements with several employees and a change of control severance plan which could require an acquiror to pay a higher price.

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**Risk factors**

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**Management may invest or spend the proceeds of this offering in ways with which you may not agree and in ways that may not yield a return to our stockholders.**

Management will retain broad discretion over the use of proceeds from this offering. Stockholders may not deem such uses desirable, and our use of the proceeds may not yield a significant return or any return at all for our stockholders. Management intends to use the proceeds from this offering primarily to fund clinical trials of our lead product candidates and for other research and development and other general corporate purposes. Because of the number and variability of factors that determine our use of the proceeds from this offering, our actual uses of the proceeds of this offering may vary substantially from our currently planned uses. We intend to invest the net proceeds from this offering in short term, interest-bearing investment grade securities until we are ready to use them.

**New investors in our common stock will experience immediate and substantial dilution.**

The offering price of our common stock will be substantially higher than the net tangible book value per share of our existing capital stock. As a result, purchasers of our common stock in this offering will incur immediate and substantial dilution of \$11.42 in net tangible book value per share of common stock, based on an assumed public offering price of \$14.41 per share. Those purchasers will experience additional dilution upon the exercise of outstanding stock options and warrants. See **Dilution** on page S-28 for a more detailed discussion of the dilution new investors will incur in this offering.

**We do not intend to pay cash dividends on our common stock in the foreseeable future.**

We do not anticipate paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends will depend upon our financial condition, results of operations, capital requirements and other factors and will be at the discretion of the Board of Directors. Furthermore, we may incur additional indebtedness that may severely restrict or prohibit the payment of dividends.

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## Forward-looking statements

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference in the accompanying prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. We have based these forward-looking statements on our current expectations and projections about future events. Our actual results could differ materially from those discussed in, or implied by, these forward-looking statements. These forward-looking statements are generally identified by words such as believe, anticipate, estimate, expect, intend, plan, will, may and similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. Forward-looking statements include, but are not necessarily limited to, those relating to:

- 4 future product research and development activities, including clinical trials, and status of product development;
- 4 size and timing of expenditures and whether there are unanticipated expenditures;
- 4 plans for regulatory filings;
- 4 receipt of future regulatory approvals or clearances;
- 4 implementation of our corporate strategy; and
- 4 future financial performance.

Factors that could cause actual results or conditions to differ from those anticipated by these and other forward-looking statements include those more fully described in the Risk Factors section of this prospectus supplement and accompanying prospectus and elsewhere in this prospectus supplement and in the accompanying prospectus. We undertake no obligation to update or revise these forward-looking statements to reflect events or circumstances after the date of this prospectus supplement except as required by law.

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## Use of proceeds

We estimate that the net proceeds we will receive from the sale of shares of our common stock in this offering will be approximately \$67.2 million (\$77.4 million if the underwriters' over-allotment option is exercised in full), assuming a public offering price of \$14.41, after deducting the underwriting discount and commissions and estimated offering expenses. We will retain broad discretion over the use of the net proceeds from the sale of our common stock offered hereby. We currently intend using the net proceeds from the sale of our common stock in this offering primarily for:

4 research and development, including clinical trials for our product candidates; and

4 working capital and other general corporate purposes.

The amounts and timing of the expenditures may vary significantly depending on numerous factors, such as the progress of our research and development efforts, technological advances and the competitive environment for our products. We may also use a portion of the net proceeds to acquire or invest in complementary businesses, products and technologies. Although we currently have no material agreements or commitments with respect to acquisitions, we evaluate acquisition opportunities and engage in related discussions from time to time.

We intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities until we are ready to use them.

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**Table of Contents****Capitalization**

The following table sets forth our unaudited cash, cash equivalents, restricted cash, and marketable securities and capitalization as of June 30, 2003 and is derived from our unaudited consolidated financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus:

4 on an actual basis; and

4 on an as adjusted basis to reflect the receipt of the estimated net proceeds from the sale of common shares in this offering (assuming a public offering price of \$14.41 per share), as if such offering had been consummated on June 30, 2003.

This table should be read in conjunction with Management's discussion and analysis of financial condition and results of operations and our consolidated financial statements and the related notes incorporated by reference in this prospectus supplement and the accompanying prospectus.

	<b>As of June 30, 2003</b>	
	<b>Actual</b>	<b>As adjusted</b>
<b>(In thousands, except per share data)</b>		
Cash, cash equivalents, restricted cash and marketable securities	\$ 53,816	\$ 121,043
<b>Total liabilities</b>	<b>\$ 11,517</b>	<b>\$ 11,517</b>
<b>Stockholders' equity:</b>		
Common stock, par value \$0.001 per share, 100,000,000 shares authorized, 33,125,988 shares issued and outstanding, actual and 38,125,988 shares issued and outstanding, as adjusted	33	38
Additional paid-in-capital	295,739	362,961
Deferred compensation	(151)	(151)
Accumulated deficit	(243,003)	(243,003)
Accumulated other comprehensive loss	(475)	(475)
<b>Total stockholders' equity</b>	<b>52,143</b>	<b>119,370</b>
<b>Total capitalization</b>	<b>\$ 63,660</b>	<b>\$ 130,887</b>

The number of shares of our common stock in the actual and adjusted columns in the table above does not include the following securities outstanding as of June 30, 2003:

4 6,507,510 shares of our common stock issuable upon exercise of outstanding options issued under our stock option plans at a weighted average exercise price of \$9.23 per share; and

4 2,108,919 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average exercise price of \$13.15 per share.

This table and the statement of shares outstanding on The offering on page S-7 do not include (1) warrants to purchase 600,000 shares of common stock that we issued to two investors on October 14, 2003 or (2) warrants to purchase 500,000 shares of our common stock that are not outstanding but that may be issued to a consultant for assistance in structuring and consummating a potential collaborative partnership for development of certain of our technology, in the event such a collaborative partnership is consummated on terms satisfactory to us. Any charge with respect to these warrants would be recognized in the period in which these warrants were granted.



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**Dilution**

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the net tangible book value per share of our common stock after this offering.

Our net tangible book value as of June 30, 2003 was \$46.9 million or approximately \$1.42 per share. Net tangible book value is total assets minus the sum of liabilities and intangible assets. Net tangible book value per share is net tangible book value divided by the total number of shares of common stock outstanding.

Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after completion of this offering. After giving effect to the sale of 5,000,000 shares of our common stock in this offering (assuming a public offering price of \$14.41 per share), and deducting the underwriting discounts and our estimated offering expenses, our net tangible book value as of June 30, 2003 would have been \$2.99 per share if this offering had been consummated on June 30, 2003. This amount represents an immediate increase in net tangible book value of \$1.57 per share to existing stockholders and an immediate dilution in net tangible book value of \$11.42 per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed public offering price per share		\$14.41
Net tangible book value per share as of June 30, 2003	\$1.42	
Increase in net tangible book value per share attributable to this offering	1.57	
		<hr/>
Pro forma net tangible book value per share as of June 30, 2003 after giving effect to this offering		2.99
		<hr/>
Dilution per share to new investors in this offering		\$11.42
		<hr/>

The table above assumes no exercise of the underwriters' over-allotment option or of the following securities outstanding as of June 30, 2003:

4 options to purchase 6,507,510 shares of our common stock under our stock option plans at a weighted average exercise price of \$9.23 per share; and

4 warrants to purchase 2,108,919 shares of our common stock at a weighted average exercise price of \$13.15 per share.

It also does not include (1) warrants for the purchase of 600,000 shares of common stock that we issued to two investors on October 14, 2003 or (2) warrants to purchase 500,000 shares of our common stock that are not outstanding but that may be issued to a consultant for assistance in structuring and consummating a potential collaborative partnership for development of certain of our technology, in the event such a collaborative partnership is consummated on terms satisfactory to us. Any charge with respect to these warrants would be recognized in the period in which these warrants were granted.

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**Price range of common stock**

Our common stock trades on the Nasdaq National Market under the symbol GERN. The following table sets forth, for the periods indicated, the high and low reported sales prices of our common stock as reported on the Nasdaq National Market:

	<b>High</b>	<b>Low</b>
<b>Year ended December 31, 2001</b>		
First quarter	\$20.750	\$9.125
Second quarter	16.400	9.250
Third quarter	18.600	8.880
Fourth quarter	14.480	8.010
<b>Year ended December 31, 2002</b>		
First quarter	\$ 10.490	\$ 7.020
Second quarter	8.450	4.160
Third quarter	5.580	3.550
Fourth quarter	4.430	3.330
<b>Year ended December 31, 2003</b>		
First quarter	\$ 5.670	\$ 1.410
Second quarter	9.750	3.840
Third quarter	16.070	6.500
Fourth quarter (through October 13, 2003)	14.750	12.720

As of September 30, 2003, there were 914 holders of record of our common stock. As of October 13, 2003, the last sale price reported on the Nasdaq National Market for our common stock was \$14.41 per share.

**Dividend policy**

We have never paid cash dividends on our capital stock and do not anticipate paying cash dividends in the foreseeable future, but intend 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 our financial condition, results of operations, capital requirements and other such factors as the Board of Directors deems relevant.

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**Underwriting**

We and the underwriters for this offering named below have entered into an underwriting agreement concerning the common stock being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. UBS Securities LLC, SG Cowen Securities Corporation, Lazard Frères & Co. LLC and Needham & Company, Inc. are acting as the representatives of the underwriters. UBS Securities LLC is the sole book-running manager of this offering.

<b>Underwriters</b>	<b>Number of shares</b>
UBS Securities LLC	
SG Cowen Securities Corporation	
Lazard Frères & Co. LLC	
Needham & Company, Inc.	
Total	5,000,000

If the underwriters sell more shares than the total number set forth in the table above, the underwriters have a 30-day option to buy up to an additional 750,000 shares from us at the public offering price, less the underwriting discounts and commissions, to cover these sales. If any shares are purchased under this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions we will pay to the underwriters. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase from us up to an additional 750,000 shares.

	<b>No exercise</b>	<b>Full exercise</b>
Per share	\$	\$
Total	\$	\$

We estimate that the total expenses of the offering payable by us, excluding underwriting discounts and commissions, will be approximately \$500,000.

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to \$ \_\_\_\_\_ per share from the public offering price. Any of these securities dealers may resell any shares purchased from the underwriters to other brokers or dealers at a discount of up to \$ \_\_\_\_\_ per share from the public offering price. If all the shares are not sold at the public offering price, the representatives of the underwriters may change the offering price and the other selling terms.

We and each of our directors and executive officers have agreed with the underwriters not to offer, sell, contract to sell, hedge or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act of 1933, as amended, relating to any of our common stock or securities convertible into or exercisable or exchangeable for shares of common stock during the period from the date of this prospectus supplement continuing through the date 90 days after the date of this prospectus supplement, subject to certain permitted exceptions, without the prior written consent of UBS Securities LLC.

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses electronically.

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**Underwriting**

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In connection with this offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include stabilizing transactions, short sales and purchases to cover positions created by short sales. Stabilizing transactions consist of bids or purchases made for the purpose of preventing or retarding a decline in the market price of our common stock while this offering is in progress. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. Short sales may be either covered short sales or naked short sales. Covered short sales are sales made in an amount not greater than the underwriters over-allotment option to purchase additional shares in this offering. The underwriters may close out any covered short position by either exercising their over-allotment option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Naked short sales are sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned there may be downward pressure on the price of shares in the open market after pricing that could adversely affect investors who purchase in this offering.

The underwriters also may impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

These activities by the underwriters may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, the underwriters may discontinue them at any time. These transactions may be effected on the Nasdaq National Market or otherwise.

In addition, in connection with this offering, certain of the underwriters (and selling group members) may engage in passive market making transactions in the common stock on the Nasdaq National Market prior to the pricing and completion of the offering. Passive market making consists of displaying bids on the Nasdaq National Market no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued when such limit is reached. Passive market making may cause the price of the common stock to be higher than the price that otherwise would exist in the open market in the absence of such transactions. If passive market making is commenced, it may be discontinued at any time.

We have agreed to indemnify the several underwriters against some liabilities, including liabilities under the Securities Act of 1933, as amended, and to contribute to payments that the underwriters may be required to make in respect thereof.

Certain of the underwriters have in the past provided and may in the future provide financial advisory services to us. For these services, we have paid them, or will pay them, customary compensation.

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## Legal matters

The validity of the common stock offered hereby will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Dewey Ballantine LLP, New York, New York, is counsel for the underwriters in connection with this offering.

## Experts

The consolidated financial statements of Geron Corporation appearing in our Annual Report on Form 10-K for the year ended December 31, 2002 have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

## Where you can find more information

We are subject to the informational requirements of the Securities Exchange Act of 1934, as amended, and in accordance therewith file reports, proxy statements and other information with the Securities and Exchange Commission. Our filings are available to the public over the Internet at the Securities and Exchange Commission's website at <http://www.sec.gov>. You may also read and copy, at prescribed rates, any document we file with the Securities and Exchange Commission at the Public Reference Room of the Securities and Exchange Commission located at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the Securities and Exchange Commission at (800) SEC-0330 for further information on the Securities and Exchange Commission's Public Reference Room.

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## Incorporation of certain information by reference

The SEC allows us to incorporate by reference the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus supplement. We incorporate by reference the following documents filed by us with the SEC under the Securities Exchange Act of 1934:

- 4 Our annual report on Form 10-K for the fiscal year ended December 31, 2002;
- 4 Our definitive proxy statement filed pursuant to Section 14 of the Exchange Act in connection with our 2003 Annual Meeting of Stockholders dated April 13, 2003;
- 4 Our current reports on Form 8-K filed January 22, 2003, April 7, 2003, April 8, 2003, April 9, 2003, May 27, 2003, June 4, 2003, July 1, 2003, and September 3, 2003; and
- 4 Our quarterly reports on Form 10-Q for the quarters ended March 31, 2003 and June 30, 2003.

All documents we file under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and before all of the common stock offered by this prospectus supplement have been sold are deemed to be incorporated by reference in this prospectus supplement and to be a part of it from the respective dates of filing those documents. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein modifies or supersedes that statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to David L. Greenwood, Chief Financial Officer, Geron Corporation, 230 Constitution Drive, Menlo Park, California 94025, telephone: (650) 473-7700.

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PROSPECTUS

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\$150,000,000

**Debt Securities, Common Stock,  
Preferred Stock and Warrants**

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We may from time to time offer in one or more series or classes:

debt securities,

shares of our common stock,

shares of our preferred stock, and

warrants to purchase debt securities, common stock or preferred stock.

The securities will have a maximum aggregate public offering price of \$150,000,000 (or its equivalent in another currency based on the exchange rate at the time of sale). The securities may be offered, separately or together, in separate series, in amounts, at prices and on terms to be set forth in one or more supplements to this prospectus.

The securities may be offered directly, through agents or through underwriters or dealers. If any agents or underwriters are involved in the sale of any of the securities, their names, and any applicable purchase price, fee, commission or discount arrangement between or among them, will be set forth in the accompanying prospectus supplement. No securities may be sold under this prospectus without delivery of the applicable prospectus supplement.

Our common stock is traded on the Nasdaq National Market under the symbol GERN. On January 28, 2002, the closing price of our common stock was \$9.33.

**Investing in our common stock involves a high degree of risk. See Risk factors beginning on page 2 for a discussion of material risks that you should consider before you invest in our securities being sold with this prospectus.**

**Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of the prospectus. Any representation to the contrary is a criminal offense.**

The date of this prospectus is February 14, 2002.

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## About this prospectus

This prospectus is a part of a registration statement that we filed with the Securities and Exchange Commission utilizing a shelf registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$150,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities as described in this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement together with additional information described under the next heading **Where you can find more information.**

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## About Geron

We are a biopharmaceutical company focused on 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. Please see the applicable prospectus supplement and our recent public filings for recent developments.

We were incorporated in 1990 under the laws of Delaware. Our principal executive offices are located at 230 Constitution Drive, Menlo Park, California 94025 and our telephone number is (650) 473-7700. References in this prospectus to we, us, our, and Geron refer to Geron Corporation and its subsidiaries.

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**Risk factors**

*Before you decide whether to purchase any of our securities, in addition to the other information in this prospectus, you should carefully consider the following risk factors as well as the risk factors set forth under the heading Risk factors in the section entitled Item 1 Business in our most recent Annual Report on Form 10-K, which is incorporated by reference into this prospectus, as the same may be updated from time to time by our future filings under the Securities Exchange Act. For more information, see the section entitled Where you can find more information.*

**Our business is at an early stage of development.**

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. Our ability to produce products that progress to and through clinical trials is subject to our ability to, among other things:

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

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 September 30, 2001, our accumulated deficit was approximately \$172.4 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 right to telomerase inhibitors from Pharmacia and we will not receive future payments from Pharmacia. Kyowa Hakko provided additional research funding in 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 telomerase-immortalized cell lines, and do not currently expect to receive significant revenues from the sale of these products. 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.

## **Table of Contents**

### **Risk factors**

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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, interest income and equipment financing arrangements will be sufficient to fund our current level of operations through at least December 31, 2002, we cannot guarantee that this will be the case. The timing and degree of any future capital requirements will depend on many factors, including:

- 4 the accuracy of the assumptions underlying our estimates for our capital needs in 2002 and beyond;
- 4 continued scientific progress in our research and development programs;
- 4 the magnitude and scope of our research and development programs;
- 4 our ability to maintain and establish strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- 4 our progress with preclinical and clinical trials;
- 4 the time and costs involved in obtaining regulatory approvals;
- 4 the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims; and
- 4 the potential for new technologies and products.

We intend to acquire additional funding through strategic collaborations, public or private equity financings, capital lease transactions or other financing sources that may be available. 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 and 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.

**We may be unable to identify a safe and effective inhibitor of telomerase which 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. Kyowa Hakko has selected one of these compounds, GRN 163, as a lead compound for preclinical development as a telomerase inhibitor for cancer. Further research is required to determine if this compound can be fully developed as an efficacious, safe and commercially viable treatment for cancer.

This compound, and other compounds we have identified, may prove to have undesirable and unintended side effects or other characteristics adversely affecting its safety or efficacy that would likely prevent or limit its commercial use. Accordingly, it may not be appropriate for us to proceed with clinical development, to obtain regulatory approval or to market a telomerase inhibitor for the

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**Risk factors**

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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:

- 4 research and development;
- 4 manufacturing;
- 4 preclinical and clinical testing;
- 4 obtaining regulatory approvals; and
- 4 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.

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

- 4 product efficacy and safety;
- 4 the timing and scope of regulatory consents;
- 4 availability of resources;
- 4 reimbursement coverage;
- 4 price; and
- 4 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 we do. 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 debate in social and political arenas. We use human embryonic stem cells derived through a process that uses either donated embryos that are no longer necessary 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 have in recent years refused to fund research which involves the use of human embryonic tissue. President Bush, however, announced on August 9, 2001 that he would permit federal funding of research on human embryonic stem cells using the limited number of embryonic stem cell lines that had already been created. A newly created president's council will monitor stem cell research, and the guidelines and regulations it recommends may include restrictions on the scope of research using 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. Geron acquired exclusive rights to this technology for all areas except human reproductive cloning and certain other limited applications. Although we will not be pursuing human reproductive cloning, we continue to develop techniques for use in agricultural cloning and for possible application in human regenerative medicine. Government imposed restrictions with respect to any or all of these practices could:

- 4 harm our ability to establish critical partnerships and collaborations;
- 4 prompt government regulation of our technologies;



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4 cause delays in our research and development; and

4 cause a decrease in the price of our stock.

If human therapeutic cloning is restricted or banned (as it would be under bill H.R. 2505 recently passed by the U.S. House of Representatives), our ability to commercialize those applications could be significantly harmed. 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.

**Entry into clinical trials with one or more products may not result in any commercially 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:

4 clinical trials may not demonstrate the safety and efficacy of our products;

4 completion of clinical trials may be delayed, or costs of clinical trials may exceed anticipated amounts;

4 we may not be able to obtain regulatory approval of our products, or may experience delays in obtaining such approvals;

4 we may not be able to manufacture our drugs economically on a commercial scale;

4 we and our licensees may not be able to successfully market our products;

4 physicians may not prescribe our products, or patients may not accept such products;

4 others may have proprietary rights which prevent us from marketing our products; and

4 competitors may sell similar, superior or lower-cost products.

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### **Risk factors**

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#### **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. 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 in the United States 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 extremely 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.

#### **If we fail to meet our obligations under license agreements, we may face loss of our rights to key technologies on which our business depends.**

Our business depends on our three core technologies, each of which is based in part on patents licensed from third parties. Those third-party license agreements impose obligations on us, such as payment obligations and obligations to diligently pursue development of commercial products under the licensed patents. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which would most likely lead to costly and time-consuming litigation. During the period of any such litigation our ability to carry out the development and commercialization of potential products could be significantly and negatively affected. If our license rights were ultimately lost, our ability to carry on our business based on the affected technology platform would be severely affected.

#### **We may be subject to litigation that will be costly to defend or pursue and uncertain in its outcome.**

Our business may bring us into conflict with our licensees, licensors, or others with whom we have contractual or other business relationships, or with our competitors or others whose interests differ from ours. If we are unable to resolve those conflicts on terms that are satisfactory to all parties, we

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may become involved in litigation brought by or against us. That litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant effect on our business.

#### **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 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 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.

#### **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 contractors. 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.

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**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 a telomerase inhibitor in Asia 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:

- 4 design and conduct advanced clinical trials in the event that we reach clinical trials;
- 4 fund research and development activities with us;
- 4 pay us fees upon the achievement of milestones; and
- 4 market 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 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.

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#### **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 commercially 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 extensive 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:

- 4 manufacturing;
- 4 advertising and promoting;
- 4 selling and marketing;
- 4 labeling; and
- 4 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

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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 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 as a result of 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:

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

Even if we commit the necessary time and resources, 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:

- 4 recall or seizure of products;
- 4 injunction against manufacture, distribution, sales and marketing; and
- 4 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

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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:

- 4 our establishment and demonstration to the medical community of the clinical efficacy and safety of our product candidates;
- 4 our ability to create products that are superior to alternatives currently on the market;
- 4 our ability to establish in the medical community the potential advantage of our treatments over alternative treatment methods; and
- 4 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:

- 4 government health administration authorities;
- 4 private health insurers;
- 4 health maintenance organizations; and
- 4 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.

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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 interest 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 the return on your investment.

Historically, our stock price has been extremely volatile. Between January 1998 and December 31, 2001, 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:

- 4 depth of the market for the common stock;
- 4 the experimental nature of our prospective products;
- 4 fluctuations in our operating results;
- 4 market conditions relating to the biopharmaceutical and pharmaceutical industries;
- 4 any announcements of technological innovations, new commercial products or clinical progress or lack thereof by us, our collaborative partners or our competitors; or
- 4 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, which then 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, 2001, we had

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### **Risk factors**

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approximately 24,481,774 shares of common stock outstanding. Of these shares, approximately 10,534,534 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 9,623,463 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 906,071 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 for 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 S-3, the Board of Directors still has authority to designate and issue up to 2,950,000 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 share purchase rights plan, 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 believe may be the positive aspects of acquisitions and takeovers.**

Our Board of Directors has adopted a share purchase rights plan, commonly referred to as a "poison pill". This plan entitles existing stockholders to rights, including the right to purchase shares of common stock, in the event of an acquisition of 15% or more of our outstanding common stock. Our share purchase rights plan could prevent stockholders from profiting from an increase in the market value of their shares as a result of a change of control of Geron by delaying or preventing a change of control. In addition, our Board of Directors has the authority, without further action by our stockholders, to issue additional shares of common stock, to fix the rights and preferences of, and to issue authorized but undesignated shares of preferred stock.

In addition to our share purchase rights plan and 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:

- 4 prevent stockholders from taking actions by written consent;
- 4 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
- 4 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.

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## Forward-looking statements

This prospectus and the documents incorporated by reference into this prospectus contain forward-looking statements that are based on current expectations, estimates and projections about our industry, management's beliefs, and assumptions made by management. Words such as anticipates, expects, intends, plans, believes, seeks, estimates, and variations of such words and similar expressions are intended to identify forward-looking statements. These statements are not guarantees of future performance and are subject to certain risks, uncertainties and assumptions that are difficult to predict; therefore, actual results may differ materially from those expressed or forecasted in any forward-looking statements. The risks and uncertainties include those noted in Risk factors above and in the documents incorporated by reference. We undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

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The following table sets forth ratios of earnings to fixed charges for the periods shown.

Nine months ended September 30, 2001	Year ended December 31,				
	2000	1999	1998	1997	1996
N/A(2)	N/A(2)	N/A(2)	N/A(2)	N/A(2)	N/A(2)

The following table sets forth ratios of earnings to fixed charges and preferred dividend for the periods shown.

Nine months ended September 30, 2001	Year ended December 31,				
	2000	1999	1998	1997	1996
N/A(3)	N/A(3)	N/A(3)	N/A(3)	N/A(3)	N/A(3)

(1) *The ratio of earnings to fixed charges was computed by dividing earnings by fixed charges. For this purpose, earnings consist of net loss before fixed charges. Fixed charges consist of interest expense on outstanding lease liabilities, interest accrual for outstanding convertible debentures, the amortization of issuance costs on convertible debentures, and the interest expense related to the value of warrants issued with convertible debentures.*

*The ratio of earnings to fixed charges and preferred dividends was calculated in a similar manner to the ratio of earnings to fixed charges, except that the accretion of premium on outstanding redeemable preferred stock is included in the fixed charges for the years ended December 31, 1998 and 1997. No preferred stock dividends were paid in the other periods.*

(2) *Earnings have been inadequate to cover fixed charges. The dollar amount of the coverage deficiency was approximately \$22.6 million for the nine months ended September 30, 2001 and \$45.8 million, \$46.4 million, \$10.8 million, \$9.6 million and \$10.7 million for the years ended December 31, 2000, 1999, 1998, 1997 and 1996.*

(3) *Earnings have been inadequate to cover fixed charges and preferred dividends. The dollar amount of the coverage deficiency was approximately \$22.6 million for the nine months ended September 30, 2001 and \$45.8 million, \$46.5 million, \$11.4 million, \$9.6 million and \$10.7 million for the years ended December 31, 2000, 1999, 1998, 1997 and 1996.*

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Use of proceeds

Except as otherwise provided in the applicable prospectus supplement, we will use the net proceeds from the sale of the securities for general corporate purposes, which may include funding research and development, increasing our working capital, reducing indebtedness, acquisitions or investments in businesses, products or technologies that are complementary to our own, and capital expenditures. Pending the application of the net proceeds, we expect to invest the proceeds in investment-grade, interest-bearing securities.

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## Plan of distribution

We may sell the securities being offered by this prospectus directly to our stockholders, directly to one or more purchasers, through agents, to or through one or more dealers, to or through underwriters or through a combination of any of these methods of sale.

We may distribute the securities from time to time in one or more transactions:

- 4 at a fixed price or prices, which may be changed;
- 4 at market prices prevailing at the time of sale;
- 4 at prices related to such prevailing market prices; or
- 4 at negotiated prices.

We may solicit directly offers to purchase the securities being offered by this prospectus. We may also designate agents to solicit offers to purchase the securities from time to time. We will name any agent, who may be deemed to be our underwriter as that term is defined in the Securities Act, involved in the offer or sale of our securities in a prospectus supplement. We will also describe any commissions payable by us to any agent in the applicable prospectus supplement.

If we use a dealer in the sale of the securities, we will sell the securities to the dealer as principal. The dealer, who may be deemed to be an underwriter as that term is defined in the Securities Act, may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we use an underwriter or underwriters in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriters at the time of sale to them and we will provide the names of the underwriters in the prospectus supplement which the underwriters will use to make resales of the securities to the public. In connection with the sale of the securities, we, or the purchasers of securities for whom the underwriters may act as agents; may compensate the underwriters in the form of underwriting discounts or commissions. Underwriters may also sell the securities to or through dealers, and the underwriters may compensate those dealers in the form of discounts, concessions or commissions. We will describe in the applicable prospectus supplement any underwriting compensation we pay to underwriters in connection with the offering of securities by this prospectus, and any discounts, concessions or commission allowed by underwriters to participating dealers.

We may authorize underwriters, dealers or other persons to solicit offers by institutions to purchase the securities offered by this prospectus pursuant to contracts providing for payment and delivery on a future date or dates. If we do so, we will provide the details of the arrangements in a prospectus supplement. We may make these contracts with commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and others. The obligations of any purchasers under these contracts will not be subject to any conditions except that (a) the purchase of the securities shall not at the time of delivery be prohibited under the laws of the jurisdiction to which the purchaser is subject and (b) if the securities are also being sold to underwriters, we shall have sold to the underwriters the securities offered by this prospectus which are not sold for delayed delivery. The underwriters, dealers and other persons will not have any responsibility in respect of the validity or performance of the contracts. We will describe in the prospectus supplement the price to be paid for securities under the contracts, the commission payable for solicitation of contracts and the date or dates in the future for delivery of the securities pursuant to the contracts.

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**Plan of distribution**

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We may enter into agreements to indemnify underwriters, dealers and agents who participate in the distribution of securities against certain liabilities, including liabilities under the Securities Act.

We may also offer securities to third parties which provide us with services or other appropriate consideration such as licenses of technology. If we do so, we will provide the details of the arrangement with such third parties in a prospectus supplement.

Each series of securities will be a new issue and other than the Common Stock, which is quoted on the Nasdaq National Market, will have no established trading market. Unless otherwise specified in a related prospectus supplement, we will not have any obligation to list any series of securities on an exchange or otherwise. We cannot assure you that there will be any liquidity in the trading market for any of the securities.

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**Description of debt securities**

This prospectus describes certain general terms and provisions of our debt securities. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement whether the general terms and provisions described in this prospectus apply to a particular series of debt securities.

The debt securities offered by this prospectus will be issued under an indenture between us and the trustee named in the indenture. The indenture is subject to, and governed by, the Trust Indenture Act of 1939, as amended (the "TIA"). We have filed a copy of the form of indenture as an exhibit to the registration statement and you should read the indenture for provisions that may be important to you. We have summarized select portions of the indenture below. The summary is not complete. Capitalized terms used in the summary below have the meanings specified in the indenture.

**GENERAL**

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and detailed or determined in the manner provided in an officers' certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to the series, including any pricing supplement.

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will set forth in a prospectus supplement, including any pricing supplement, relating to any series of debt securities being offered, the initial offering price, the aggregate principal amount and the following terms of the debt securities:

- 4 the title of the debt securities;
- 4 the price or prices (expressed as a percentage of the aggregate principal amount) at which we will sell the debt securities;
- 4 any limit on the aggregate principal amount of the debt securities;
- 4 the date or dates on which we will pay the principal on the debt securities;
- 4 the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- 4 the place or places where principal of, premium, and interest on the debt securities will be payable;
- 4 the terms and conditions upon which we may redeem the debt securities;
- 4 the terms and conditions, if any, upon which the debt securities are convertible into common stock or preferred stock;
- 4 any obligation we have to redeem or purchase the debt securities pursuant to an sinking fund or analogous provisions or at the option of a holder of debt securities;
- 4 the dates on which and the price or prices at which we will repurchase the debt securities at the option of the holders of debt securities and other detailed terms and provisions of these repurchase obligations;

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**Description of debt securities**

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- 4 the denominations in which the debt securities will be issued, if other than denominations of \$1,000 and any integral multiple thereof;
  - 4 whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
  - 4 the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
  - 4 the currency of denomination of the debt securities;
  - 4 the designation of the currency, currencies or currency unit in which payment of principal of, and premium and interest on the debt securities will be made;
  - 4 if payments of principal of, or premium or interest on the debt securities will be made in one or more currencies or currency units other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
  - 4 the manner in which the amounts of payment of principal of, and premium or interest on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies other than that in which the debt securities are denominated or designated to be payable or by reference to a commodity, commodity index, stock exchange index or financial index;
  - 4 any provisions relating to any security provided for the debt securities;
  - 4 any addition to or change in the Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
  - 4 any addition to or change in the covenants described in this prospectus or in the indenture with respect to the debt securities;
  - 4 any other terms of the debt securities, which may modify or delete any provision of the indenture as it applies to that series; and
  - 4 any depositories, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities.
- We may issue debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

**PAYMENT OF INTEREST AND EXCHANGE**

Each debt security will be represented by either one or more global securities registered in the name of a clearing agency registered under the Securities Exchange Act of 1934, as amended, as Depositary, or

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### **Description of debt securities**

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a nominee of the Depositary (we will refer to any debt security represented by a global debt security as a book-entry debt security ), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a certificated debt security ), as described in the applicable prospectus supplement. Except as described under Global Debt Securities and Book-Entry System below, book-entry debt securities will not be issuable in certificated form.

*Debt Securities.* You may transfer or exchange certificated debt securities at the trustee's office or paying agencies in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may transfer certificated debt securities and the right to receive the principal of, and premium and interest on certificated debt securities only by surrendering the old certificate representing those certificated debt securities and either we or the trustee will reissue the old certificate to the new holder or we or the trustee will issue a new certificate to the new holder.

*Global Debt Securities and Book-Entry System.* Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the Depositary, and registered in the name of the Depositary or a nominee of the Depositary.

We expect that the Depositary will follow substantially the following procedures with respect to book-entry debt securities.

Ownership of beneficial interests in book-entry debt securities will be limited to persons that have accounts with the Depositary for the related global debt security, otherwise referred to as participants, or persons that may hold interests through participants. Upon the issuance of a global debt security, the Depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal amounts of the book-entry debt securities represented by the global debt security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters or agents participating in the distribution of the book-entry debt securities. Ownership of book-entry debt securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the Depositary for the related global debt security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer or pledge beneficial interests in book-entry debt securities.

So long as the Depositary for a global debt security, or its nominee, is the registered owner of that global debt security, the Depositary or its nominee, as the case may be, will be considered the sole owner or holder of the book-entry debt securities represented by such global debt security for all purposes under the indenture. Except as described herein, beneficial owners of book-entry debt securities will not be entitled to have securities registered in their names, will not receive or be entitled to receive physical delivery of a certificate in definitive form representing securities and will not be considered the owners or holders of those securities under the indenture. Accordingly, to exercise any rights of a holder under the indenture, each person beneficially owning book-entry debt securities must rely on the procedures of the Depositary for the related global debt security and, if that person is not a participant, on the procedures of the participant through which that person owns its interest.

We understand, however, that under existing industry practice, the Depositary will authorize the persons on whose behalf it holds a global debt security to exercise certain rights of holders of debt securities, and the indenture provides that we, the trustee and our respective agents will treat as the holder of a debt security the persons specified in a written statement of the Depositary with respect to

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that global debt security for purposes of obtaining any consents or directions required to be given by holders of the debt securities pursuant to the indenture.

We will make payments of principal of, and premium and interest on book-entry debt securities to the Depository or its nominee, as the case may be, as the registered holder of the related global debt security. Geron, the trustee and any other agent of ours or agent of the trustee will not have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

We expect that the Depository, upon receipt of any payment of principal of, or premium or interest on a global debt security, will immediately credit participants' accounts with payments in amounts proportionate to the respective amounts of book-entry debt securities held by each participant as shown on the records of the Depository. We also expect that payments by participants to owners of beneficial interests in book-entry debt securities held through those participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers in bearer form or registered in street name, and will be the responsibility of those participants.

We will issue certificated debt securities in exchange for each global debt security if the Depository is at any time unwilling or unable to continue as Depository or ceases to be a clearing agency registered under the Exchange Act, and a successor Depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days. In addition, we may at any time and in our sole discretion determine not to have any of the book-entry debt securities of any series represented by one or more global debt securities and, in that event, we will issue certificated debt securities in exchange for the global debt securities of that series. Global debt securities will also be exchangeable by the holders for certificated debt securities if an Event of Default with respect to the book-entry debt securities represented by those global debt securities has occurred and is continuing. Any certificated debt securities issued in exchange for a global debt security will be registered in such name or names as the Depository shall instruct the trustee. We expect that such instructions will be based upon directions received by the Depository from participants with respect to ownership of book-entry debt securities relating to such global debt security.

We have obtained the foregoing information in this section concerning the Depository and the Depository's book-entry system from sources we believe to be reliable, but we take no responsibility for the accuracy of this information.

### **REDEMPTION**

We will describe in the applicable prospectus supplement the terms and conditions, if any, upon which the debt securities are redeemable. These terms will include:

- 4 provisions regarding whether redemption will be at our option or the option of the holders;
- 4 the time for delivery and required content of a notice of redemption to the trustee and the holders;
- 4 the manner of selection of debt securities to be redeemed; and
- 4 provisions regarding the payment of the redemption price.

### **CONSOLIDATION, MERGER AND SALE OF ASSETS**

We may not consolidate with or merge into, or convey, transfer or lease all or substantially all of our properties and assets to, any person (a successor person), and we may not permit any person to

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### **Description of debt securities**

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merge into, or convey, transfer or lease its properties and assets substantially as an entirety to us, unless:

- 4 the successor person is a corporation, partnership, trust or other entity organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture;
- 4 immediately after giving effect to the transaction, no Event of Default, and no event which, after notice or lapse of time, or both, would become an Event of Default, shall have occurred and be continuing under the indenture; and
- 4 we deliver to the trustee an officer's certificate and legal opinion covering compliance with the conditions listed above.

### **COVENANTS**

In addition to our obligation to make payments of principal and interest on the debt securities in accordance with their terms, the indenture contains covenants requiring us to:

- 4 deliver to the trustee, within 15 days of filing, copies of all filings made by us with the Securities and Exchange Commission pursuant to Section 13 or 15(d) of the Securities Exchange Act;
- 4 deliver to the trustee, within 90 days after the end of each of our fiscal years, an officer's certificate stating that we have fulfilled our obligations under the indenture during the preceding fiscal year;
- 4 to the extent we may lawfully do so, refrain from claiming or taking advantage of any stay, extension or usury law which may affect our obligations under the indenture or the debt securities;
- 4 preserve our corporate existence, except as permitted under Consolidation, Merger and Sale of Assets, and preserve our rights, licenses and franchises, and the existence of our significant subsidiaries, unless our board of directors determines that it is no longer desirable in the conduct of our business to preserve those rights, license or franchises, or to preserve the existence of any significant subsidiary; and
- 4 pay when due all taxes, assessments and governmental levies, except those that we contest in good faith.

Unless we state otherwise in (a) the applicable prospectus supplement and in a supplement to the indenture, (b) a board resolution, or (c) an officer's certificate delivered pursuant to the indenture, the debt securities will not contain any other restrictive covenants, including covenants restricting us or any of our subsidiaries from incurring, issuing, assuming or guarantying any indebtedness secured by a lien on any of our or our subsidiaries' property or capital stock, or restricting us or any of our subsidiaries from entering into any sale and leaseback transactions.

### **EVENTS OF DEFAULT**

Event of Default means with respect to any series of debt securities, any of the following:

- 4 default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of that default for a period of 30 days (unless the entire amount of such payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
  - 4 default in the payment of principal of or premium on any debt security of that series when due and payable;
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- 4 default in the deposit of any sinking fund payment, when and as due in respect of any debt security of that series;
- 4 default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee or we and the trustee receive written notice from the holders of at least 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;
- 4 an event of default under any of our debt (including a default with respect to debt securities of any series other than that series) or any subsidiary, whether that debt exists today or is created at a later date, if
  - 4 the default results from our failure to pay the debt when it becomes due;
  - 4 the principal amount of the debt, together with the principal amount of any other debt in default for failure to pay principal at stated final maturity or the maturity of which has been accelerated, at any time exceeds a specified amount; and
  - 4 the debt is not discharged or the acceleration is not rescinded or annulled within 10 days after we receive written notice as provided in the indenture;
- 4 events of bankruptcy, insolvency or reorganization as provided in the indenture; and
- 4 any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement accompanying this prospectus.

No Event of Default with respect to a particular series of debt securities (except as to events of bankruptcy, insolvency or reorganization described in the indenture) necessarily constitutes an Event of Default with respect to any other series of debt securities. An Event of Default may also be an event of default under our bank credit agreements in existence from time to time and under certain guaranties by us of any subsidiary indebtedness. In addition, certain Events of Default or an acceleration under the indenture may also be an event of default under some of our other indebtedness outstanding from time to time.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing, then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by written notice to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and premium of all debt securities of that series. In the case of an Event of Default resulting from events of bankruptcy, insolvency or reorganization, the principal (or the specified amount) and premium of all outstanding debt securities will become and be immediately due and payable without any declaration or other act by the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before the trustee has obtained a judgment or decree for payment of the money due, the holders of a majority in principal amount of the outstanding debt securities of that series may, subject to our having paid or deposited with the trustee a sum sufficient to pay overdue interest and principal which has become due other than by acceleration and certain other conditions, rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and premium with respect to debt securities of that series, have been cured or waived as provided in the indenture. For information as to waiver of defaults see the discussion under **Modification and Waiver** below. We refer you to the prospectus supplement relating to any series of debt securities that

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### **Description of debt securities**

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are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of the discount securities upon the occurrence of an Event of Default and the continuation of an Event of Default.

The indenture provides that the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any holder of outstanding debt securities, unless the trustee receives indemnity satisfactory to it against any loss, liability or expense. Subject to the rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- 4 that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- 4 the holders of at least 25% in principal amount of the outstanding debt securities of that series have made written request, and offered reasonable indemnity, to the trustee to institute such proceeding as trustee, and the trustee shall not have received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding the foregoing, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, and premium and any interest on, that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture provides that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if it in good faith determines that withholding notice is in the interest of the holders of those debt securities.

### **CONVERSION RIGHTS**

We will describe in the applicable prospectus supplement the terms and conditions, if any, upon which the debt securities are convertible into common stock or preferred stock. Those terms will include:

- 4 whether the debt securities are convertible into common stock or preferred stock;
- 4 the conversion price, or manner of calculation;
- 4 the conversion period;
- 4 provisions regarding whether conversion will be at our option or the option of the holders;
- 4 the events requiring an adjustment of the conversion price; and
- 4 provisions affecting conversion in the event of the redemption of the debt securities.

### **MODIFICATION AND WAIVER**

We and the trustee may modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We and the trustee may not make any modification or amendment

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without the consent of the holder of each affected debt security then outstanding if that amendment will:

- 4 change the amount of debt securities whose holders must consent to an amendment or waiver;
- 4 reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- 4 reduce the principal of or premium on or change the fixed maturity of any debt security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- 4 reduce the principal amount of discount securities payable upon acceleration of maturity;
- 4 waive a default in the payment of the principal of, or premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from that acceleration);
- 4 make the principal of, or premium or interest on any debt security payable in currency other than that stated in the debt security;
- 4 make any change to provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, and premium and interest on those debt securities and to institute suit for the enforcement of any payment and to waivers or amendments; or
- 4 waive a redemption payment with respect to any debt security or change any of the provisions with respect to the redemption of any debt securities.

Except for waivers having the effects listed immediately above, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of that series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, or premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

**DEFEASANCE OF DEBT SECURITIES AND CERTAIN COVENANTS IN CERTAIN CIRCUMSTANCES**

*Legal Defeasance.* The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (except for obligations to register the transfer or exchange of debt securities of the series, to replace stolen, lost or mutilated debt securities of the series, and to maintain paying agencies and provisions relating to the treatment of funds held by paying agents). We will be so discharged upon the deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on

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the stated maturity of such payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an officers' certificate and an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that holders of the debt securities of such series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amount and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

*Defeasance of Certain Covenants.* The indenture provides that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with conditions specified in the indenture:

4 we may omit to comply with the restrictive covenants contained in Sections 4.2 through 4.6 and Section 5.1 of the indenture, as well as any additional covenants contained in a supplement to the indenture, a board resolution or an officers' certificate delivered pursuant to the indenture; and

4 Events of Default under Section 6.1(e) of the indenture will not constitute a Default or an Event of Default with respect to the debt securities of that series.

The conditions include:

4 depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, foreign government obligations, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities; and

4 delivering to the trustee an opinion of counsel to the effect that the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax in the same amount and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

*Covenant Defeasance and Events of Default.* In the event we exercise our option not to comply with certain covenants of the indenture with respect to any series of debt securities and the debt securities of that series are declared due and payable because of the occurrence of any Event of Default, the amount of money and/or U.S. government obligations or foreign government obligations on deposit with the trustee will be sufficient to pay amounts due on the debt securities of that series at the time of their stated maturity but may not be sufficient to pay amounts due on the debt securities of that series at the time of the acceleration resulting from the Event of Default. However, we will remain liable for those payments.

Foreign government obligations means, with respect to debt securities of any series that are denominated in a currency other than U.S. Dollars:

4 direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged, which are not callable or redeemable at the option of the issuer thereof; or

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- 4 obligations of a person controlled or supervised by or acting as an agency or instrumentality of that government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by that government, which are not callable or redeemable at the option of the issuer thereof.

**GOVERNING LAW**

The indenture and the debt securities will be governed by, and construed in accordance with, the internal laws of the State of New York.

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## Description of common stock

The following summary of the terms of our common stock does not purport to be complete and is subject to and qualified in its entirety by reference to our charter and bylaws, copies of which are on file with the Commission as exhibits to registration statements previously filed by us. See Where you can find more information.

We have authority to issue 50,000,000 shares of common stock, \$.001 par value per share. As of December 31, 2001, we had 24,481,774 shares of common stock outstanding.

The holders of our common stock are entitled to one vote per share on all matters to be voted upon by the stockholders. Subject to preferences that may be applicable to any outstanding shares of our preferred stock, the holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our Board of Directors out of funds legally available for that purpose. In the event of a liquidation, dissolution or winding up of the company, the holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities, subject to preferences applicable to shares of our preferred stock, if any, then outstanding. The common stock has no preemptive or conversion rights or other subscription rights. There are no redemption or sinking fund provisions available to the common stock. All outstanding shares of our common stock are, and the shares of common stock offered by this prospectus will be, fully paid and nonassessable.

### **TRANSFER AGENT AND REGISTRAR**

The transfer agent and registrar for the common stock is U.S. Stock Transfer Corporation.

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## Description of preferred stock

We have authority to issue 3,000,000 shares of preferred stock, \$.001 par value per share. As of December 31, 2001, we had no shares of preferred stock outstanding.

### **GENERAL**

Under our Certificate of Incorporation, our board of directors is authorized generally without stockholder approval to issue shares of preferred stock from time to time, in one or more classes or series. Prior to the issuance of shares of each series, the board of directors is required by the Delaware General Corporation Law and our Certificate of Incorporation to adopt resolutions and file a certificate of designation with the Secretary of State of the State of Delaware. The certificate of designation fixes for each class or series the designations, powers, preferences, rights, qualifications, limitations and restrictions, including, but not limited to, the following:

- 4 the number of shares constituting each class or series;
- 4 voting rights;
- 4 rights and terms of redemption (including sinking fund provisions);
- 4 dividend rights and rates;
- 4 dissolution;
- 4 terms concerning the distribution of assets;
- 4 conversion or exchange terms;
- 4 redemption prices; and
- 4 liquidation preferences.

All shares of preferred stock offered hereby will, when issued, be fully paid and nonassessable and will not have any preemptive or similar rights. Our board of directors could authorize the issuance of shares of preferred stock with terms and conditions which could have the effect of discouraging a takeover or other transaction that might involve a premium price for holders of the shares or which holders might believe to be in their best interests.

We will set forth in a prospectus supplement relating to the class or series of preferred stock being offered the following terms:

- 4 the title and stated value of the preferred stock;
- 4 the number of shares of the preferred stock offered, the liquidation preference per share and the offering price of the preferred stock;
- 4 the dividend rate(s), period(s) and/or payment date(s) or method(s) of calculation applicable to the preferred stock;
- 4 whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends on the preferred stock will accumulate;
- 4 the procedures for any auction and remarketing, if any, for the preferred stock;
- 4 the provisions for a sinking fund, if any, for the preferred stock;
- 4 the provision for redemption, if applicable, of the preferred stock;



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**Description of preferred stock**

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- 4 any listing of the preferred stock on any securities exchange;
- 4 the terms and conditions, if applicable, upon which the preferred stock will be convertible into common stock, including the conversion price (or manner of calculation) and conversion period;
- 4 voting rights, if any, of the preferred stock;
- 4 whether interests in the preferred stock will be represented by depositary shares;
- 4 a discussion of any material and/or special United States Federal income tax considerations applicable to the preferred stock;
- 4 the relative ranking and preferences of the preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;
- 4 any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the class or series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- 4 any other specific terms, preferences, rights, limitations or restrictions of the preferred stock.

**RANK**

Unless we specify otherwise in the applicable prospectus supplement, the preferred stock will rank, with respect to dividends and upon our liquidation, dissolution or winding up:

- 4 senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- 4 on a parity with all of our equity securities the terms of which specifically provide that the equity securities rank on a parity with the preferred stock; and
- 4 junior to all of our equity securities the terms of which specifically provide that the equity securities rank senior to the preferred stock. The term "equity securities" does not include convertible debt securities.

**TRANSFER AGENT AND REGISTRAR**

The transfer agent and registrar for any series or class of preferred stock will be set forth in the applicable prospectus supplement.

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**Description of warrants**

As of December 31, 2001, we had warrants to purchase 1,381,511 shares of our common stock outstanding (other than options issued under our stock option plans and non-qualified options issued to our employees and consultants outside of our stock option plans). We may issue warrants for the purchase of debt securities, common stock or preferred stock. We may issue warrants independently or together with any other offered securities offered by any prospectus supplement and may be attached to or separate from the other offered securities. Each series of warrants will be issued under a separate warrant agreement to be entered into by us with a warrant agent specified in the applicable prospectus supplement. The warrant agent will act solely as our agent in connection with the series of warrants and will not assume any obligation or relationship of agency or trust for or with any provisions of the warrants. Further terms of the warrants and the applicable warrant agreements will be set forth in the applicable prospectus supplement.

The applicable prospectus supplement will describe the terms of the warrants in respect of which this prospectus is being delivered, including, where applicable, the following:

- 4 the title of the warrants;
- 4 the aggregate number of the warrants;
- 4 the price or prices at which the warrants will be issued;
- 4 the designation, terms and number of shares of debt securities, preferred stock or common stock purchasable upon exercise of the warrants;
- 4 the designation and terms of the offered securities, if any, with which the warrants are issued and the number of the warrants issued with each the offered security;
- 4 the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- 4 the price at which each share of debt securities, preferred stock or common stock purchasable upon exercise of the warrants may be purchased;
- 4 the date on which the right to exercise the warrants shall commence and expires;
- 4 the minimum or maximum amount of the warrants which may be exercised at any one time;
- 4 information with respect to book-entry procedures, if any;
- 4 a discussion of certain federal income tax considerations;
- 4 any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

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**Certain provisions of Delaware law and of the company's charter and bylaws**

The following paragraphs summarize certain provisions of the Delaware General Corporation Law and the Company's Charter and Bylaws. The summary does not purport to be complete and is subject to and qualified in its entirety by reference to the DGCL and to the Company's Charter and Bylaws, copies of which are on file with the commission as exhibits to registration statements previously filed by the Company. See [Where You Can Find More Information](#).

Our Certificate of Incorporation and Bylaws contain provisions that, together with the ownership position of the officers, directors and their affiliates, could discourage potential takeover attempts and make it more difficult for stockholders to change management, which could adversely affect the market place of our common stock.

Our Certificate of Incorporation limits the personal liability of our directors to Geron and our stockholders to the fullest extent permitted by the Delaware General Corporation Law, or DGCL. The inclusion of this provision in our Certificate of Incorporation may reduce the likelihood of derivative litigation against directors and may discourage or deter stockholders or management from bringing a lawsuit against directors for breach of their duty of care.

Our Bylaws provide that special meetings of stockholders can be called only by the Board of Directors, the Chairman of the Board of Directors or the Chief Executive Officer. Stockholders are not permitted to call a special meeting and cannot require the Board of Directors to call a special meeting. Any vacancy on the Board of Directors resulting from death, resignation, removal or otherwise or newly created directorships may be filled only by vote of the majority of directors then in office, or by a sole remaining director. Our Bylaws also provide for a classified board. See [Description of Common Stock](#).

We are subject to the [business combination](#) statute of the DGCL, an anti-takeover law enacted in 1988. In general, Section 203 of the DGCL prohibits a publicly-held Delaware corporation from engaging in a [business combination](#) with an [interested stockholder](#), for a period of three years after the date of the transaction in which a person became an [interested stockholder](#), unless:

- 4 prior to such date the board of directors of the corporation approved either the [business combination](#) or the transaction which resulted in the stockholder becoming an [interested stockholder](#),
  - 4 upon consummation of the transaction which resulted in the stockholder becoming an [interested stockholder](#), the [interested stockholder](#) owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares outstanding those shares owned (1) by persons who are directors and also officers and (2) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer, or
  - 4 on or subsequent to such date the [business combination](#) is approved by the board of directors and authorized at an annual or special meeting of stockholders by the affirmative vote of a least 66% of the outstanding voting stock which is not owned by the [interested stockholder](#).
- A [business combination](#) includes mergers, stock or asset sales and other transactions resulting in a financial benefit to the [interested stockholders](#). An [interested stockholder](#) is a person who, together with affiliates and associates, owns (or within three years, did own) 15% or more of the corporation's voting stock. Although Section 203 permits us to elect not to be governed by its

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**Certain provisions of Delaware law and of  
the company's charter and bylaws**

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provisions, we have not made this election. As a result of the application of Section 203, potential acquirers of Geron may be discouraged from attempting to effect an acquisition transaction with us, thereby possibly depriving holders of our securities of certain opportunities to sell or otherwise dispose of such securities at above-market prices pursuant to such transactions.

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### Validity of securities

Latham & Watkins, Menlo Park, California, will pass on the validity of the issuance of all securities offered by this prospectus.

If the securities are underwritten, the applicable prospectus supplement will also set forth whether and to what extent, if any, a law firm for the underwriters will pass upon the validity of the shares.

### Experts

The consolidated financial statements of Geron Corporation appearing in Geron Corporation's Annual Report (Form 10-K) for the year ended December 31, 2000 have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

### Limitation on liability and disclosure of commission position on indemnification for securities act liabilities

Our bylaws provide for indemnification of our directors and officers to the fullest extent permitted by law. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or controlling persons of the Company pursuant to the Company's Certificate of Incorporation, as amended, bylaws and the Delaware General Corporation Law, the Company has been informed that in the opinion of the Commission such indemnification is against public policy as expressed in such Act and is therefore unenforceable.

### Where you can find more information

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at 450 Fifth Street, N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public at the SEC's web site at <http://www.sec.gov>. You may also inspect copies of these materials and other information about us at the offices of the Nasdaq Stock Market, Inc., National Market System, 1735 K Street, N.W., Washington, D.C. 20006-1500.

The SEC allows us to incorporate by reference the information we file with them which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 between the date of this prospectus and the termination of the offering:

- 4 Our annual report on Form 10-K for the fiscal year ended December 31, 2000;
- 4 Our definitive proxy statement filed pursuant to Section 14 of the Exchange Act in connection with our 2001 Annual Meeting of Stockholders;



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- 4 Our current reports on Form 8-K filed January 31, 2001, July 23, 2001, August 22, 2001, November 5, 2001, November 14, 2001, and January 18, 2002;
- 4 Our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2001, June 30, 2001 and September 30, 2001; and
- 4 The description of our common stock set forth in our registration statement on Form 8-A, filed with the Commission on June 13, 1996 (File No. 0-20859).

This prospectus is part of a registration statement on Form S-3 we have filed with the SEC under the Securities Act. This prospectus does not contain all of the information in the registration statement. We have omitted certain parts of the registration statement, as permitted by the rules and regulations of the SEC. You may inspect and copy the registration statement, including exhibits, at the SEC's public reference room or internet site. Our statements in this prospectus about the contents of any contract or other document are not necessarily complete. You should refer to the copy of each contract or other document we have filed as an exhibit to the registration statement for complete information.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to David L. Greenwood, Chief Financial Officer, Geron Corporation, 230 Constitution Drive, Menlo Park, California 94025, telephone: (650) 473-7700.

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