

GERON CORP
Form 424B5
December 06, 2010

The information in this preliminary prospectus supplement and the accompanying prospectus, relating to an effective registration statement under the Securities Act of 1933, as amended, is not complete and may be changed. 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 jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 6, 2010

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-160498

PRELIMINARY PROSPECTUS SUPPLEMENT
(to Prospectus dated July 22, 2009)

GERON CORPORATION

Shares of Common Stock

We are offering _____ shares of our common stock, par value \$0.001 per share, together with associated rights.

Our common stock is listed on The NASDAQ Global Market under the symbol "GERN." On December 3, 2010, the last reported sale price of our common stock was \$6.01 per share.

Investing in our common stock involves significant risks. See "Risk Factors" beginning on page S-6 of this prospectus supplement and page 1 of the accompanying prospectus.

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

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

We estimate the total expenses of this offering, excluding the underwriting discounts and commissions, will be approximately \$500,000. The underwriters may also purchase up to an additional _____ shares of our common stock from us at the public offering price, less underwriting discounts and commissions, to cover over-allotments, if any, within 30 days of the date of this prospectus supplement.

We anticipate that delivery of the shares of our common stock will be made through the facilities of the Depository Trust Company on or about December , 2010, subject to customary closing conditions.

Joint Book-Running Managers

J.P. Morgan

Lazard Capital Markets

Prospectus supplement dated December , 2010

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the offering and also adds to, updates or may change information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated July 22, 2009, including the documents incorporated by reference, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission (SEC) before the date of this prospectus supplement, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in the accompanying prospectus — the statement in the document having the later date modifies or supersedes the earlier statement. You should read this prospectus supplement and the accompanying prospectus, including the information incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus, along with the information contained in any free writing prospectus that we have authorized for use in connection with this offering. If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. We have not authorized anyone to provide you with different or additional information. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the respective dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise mentioned or unless the context indicates 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 consolidated subsidiaries.

SPECIAL NOTE REGARDING 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,” “could,” “anticipate,” “estimate,” “expect,” “intend,” “plan,” “will,” “may” or other 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:

- future product research and development activities, including the scope, timing, initiation and completion of clinical trials, and status of product development;
- the size and timing of expenditures and whether there are unanticipated expenditures;
- our requirements for additional capital;
- plans for regulatory filings;
- the timing of regulatory submissions and the timing, scope and anticipated outcome of related regulatory actions;
- our current and potential future collaborators’ ability to market, commercialize and achieve market acceptance for our product candidates or products that we may develop;
- our ability to maintain our collaborative arrangements and to establish and maintain potential new collaborative arrangements for the development and commercialization of our product candidates;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- the implementation of our corporate strategy;
- the amount and timing of our issuance of shares of our common stock to Angiochem, Inc. (Angiochem);
- the timing and amounts of any royalty or milestone payments to Angiochem pursuant to our exclusive license agreement with them;
- our estimates regarding the sufficiency of our cash resources and our use of the net proceeds from this offering; and
- future financial performance.

Any or all of our forward-looking statements in this prospectus supplement and the accompanying prospectus, the documents we have filed with the SEC that are incorporated by reference in this prospectus supplement and the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering may turn out to be wrong. They can be affected by inaccurate assumptions we might make or by known or unknown risks and uncertainties. Many factors mentioned in our discussion in this prospectus supplement and the accompanying prospectus will be important in determining future results. Consequently, no forward-looking statement can be guaranteed. Actual future results may vary materially.

We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. We advise you to consult the cautionary discussion of risks and uncertainties under the section captioned “Risk Factors” contained elsewhere in this prospectus supplement in its entirety. These are factors that we think could cause our actual results to differ materially from expected results. Other factors besides those listed could also adversely affect us. Given these risks, uncertainties and other important factors, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. This discussion is provided as permitted by the Private Securities Litigation Reform Act of 1995.

PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights and includes certain basic information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents we incorporate by reference. This summary is not complete and does not contain all of the information that you should consider before making an investment decision. To fully understand this offering and its consequences to you, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the factors described under the heading "Risk Factors" in this prospectus supplement beginning on page S-6, together with any free writing prospectus we have authorized for use in connection with this offering and the financial statements and other information incorporated by reference in this prospectus supplement and the accompanying prospectus. This prospectus supplement may add to, update or change information in the accompanying prospectus.

About Geron Corporation

Company Overview

Geron is developing first-in-class biopharmaceuticals for the treatment of cancer and chronic degenerative diseases. We are advancing anti-cancer therapies through multiple Phase 2 clinical trials in different cancers by targeting the enzyme telomerase and with compounds designed to penetrate the blood-brain barrier (BBB). We are developing cell therapy products from differentiated human embryonic stem cells for multiple indications, including central nervous system (CNS) disorders, heart failure, diabetes and osteoarthritis, and have initiated a Phase 1 clinical trial in spinal cord injury.

Recent Development

On December 6, 2010, we entered into an exclusive license agreement with Angiochem, Inc. (Angiochem) that provides us with a worldwide exclusive license, with the right to grant sublicenses, to Angiochem's proprietary peptide technology that facilitates the transfer of anti-cancer compounds across the BBB to enable the treatment of primary brain cancers and cancers that have metastasized to the brain. The exclusive license agreement covers Angiochem's proprietary receptor-targeting peptides conjugated to tubulin disassembly inhibitors, which includes, but are not limited to, taxanes and epothilones and their derivatives. The license specifically encompasses ANG1005 (now GRN1005), a novel taxane derivative, for which Angiochem has performed two Phase 1 clinical trials in patients with primary brain tumors and in patients with brain metastases from breast and lung cancer. As consideration for the license rights, we paid Angiochem an upfront payment of \$7.5 million in cash and have agreed to issue \$27.5 million of shares of our common stock, subject to a maximum of 9,000,000 shares, on or about January 5, 2011. The number of shares of common stock that we actually issue to Angiochem is dependent on the price of our common stock prior to the issuance date. If the value of the maximum number of shares, based on the five-day volume weighted average closing price of our common stock immediately preceding the issuance date, is less than \$27.5 million, we are obligated to pay the difference in cash. We are also required to file with the SEC a registration statement within five business days from the issuance of the shares of our common stock to Angiochem to register such shares for resale. Notwithstanding such registration, Angiochem has agreed with us not to dispose of the shares of common stock that we will issue to them, pursuant to a stock purchase agreement to be entered into on or about January 5, 2011, or swap, hedge or sell short any shares of our common stock or securities convertible into or exercisable or exchangeable for our common stock until the later of: (a) the effectiveness of the registration statement on Form S-3 that we are obligated to file to register such shares for resale; and (b) the expiration of the sixty (60) day "lock-up" period that we and each of our executive officers and directors have agreed to with the underwriters pursuant to the terms of the underwriting agreement, subject to extension thereunder. Thereafter, sales by Angiochem are subject to certain monthly volume restrictions.

Geron's anticipated clinical development plan for GRN1005 (formerly ANG1005) includes a Phase 2 clinical trial to be initiated in the second half of 2011 in patients with brain metastases arising from non-small cell lung cancer (NSCLC) and breast cancer. If the data from the previously completed Phase 1 trial in metastatic brain cancer are confirmed, and depending upon the strength of the data, the product candidate may have an opportunity for early marketing approval. Geron also plans to initiate a Phase 2 clinical trial in patients with glioblastoma multiforme in the first half of 2012.

We also entered into a collaboration and option agreement with Angiochem to research and develop any existing or future peptides that facilitate transfer across the BBB conjugated to one or more telomerase inhibitors (the Option Products Workplan). Under the collaboration agreement, Geron and Angiochem will form a Joint Research Committee, with representatives from each company and led by Geron, to oversee the Option Products Workplan. Geron has a right to obtain an exclusive, worldwide license, including the right to grant sublicenses, under certain of Angiochem's intellectual property, and to Angiochem's interest in certain of Angiochem's intellectual property from the collaboration, to develop, use, sell and otherwise commercialize any products developed from the collaboration.

Cancer Therapeutics and Diagnostics

We and our licensees are developing a range of anti-cancer therapies utilizing novel proprietary technology around telomerase and receptor-targeting peptides designed to facilitate crossing of the BBB.

Our product candidates targeting telomerase include telomerase inhibitors, telomerase therapeutic vaccines and diagnostics based on telomerase detection. We believe telomerase is an ideal target for cancer therapeutics and diagnostics because it appears to be universal (expressed in all major types of cancers studied to date), specific (not expressed in most normal cells), and critical (required for long-term survival of cancer cells). We believe that we have the dominant patent position in the field of telomerase.

The BBB prevents foreign substances, including over 95% of drugs, from entering the brain. This presents a practical challenge to the treatment of brain cancer, including primary tumors as well as brain metastases, which represent a substantial global unmet medical need. GRN1005 (formerly ANG1005) is designed to exploit a natural mechanism by which essential substances, such as lipids and hormones, successfully enter the brain through receptors in the BBB.

The following table briefly describes the cancer therapeutic and diagnostic products being developed by us or our licensees and the stage of development of these product candidates.

| Product Candidates | Product Description | Disease Treatment | Development Stage | Patient Enrollment Status |
|----------------------|---------------------------|--|-------------------|--|
| Imetelstat (GRN163L) | Telomerase Inhibitor | Breast Cancer | Phase 1 Trial | Open |
| | | Non-Small Cell Lung Cancer (NSCLC) | Phase 2 Trial * | Open |
| | | Breast Cancer | Phase 2 Trial * | Open |
| | | Multiple Myeloma | Phase 2 Trial * | Planned to open in Dec. 2010 |
| | | Essential Thrombocytosis | Phase 2 Trial * | Planned to open in Dec. 2010 |
| GRNVAC1 | Telomerase Cancer Vaccine | Acute Myelogenous Leukemia | Phase 2 Trial | Completed |
| GRN1005 (ANG1005) | CNS-Delivered Paclitaxel | Brain Metastasis (Breast Cancer and NSCLC) | Phase 2 Trial * | Planned to open in second half of 2011 |
| | | Glioblastoma Multiforme | Phase 2 Trial | Planned to open in first half of 2012 |

* Response results from the Phase 2 clinical trials are anticipated in the second half of 2012.

| Licensees | Product Description | Disease Treatment/Application | Development Stage |
|---------------------------|---------------------------|-------------------------------|-------------------------|
| Merck & Co | Telomerase Cancer Vaccine | Prostate and Solid Tumors | Phase 1 Trial |
| Sienna Cancer Diagnostics | Telomerase Diagnostic | Bladder Cancer | Preclinical Development |

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Human Embryonic Stem Cell (hESC) Therapeutics

We and our collaborators are developing therapeutic cells derived from hESCs. In October 2010, we initiated a Phase 1 clinical trial of our most advanced hESC-derived product, GRNOPC1, in patients with spinal cord injury, following clearance of our Investigational New Drug (IND) Application by the U.S. Food and Drug Administration (FDA) in July 2010. The following table briefly describes the hESC-derived therapeutics and products enabling the technology platform being developed by us or our collaborators and the stage of development of these product candidates.

| Product Candidates | Product Description | Disease Treatment | Development Stage | Patient Enrollment Status |
|--------------------|----------------------------------|-------------------------|-------------------|---------------------------|
| GRNOPC1 | Oligodendrocyte Progenitor Cells | Spinal Cord Injury | Phase 1 Trial ** | Open |
| | | Other CNS Indications * | Research | N/A |
| GRNCM1 | Cardiomyocytes | Heart Disease | Preclinical | N/A |
| GRNIC1 | Islets | Type 1 Diabetes | Research | N/A |
| GRNCHND1 | Chondrocytes | Osteoarthritis | Research | N/A |
| GRNVAC2 | Mature Dendritic Cells | Cancer Immunotherapy | Product Research | N/A |
| -- | Immature Dendritic Cells | Immune Rejection | Research | N/A |
| -- | Osteoblasts | Osteoporosis | Research | N/A |

* CNS indications being explored include multiple sclerosis, Alzheimer's disease, stroke and leukodystrophies.

** Interim results from the Phase 1 clinical trial are anticipated in 2012.

| Licensees/Collaborators | Product Description | Application | Development Stage |
|-------------------------|-------------------------------------|------------------|-------------------|
| Corning Incorporated | Synthemax™ Synthetic Surface Matrix | Culture of hESCs | On Market |
| GE Healthcare | Cardiomyocytes | Drug Screening | On Market |
| | Hepatocytes | Drug Screening | Research |

Telomerase Activation

We are developing small molecule compounds that transiently activate the enzyme telomerase. We believe controlled activation of telomerase may restore the regenerative and functional capacity of cells in various organ systems impacted by senescence, injury or chronic disease. Geron scientists and collaborators have investigated potential therapeutic application of small molecule telomerase activators using in vitro and in vivo models of human disease. The following table briefly describes the telomerase activator product candidate being developed by us or our collaborators and the stage of development of the product.

| Product Candidate | Product Description | Disease Treatment | Development Stage |
|-------------------|----------------------|-------------------|-------------------|
| GRN510 | Telomerase Activator | Fibrotic Diseases | Research |

Corporate Information

We were incorporated in the state of Delaware on November 28, 1990. Our principal executive offices are located at 230 Constitution Drive, Menlo Park, California 94025. Our telephone number is (650) 473-7700. Our website is www.geron.com. Information contained on our website does not constitute a part of this prospectus supplement.

The Offering

| | |
|---|--|
| Common stock offered by us pursuant to this prospectus supplement | shares |
| Common stock to be outstanding immediately after this offering | shares |
| Use of proceeds | We intend to use the net proceeds from this public offering to fund research and development, including clinical trials of our product candidates and product candidates that we have in-licensed, and for working capital and general corporate purposes. See “Use of Proceeds” on page S-22 of this prospectus supplement. |
| NASDAQ Global Market Symbol | GERN |
| Risk Factors | Investing in our common stock involves significant risks. See “Risk Factors” beginning on page S-6 of this prospectus supplement for a discussion of the factors you should carefully consider before deciding to invest in our common stock. |

Unless otherwise indicated, the number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 102,590,381 shares of common stock outstanding as of September 30, 2010 and excludes:

- up to a maximum of 9,000,000 shares of our common stock issuable to Angiochem pursuant to a stock purchase agreement to be entered into on or about January 5, 2011, as partial consideration for the rights we licensed from them pursuant to the exclusive license agreement we entered into on December 6, 2010;
- 12,925,086 shares of our common stock issuable upon the exercise of options outstanding as of September 30, 2010, having a weighted average exercise price of \$6.68 per share;
- 2,751,397 shares of our common stock issuable upon the exercise of warrants outstanding as of September 30, 2010 at a weighted average price of \$7.68 per share;
- an aggregate of 5,523,687 shares of our common stock reserved for future issuance under our 2002 Equity Incentive Plan and our 2006 Directors’ Stock Option Plan as of September 30, 2010; and
- 605,585 shares of our common stock reserved for future issuance under our 1996 Employee Stock Purchase Plan as of September 30, 2010.

The number of shares of our common stock outstanding as of September 30, 2010 includes 4,766,422 shares of our common stock for unvested restricted stock awards.

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

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, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, before investing in our common stock. If any of these risks actually occurs, our business, financial condition, results of operations and future prospects would likely be materially and adversely affected. In these circumstances, the market price of our common stock would likely decline, and you may lose all or part of your investment.

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. We have sponsored six Phase 1 or 1 / 2 trials of our lead anti-cancer drug, imetelstat, in patients with chronic lymphoproliferative diseases, solid tumor malignancies, non-small cell lung cancer, breast cancer and multiple myeloma. Five of those trials have completed patient enrollment and the remaining one is expected to complete enrollment in December 2010. We are advancing imetelstat to Phase 2 trials in four different malignancies and two are currently open for patient enrollment. Patient enrollment for the trial of our telomerase cancer vaccine, GRNVAC1, in patients with acute myelogenous leukemia is now complete. In July 2010, the U.S. Food and Drug Administration (FDA) lifted its clinical hold on the Investigational New Drug (IND) application for GRNOPC1, our human embryonic stem cell (hESC)-derived therapy targeted for the treatment of acute spinal cord injury. In October 2010, the first patient was enrolled into the Phase 1 multi-center trial that is designed to establish the safety of GRNOPC1 in patients with "complete" American Spinal Injury Association (ASIA) grade A subacute thoracic spinal cord injuries.

On December 6, 2010, we entered into an exclusive license agreement with Angiochem, Inc. (Angiochem) with respect to Angiochem's proprietary peptide technology that facilitates the transfer of anti-cancer compounds across the blood-brain barrier (BBB) to enable the treatment of primary brain cancers and cancers that have metastasized to the brain. The exclusive license agreement covers Angiochem's proprietary receptor-targeting peptides conjugated to tubulin disassembly inhibitors, including ANG1005 (now GRN1005), a novel taxane derivative.

Our ability to develop product candidates that progress to and through clinical trials is subject to our ability to, among other things:

- succeed in our research and development efforts;
- select therapeutic compounds or cell therapies for development;
- obtain required regulatory approvals;
- finance, or obtain additional financing for, our clinical trials;
- manufacture product candidates; and
- collaborate successfully with clinical trial sites, academic institutions, physician investigators, clinical research organizations and other third parties.

Potential lead drug compounds or other product candidates and technologies require significant preclinical and clinical testing prior to regulatory approval in the United States and other countries. Our product candidates 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 product candidates may not prove to be more effective for treating disease or injury than current therapies. Accordingly, we may have to delay or abandon efforts to research, develop or obtain regulatory approvals 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 or will be approved by regulators or marketed successfully. Competitors may have proprietary rights which prevent us from developing and marketing our products or they may sell similar, superior or lower-cost products. Because of the significant scientific, regulatory and commercial milestones that must be reached for any of our development programs or product candidates to be successful, any program or product candidate may be abandoned, even after we have expended significant resources, such as our investments or prospective

investments in telomerase technology, receptor-targeting peptide technology to cross the BBB, hESCs, imetelstat, GRN1005 (formerly ANG1005), GRNVAC1 and GRNOPC1, which could adversely affect our business and materially and adversely affect our stock price.

The science and technology of telomere biology, telomerase, receptor-targeting peptides that cross the BBB and hESCs are relatively new. Further, the information we have related to the ability of GRN1005 (formerly ANG1005) to penetrate brain tissue and its anti-tumor activity is preliminary and based on Phase 1 clinical studies. There is no precedent for the successful commercialization of therapeutic product candidates based on these technologies. Therefore, our development programs are particularly risky and uncertain. In addition, we, our licensees or our collaborators must undertake significant research and development activities to develop product candidates based on these technologies, which will require additional funding and may take years to accomplish, if ever.

Restrictions on the use of hESCs, political commentary and the ethical and social implications of research involving hESCs could prevent us from developing or gaining acceptance for commercially viable products based upon such stem cells and adversely affect the market price of our common stock.

Some of our most important programs involve the use of stem cells that are derived from human embryos. The use of hESCs gives rise to ethical and social issues regarding the appropriate use of these cells. Our research related to hESCs may become the subject of adverse commentary or publicity, which could significantly harm the market price of our common stock.

Some political and religious groups have voiced opposition to our technology and practices. We use stem cells derived from human embryos that had been created for in vitro fertilization procedures but were no longer desired or suitable for that use and were donated with appropriate informed consent. 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 hESCs, thereby impairing our ability to conduct research in this field.

Government-imposed restrictions with respect to use of embryos or hESCs in research and development could have a material effect on our business, including:

- harming our ability to establish critical partnerships and collaborations;
- delaying or preventing progress in our research, product development or clinical testing; and
- preventing commercialization of therapies derived from hESCs.

These potential effects and others may result in a decrease in the market price of our common stock.

Changes in governmental regulations relating to funding of stem cell research may also materially impact our product development programs and result in an increase to the volatility of the market price of our common stock. For example, in March 2009 President Obama issued Executive Order 13505, entitled "Removing Barriers to Responsible Scientific Research Involving Human Stem Cells." As a result, the Secretary of Health and Human Services, through the Director of the National Institutes of Health (NIH), issued new guidelines relating to human stem cell research to allow federal funding for research using hESCs derived from embryos created by in vitro fertilization for reproductive purposes, but are no longer needed for that purpose. However, in August 2010 the Federal District Court for the District of Columbia issued a preliminary injunction prohibiting federal funding for hESC research. In September 2010, a federal appeals court lifted the injunction. Meanwhile, certain states are considering enacting, or already have enacted, legislation relating to stem cell research, including California, whose voters approved Proposition 71 to provide state funds for stem cell research in November 2004. In the United Kingdom and other countries, the use of embryonic or fetal tissue in research (including the derivation of hESCs) is regulated by the government, whether or not the research involves government funding.

RISKS RELATED TO OUR FINANCIAL POSITION AND NEED FOR ADDITIONAL FINANCING

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 September 30, 2010, our accumulated deficit was approximately \$629.3 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, 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 and revenues from our licensing arrangements. We may be unsuccessful in entering into any new corporate collaboration or license agreements that result 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.

While we receive royalty revenue from licenses, we do not currently expect to receive sufficient royalty revenues from these licenses to independently sustain our operations. Our ability to continue or expand our research and development 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 product candidates, 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 product candidates, and we cannot assure you that our existing capital resources, interest income and equipment financing arrangement will be sufficient to fund future planned operations. The timing and degree of any future capital requirements will depend on many factors, including:

- the accuracy of the assumptions underlying our estimates for our capital needs for the remainder of the 2010 fiscal year and beyond;
- the magnitude and scope of our research and development programs;
- the progress we make in our research and development programs, preclinical development and clinical trials;
- our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- the number and type of product candidates that we pursue;
- the time and costs involved in obtaining regulatory approvals and clearances; and
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims.

We do not have any committed sources of capital, other than our equipment financing facility. 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. The receptivity of the public and private equity markets to proposed financings is substantially affected by the general economic, market and political climate and by other factors which are unpredictable and over which we have no control. Additional equity financings, if we obtain them, could result in significant dilution to our 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 proposed 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 programs, any of which could have a material adverse effect on our business.

RISKS RELATED TO CLINICAL AND COMMERCIALIZATION ACTIVITIES

Delays in the commencement of clinical testing of our current and potential product candidates could result in increased costs to us and delay our ability to generate revenues.

The commencement of clinical trials can be delayed for a variety of reasons, including delays in:

- demonstrating sufficient safety and efficacy to obtain regulatory clearance to commence a clinical trial;
- manufacturing sufficient quantities or producing drugs meeting our quality standards of a product candidate;
- obtaining approval of an IND application or proposed trial design from the FDA;
- reaching agreement on acceptable terms with our collaborators on all aspects of the clinical trial, including the contract research organizations (CROs) and the trial sites; and
- obtaining institutional review board approval to conduct a clinical trial at a prospective site.

In addition, clinical trials may be delayed due to insufficient patient enrollment, which is a function of many factors, including the size and nature of the patient population, the nature of the protocol, the proximity of patients to clinical sites, the availability of effective treatments for the relevant disease, and the eligibility criteria for the clinical trial. Delays in commencing clinical testing of our product candidates could prevent or delay us from obtaining approval for our product candidates.

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

We have no experience as a company in conducting large-scale, late stage clinical trials. We cannot be certain that planned clinical trials will begin or be completed on time, if at all. Large-scale trials would require either additional financial and management resources, or reliance on third-party clinical investigators, CROs or consultants. Relying on third-party clinical investigators or CROs may force us to encounter delays that are outside of our control. Any such delays could have a material adverse effect on our business.

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. The inability to commercialize and market our product candidates could materially adversely affect our business.

Obtaining regulatory approvals to market our product candidates in the United States and other countries is a costly and lengthy process and we cannot predict whether or when we will be permitted to commercialize our product candidates.

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 and may prevent us from creating commercially viable products from our discoveries. The regulatory process, particularly for biopharmaceutical product candidates like ours, is uncertain, can take many years and requires the expenditure of substantial resources.

Our potential product candidates will require extensive preclinical and clinical testing prior to submission of any regulatory application to commence commercial sales. In particular, human pharmaceutical therapeutic product candidates are subject to rigorous requirements of the FDA in the United States and similar health authorities in other countries in order to demonstrate safety and efficacy. Data obtained from preclinical and clinical activities is susceptible to varying interpretations that could delay, limit or prevent regulatory agency approvals. 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 for a product candidate.

Any product candidate that we or our collaborators develop must receive all relevant regulatory agency approvals before it may be marketed in the United States or other countries. Obtaining regulatory approval is a lengthy, expensive and uncertain process. Because certain of our product candidates involve the application of new technologies or

are based upon a new therapeutic approach, they may be subject to substantial additional review by various government regulatory authorities, and, as a result, the process of obtaining regulatory approvals for them may proceed more slowly than for product candidates based upon more conventional technologies.

Delays in obtaining regulatory agency approvals could:

- significantly harm the marketing of any products that we or our collaborators develop;
- impose costly procedures upon our activities or the activities of our collaborators;
- diminish any competitive advantages that we or our collaborators may attain; or
- 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 may not be obtained for any product candidates developed by us or in collaboration with us. If we obtain regulatory agency approval for a new product, this approval may entail limitations on the indicated uses for which it can be marketed that could limit the potential commercial use of the product.

Failure to achieve continued compliance with government regulation over approved products could delay or halt commercialization of our products.

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. The future sale by us or our collaborators of any commercially viable product will be subject to government regulation from several standpoints, including the processes of:

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

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.

Failure to comply with regulatory requirements can result in severe civil and criminal penalties, including but not limited to:

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

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

RISKS RELATED TO PROTECTING OUR INTELLECTUAL PROPERTY

Impairment of our intellectual property rights may adversely affect the value of our technologies and product candidates and limit our ability to pursue their development.

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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. 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, we may not be able to further develop or commercialize our product candidates and our business would be negatively impacted.

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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 and pharmaceutical patents in the United States and in other countries are evolving, and the extent to which we will be able to obtain patent coverage to protect our technology, or enforce issued patents, is uncertain. In the United States, recent court decisions in patent cases as well as proposed legislative changes to the patent system only exacerbate this uncertainty. Furthermore, significant amendments to the regulations governing the process of obtaining patents were proposed in a new rule package by the United States Patent and Trademark Office (the Patent Office) in 2007. The proposed new rules were widely regarded as detrimental to the interests of biotechnology and pharmaceutical companies. The implementation of the rule package was blocked by a court injunction requested by a pharmaceutical company. The Patent Office challenged the court decision through an appeal to the U.S. Court of Appeals for the Federal Circuit (CAFC), but the appeal was dismissed in November 2009, after the Patent Office changed course and rescinded the proposed new rules. At this point we do not know whether the Patent Office will attempt to introduce new rules to replace those that were recently withdrawn or whether any such new rules would also be challenged.

In Europe, the European Patent Convention prohibits the granting of European patents for inventions that concern “uses of human embryos for industrial or commercial purposes.” The European Patent Office (EPO) was earlier interpreting this prohibition broadly, and applying it to reject claims in any patent application that pertained to hESCs. An early patent application filed by the Wisconsin Alumni Research Foundation (WARF) with claims covering the original isolation of hESCs was appealed as a test case, and examination of other hESC patent applications was suspended while that case was heard. In November 2008, the EPO Enlarged Board of Appeals held that the claims in the WARF application were unpatentable. Geron holds a worldwide license under this patent family, and since the decision is not subject to further appeal, this WARF patent family will not afford protection to Geron’s hESC-based product candidates in Europe. However, the reason given by the EPO for the decision was narrowly focused: the EPO found the claims objectionable on the basis that at the time that WARF filed the patent application it was necessary to use a human embryo to obtain hESCs since no cell lines were available. In contrast, the hESCs that we use, and which we employed in the technologies claimed in our own European patent applications, were sourced from established hESC lines. Consequently, the decision in the WARF case does not directly address the patentability of the subject matter in our filings. The EPO has recently restarted examination of hESC patent applications, but is being inconsistent in its application of the WARF decision to these later filed cases. At this time, we do not know whether or to what extent we will be able to obtain patent protection for our hESC technologies in Europe. If we are unable to protect our inventions related to hESCs in Europe, our business would be negatively impacted.

Challenges to our patent rights can result in costly and time-consuming legal proceedings that may prevent or limit development of our product candidates.

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 more than one party seeks U.S. patent protection for the same technology, the 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. By way of example, we are currently a party to an interference proceeding that involves patent filings for making endoderm cells from hESCs. We requested that the Patent Office declare this interference after Novocell Inc. (recently renamed ViaCyte, Inc. (ViaCyte)) was granted patent claims that conflict with subject matter we filed in an earlier patent application. A number of outcomes are possible: (i) the claims may be awarded to ViaCyte; (ii) the claims may be awarded to Geron, or (iii) neither party might be found to be entitled to the claims. The decision from the Patent Office may also be subject to appeal. Since the interference is still ongoing, we cannot predict what the outcome will be.

Outside of the United States, certain jurisdictions, such as Europe, New Zealand 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 our patent applications against oppositions filed by others. For example, we have been involved in two patent oppositions before the EPO with a Danish company, Pharmexa. Pharmexa (which acquired the Norwegian company GemVax in 2005) is developing a cancer vaccine that employs a short telomerase peptide to induce an immune response against telomerase and is conducting a Phase 3 clinical trial. Pharmexa obtained a European patent with broad claims to the use of telomerase vaccines for the treatment of cancer, and Geron opposed that patent in 2004. In 2005, the Opposition Division (OD) of the EPO revoked the claims originally granted to Pharmexa, but permitted Pharmexa to add new, narrower claims limited to five specific small peptide fragments of telomerase. The decision was appealed to the Technical Board of Appeals (TBA). In August 2007, the TBA ruled, consistent with the decision of the OD, that Pharmexa was not entitled to the originally granted broad claims but was only entitled to the narrow claims limited to the five small peptides. In late 2008, Pharmexa reported that it sold its telomerase vaccine program to a Korean company, KAEL Co. Ltd., and the continuing company now operates under the name KAEL-GemVax. KAEL-GemVax was recently granted a further related European patent covering its telomerase peptide vaccine against which we have filed an opposition. That opposition is ongoing and we cannot predict the outcome.

In parallel, Pharmexa opposed a European patent held by Geron, the claims of which cover many facets of human telomerase, including the use of telomerase peptides in cancer vaccines. In June 2006, the OD of the EPO revoked three of the granted claims in Geron's patent, specifically the three claims covering telomerase peptide cancer vaccines. We have appealed that decision to the TBA, and that appeal is still pending. Because this appeal is ongoing, the outcome cannot be determined at this time. We have recently been awarded a second European patent with claims to telomerase peptides, and this patent has also been opposed by KAEL-GemVax. We cannot predict the outcome of this opposition or any subsequent appeal of the decision in the opposition.

European opposition and appeal proceedings can take several years to reach final decision. The oppositions discussed above reflect the complexity of the patent landscape in which we operate, and illustrate the risks and uncertainties. We are also currently involved in other patent opposition proceedings in Europe and Australia.

Patent opposition proceedings are not currently available in the U.S. patent system, but legislation has been proposed to introduce them. However, issued U.S. patents can be reexamined by the Patent Office at the request of a third party. Patents owned or licensed by Geron may therefore be subject to reexamination. As in any legal proceeding, the outcome of patent reexaminations is uncertain, and a decision adverse to our interests could result in the loss of valuable patent rights.

In July 2006, requests were filed on behalf of the Foundation for Taxpayer and Consumer Rights (now renamed as "Consumer Watchdog") for reexamination of three issued U.S. patents owned by WARF and relating to hESCs. These three patents (U.S. Patent Nos. 5,843,780, 6,200,806 and 7,029,913), which are the U.S. equivalents of the European WARF case discussed above, are licensed to Geron pursuant to a January 2002 license agreement with WARF. The license agreement conveys exclusive rights to Geron under the WARF patents for the development and commercialization of therapeutics based on neural cells, cardiomyocytes and pancreatic islet cells, derived from hESCs, as well as non-exclusive rights for other product opportunities. In October 2006, the Patent Office initiated the reexamination proceedings. After initially rejecting the patent claims, the Patent Office issued decisions in all three cases upholding the patentability of the claims as amended. The decisions to uphold the 5,843,780 and 6,200,806 patents are final and not subject to further appeal. Consumer Watchdog appealed the decision on the 7,029,913 patent. In April 2010, the Board of Patent Appeals and Interferences reversed the earlier decision of the Patent Office on the 7,029,913 patent. WARF will now have the opportunity to present amended claims for further examination at the Patent Office. We cooperated with WARF in these reexamination actions and expect that WARF will continue to vigorously defend its patent position. The final outcome of these or of any future reexamination proceedings cannot be determined at this time. Reduction or loss of claim scope in these WARF embryonic stem cell patents could negatively impact Geron's proprietary position in this technology.

As more groups become engaged in scientific research and product development in the areas of telomerase biology, receptor-targeting peptides that cross the BBB and embryonic stem cells, the risk of our patents being challenged through patent interferences, oppositions, reexaminations, litigation or other means will likely increase. Challenges to our patents through these procedures can be extremely expensive and time-consuming, even if the outcome is favorable to us. An adverse outcome in a patent dispute could severely harm our business by:

- causing us to lose patent rights in the relevant jurisdiction(s);
- subjecting us to litigation, or otherwise preventing us from commercializing potential products in the relevant jurisdiction(s);
- requiring us to obtain licenses to the disputed patents;
- forcing us to cease using the disputed technology; or
- requiring us to develop or obtain alternative technologies.

Furthermore, if such 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.

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 several critical technologies that are based in part on patents licensed from third parties, including the rights we licensed from Angiochem in connection with our exclusive worldwide license we entered into in December 2010. 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 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 prevents 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 programs. In the event our technologies infringe 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 have obtained licenses from several universities and companies for technologies that we anticipate incorporating into our potential products, and we initiate negotiation for licenses to other technologies as the need or opportunity arises. We may not be able to obtain a license to patented technology on commercially favorable terms, or at all. If we do not obtain a necessary license, we may need to redesign our technologies or obtain rights to alternate technologies, the research and adoption of which could cause delays in product development. In cases where we are unable to license

necessary technologies, we could be prevented from developing certain potential products. Our failure to obtain alternative technologies or a license to any technology that we may require to research, 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 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.

RISKS RELATED TO OUR RELATIONSHIPS WITH THIRD PARTIES

We depend on other parties to help us develop, manufacture and test our product candidates, and our ability to develop and commercialize potential 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. By way of examples: Merck is developing cancer vaccines targeted to telomerase other than dendritic cell-based vaccines; Sienna is developing cancer diagnostics using our telomerase technology; and GE Healthcare UK Limited is developing cell-based assays using cells derived from our hESCs. 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 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 other parties, we may rely significantly on them to, among other activities:

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

The development and commercialization of potential products will be delayed if collaborators or other partners 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.

We also rely on other companies for certain process development, manufacturing or other technical scientific work, especially with respect to our imetelstat, GRN1005 (formerly ANG1005), GRNVAC1, GRNOPC1 and GRNCM1 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 these companies do not perform the work which they were assigned, our ability to develop or manufacture our product candidates could be significantly harmed.

Our reliance on the activities of our consultants, research institutions, and scientific contractors, whose activities are not wholly within our control, may lead to delays in development of our product candidates.

We rely extensively upon and have relationships with scientific consultants at academic and other institutions, some of whom conduct research at our request, and other consultants who assist us in formulating our research and development and clinical strategy or other matters. These consultants 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 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 noncommercial entities. We have limited control over the operations of these laboratories and can expect only limited amounts of their time to be dedicated to our research goals.

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 and develop our product candidates could be significantly harmed.

RISKS RELATED TO COMPETITIVE FACTORS

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. We face intense competition for qualified individuals from numerous pharmaceutical, biopharmaceutical and biotechnology companies, as well as academic and other research institutions. We may be unable to retain our current personnel or attract or assimilate other highly qualified management and scientific personnel in the future on acceptable terms. 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.

Our product candidates 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.

Our telomerase inhibitor compound, imetelstat, our telomerase cancer vaccine, GRNVAC1, and our hESC-based products are likely to be more expensive to manufacture than most other treatments currently on the market today, and the same is likely to be true of peptide products able to cross the BBB, including GRN1005 (formerly ANG1005). Oligonucleotides are relatively large molecules with complex chemistry, and the cost of manufacturing an oligonucleotide like imetelstat is greater than the cost of making most small-molecule drugs. Our present manufacturing processes are conducted at a modest scale and we hope to substantially reduce manufacturing costs through process improvements, as well as through scale increases. If we are not able to do so, however, and, depending on the pricing of the potential product, the profit margin on the telomerase inhibitor may be significantly less than that of most drugs on the market today.

GRNVAC1 is an autologous therapy that is produced from a patient's blood using a unique process that generates highly activated dendritic cells that contain RNA coding for the protein component of telomerase. If we are unable to scalably produce dendritic cells at a lower manufacturing cost, the cost of GRNVAC1 may reduce the affordability of the therapy for patients and reduce our potential profitability.

GRN1005 (formerly ANG1005) is a novel taxane derivative that is designed to cross the BBB by receptor-mediated transcytosis. The present manufacturing processes for GRN1005 (formerly ANG1005) are conducted at a small scale and we hope to substantially reduce manufacturing costs through process improvements, as well as through scale increases. If we are not able to do so, however, and, depending on the pricing of the potential product, the profit margin on GRN1005 (formerly ANG1005) may be significantly less than that of most drugs on the market today.

Our manufacturing processes for differentiated cells from hESCs are conducted at a small scale and at a high cost per unit 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 it is safe and effective, to make a profit. If we are unable to realize significant profits from our potential product candidates, our business would 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. 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 human embryonic stem cell therapies, including the study of telomeres, telomerase, receptor-targeting peptides crossing the BBB and hESCs. 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 developing alternative therapies to treat cancer and, in this regard, are competitors of ours. According to public data from the FDA and NIH, there are more than 200 approved anti-cancer products on the market in the United States, and several thousand in clinical development.

Many of the pharmaceutical companies developing and marketing these competing products (including GlaxoSmithKline, Bristol-Myers Squibb Company and Novartis AG, among others) have significantly greater financial resources and expertise than we do in:

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

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:

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

As a result of the foregoing, our competitors may develop more effective or more affordable products, or achieve earlier patent protection or product commercialization than we do. Most significantly, competitive products may render any product candidates that we develop obsolete, which would negatively impact our business and ability to sustain operations.

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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 collaborators, if approved for marketing, may not achieve market acceptance since hospitals, physicians, patients or the medical community in general may decide not to accept and utilize these products. The product candidates that we are attempting to develop represent substantial departures from

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established treatment methods and will compete with a number of conventional drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of any of our developed potential products will depend on a number of factors, including:

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

If the health care community does not accept our potential 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. In March 2010, President Obama signed the Patient Protection and Affordability Care Act, as amended by the Health Care and Education Affordability Reconciliation Act (collectively, the PPACA) into law. Focused on expanding healthcare coverage to millions of uninsured Americans and reducing the rate of increase in healthcare costs, the PPACA contains numerous initiatives that impact the pharmaceutical industry. These include, among other things:

- increasing existing price rebates in federally funded health care programs;
- expanding rebates, or other pharmaceutical company discounts, into new programs;
- imposing a new non-deductible excise tax on sales of certain prescription pharmaceutical products by prescription drug manufacturers and importers;
- reducing incentives for employer-sponsored health care;
- creating an independent commission to propose changes to Medicare with a particular focus on the cost of biopharmaceuticals in Medicare Part D;
- providing a government-run public option with biopharmaceutical price-setting capabilities;
- allowing the Secretary of Health and Human Services to negotiate drug prices within Medicare Part D directly with pharmaceutical manufacturers;
- reducing the number of years of data exclusivity for innovative biological products potentially leading to earlier biosimilar competition; and
- increasing oversight by the FDA of pharmaceutical research and development processes and commercialization tactics.

While the PPACA may increase the number of patients who have insurance coverage for our product candidates, its cost containment measures could also adversely affect reimbursement for our potential products. Cost control initiatives could decrease the price that we receive for any product candidate we may develop in the future. If our potential 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 for potential products currently in development, which could have an adverse impact on our business.

RISKS RELATED TO ENVIRONMENTAL AND PRODUCT LIABILITY

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 clean up, 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, which would adversely affect 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 potential products is alleged to have injured subjects or patients. This risk exists for product candidates tested in human clinical trials as well as potential products that are sold commercially. We currently have limited clinical trial liability insurance and we may not be able to maintain this type of insurance for any of our clinical trials. In addition, product liability insurance is becoming increasingly expensive. Being unable to obtain or maintain product liability insurance in the future on acceptable terms or with adequate coverage against potential liabilities could have a material adverse effect on our business.

RISKS RELATED TO OUR COMMON STOCK AND FINANCIAL REPORTING

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 1, 2000 and December 3, 2010, our stock has traded as high as \$75.88 per share and as low as \$1.41 per share. Between January 1, 2007 and December 3, 2010, the price has ranged between a high of \$9.85 per share and a low of \$1.95 per share. The significant market price fluctuations of our common stock are due to a variety of factors, including:

- the demand in the market for our common stock;
- the experimental nature of our product candidates;
- fluctuations in our operating results;

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- market conditions relating to the biopharmaceutical and pharmaceutical industries;
- announcements of technological innovations, new commercial products, or clinical progress or lack thereof by us, our collaborative partners or our competitors;

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- announcements concerning regulatory developments, developments with respect to proprietary rights and our collaborations;
- comments by securities analysts;
- general market conditions;
- political developments related to hESC research;
- public concern with respect to our product candidates; and
- the issuance of common stock to partners, vendors or to investors to raise additional capital.

In addition, the stock market is subject to other factors outside our control that can cause extreme price and volume fluctuations. In the third and fourth quarters of 2008, as well as during 2009, broad distress in the financial markets and the economy have resulted in greatly increased market uncertainty and instability in both U.S. and international capital and credit markets. These conditions, combined with volatile oil prices, declining business and consumer confidence and increased unemployment have recently contributed to substantial market volatility, and if such market conditions persist, the price of our common stock may fluctuate or decline. 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 of our common stock.

The sale of a 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 of our common stock. As of December 3, 2010, we had 200,000,000 shares of common stock authorized for issuance and 102,591,508 shares of common stock outstanding. We have agreed to issue \$27.5 million of shares of our common stock, subject to a maximum of 9,000,000 shares, on or about January 5, 2011, to Angiochem as partial consideration for the rights we licensed from Angiochem pursuant to the exclusive license agreement we entered into in December 2010. Assuming an offering of 10,000,000 shares by us in this offering and the assumed issuance of 9,000,000 shares to Angiochem, which represents the maximum number of shares that we will issue to Angiochem on or about January 5, 2011, we would have 121,591,508 shares of common stock outstanding. In addition, as of December 3, 2010, we have reserved for future issuance approximately 22,323,192 shares of common stock for our stock plans, potential milestone payments and outstanding warrants.

In addition, we have issued common stock to certain parties, such as vendors and service providers, as payment for products and services. Under these arrangements, we typically agree to register the shares for resale soon after their issuance. We may continue to pay for certain goods and services in this manner, which would dilute your interest in us. We are also required to file with the SEC a registration statement within five business days from the issuance of the shares of our common stock to Angiochem to register such shares for resale, which will be freely tradeable following such registration. Sales of the shares issued to vendors and service providers and the shares issued to Angiochem could negatively affect the market price of our common stock.

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

If you purchase shares of common stock in this offering, you will experience immediate dilution in your investment. You will experience further dilution if we issue additional equity securities in future fundraising transactions.

Purchasers of common stock in this offering will pay a price per share in this offering that exceeds the net tangible book value per share of our common stock. Assuming we sell 10,000,000 shares of our common stock in this offering at an assumed public offering price of \$6.01 per share (the last reported sale price of our common stock as reported on The NASDAQ Global Market on December 3, 2010), and after deducting

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the estimated underwriting discounts and commissions and estimated offering expenses payable by us, the assumed issuance of 9,000,000 shares of our common stock to Angiochem, which represents the maximum number of shares that we will issue to them pursuant to a stock

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purchase agreement to be entered into on or about January 5, 2011, you will experience immediate dilution of \$4.34 per share, representing the difference between our pro forma as adjusted net tangible book value per share as of September 30, 2010. See the section entitled "Dilution" below for a more detailed illustration of the dilution you would incur if you purchase common stock in this offering.

If we issue additional common stock, or securities convertible into or exchangeable or exercisable for common stock, our stockholders, including investors who purchase shares of common stock in this offering, will experience additional dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders.

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 holders of our 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 or alter the rights, preferences, privileges and restrictions granted to or imported upon these shares without further vote or action by our 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 in one or more classes or series. 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 us 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:

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

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

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.

Failure to achieve and maintain effective internal controls in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on our business and stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 (the Sarbanes-Oxley Act) requires that we establish and maintain an adequate internal control structure and procedures for financial reporting. Our annual report on Form 10-K must contain an assessment by management of the effectiveness of our internal control over financial reporting and must include disclosure of any material weaknesses in internal control over financial reporting that we have identified. In addition, our independent registered public accounting firm must annually provide an opinion on the effectiveness of our internal control over financial reporting.

The requirements of Section 404 of the Sarbanes-Oxley Act are ongoing and also apply to future years. We expect that our internal control over financial reporting will continue to evolve as our business develops. Although we are committed to continue to improve our internal control processes and we will continue to diligently and vigorously review our internal control over financial reporting in order to ensure compliance with Section 404 requirements, any control system, regardless of how well designed, operated and evaluated, can provide only reasonable, not absolute, assurance that its objectives will be met. Therefore, we cannot be certain that in the future material weaknesses or significant deficiencies will not exist or otherwise be discovered. If material weaknesses or other significant deficiencies occur, these weaknesses or deficiencies could result in misstatements of our results of operations, restatements of our consolidated financial statements, a decline in our stock price, or other material adverse effects on our business, reputation, results of operations, financial condition or liquidity.

USE OF PROCEEDS

We estimate that the net proceeds we will receive from the sale of 10,000,000 shares of our common stock assumed in this offering will be approximately \$56.0 million (or approximately \$64.5 million if the underwriters' over-allotment option is exercised in full), assuming a public offering price of \$6.01 per share (the last reported sale price of our common stock as reported on The NASDAQ Global Market on December 3, 2010), after deducting the estimated underwriting discount and commissions and estimated offering expenses. Each \$0.50 increase (decrease) in the assumed public offering price of \$6.01 per share would increase (decrease) the net proceeds to us from this offering by approximately \$4.7 million, assuming the number of shares offered by us, as set forth above, remains the same. We may also increase or decrease the number of shares we are offering from the assumed number of shares set forth above. Each increase (decrease) of 1,000,000 shares in the number of shares offered by us from the assumed number of shares set forth above would increase (decrease) the net proceeds to us from this offering by approximately \$5.6 million, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We do not expect that a change in the public offering price or the number of shares by these amounts would have a material effect on our uses of the net proceeds from this offering, although it may impact the amount of time prior to which we will need to seek additional capital.

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:

- research and development, including clinical trials for our product candidates;
- clinical development of product candidates we have in-licensed; and
- 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.

SUMMARY CONSOLIDATED FINANCIAL DATA

The tables below present our summary consolidated statements of operations and balance sheet data. We have derived our consolidated statements of operations data for the years ended December 31, 2007, 2008 and 2009 from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2009 and incorporated by reference in this prospectus supplement and the accompanying prospectus. We have derived our condensed consolidated balance sheet data as of September 30, 2010 and consolidated statements of operations data for each of the nine months ended September 30, 2009 and 2010 from our unaudited condensed consolidated financial statements included in our quarterly report on Form 10-Q for the quarter ended September 30, 2010 and incorporated by reference in this prospectus supplement and the accompanying prospectus. The unaudited condensed consolidated financial statements include, in our opinion, all adjustments (consisting only of normal recurring accruals) considered necessary for a fair presentation of our financial position and results of operations for these periods. Operating results for the nine months ended September 30, 2010 are not necessarily indicative of the results that may be expected for the fiscal year ending December 31, 2010 or any other period. You should read the summary consolidated financial data set forth below in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and with our consolidated financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus.

| Consolidated statements of operations data: (In thousands, except share and per share data) | Year Ended December 31, | | | Nine Months Ended September 30, | |
|--|-------------------------|-------------|-------------|------------------------------------|-------------|
| | 2007 | 2008 | 2009 | 2009 Unaudited | 2010 |
| Revenues from collaborative agreements | \$ 672 | \$ 294 | \$ 450 | \$ 225 | \$ 653 |
| License fees and royalties | 6,950 | 2,509 | 1,276 | 896 | 1,812 |
| Total revenues | 7,622 | 2,803 | 1,726 | 1,121 | 2,465 |
| Operating expenses: | | | | | |
| Research and development | 54,624 | 53,664 | 57,617 | 42,278 | 40,662 |
| General and administrative | 15,837 | 16,183 | 14,343 | 10,705 | 13,359 |
| Total operating expenses | 70,461 | 69,847 | 71,960 | 52,983 | 54,021 |
| Loss from operations | (62,839) | (67,044) | (70,234) | (51,862) | (51,556) |
| Unrealized gain (loss) on derivatives, net | 15,453 | 418 | 157 | (287) | 133 |
| Interest and other income | 10,791 | 5,542 | 1,374 | 1,128 | 619 |
| Losses recognized under equity method investment | — | (844) | (1,338) | (656) | (1,135) |
| Interest and other expense | (102) | (93) | (143) | (116) | (76) |
| Net loss | (36,697) | (62,021) | (70,184) | (51,793) | (52,015) |
| Deemed dividend on derivatives (1) | (9,081) | — | (190) | (190) | — |
| Net loss applicable to common stockholders | \$ (45,778) | \$ (62,021) | \$ (70,374) | \$ (51,983) | \$ (52,015) |
| Basic and diluted net loss per share: | | | | | |
| Net loss per share applicable to common stockholders | \$ (0.62) | \$ (0.79) | \$ (0.80) | \$ (0.59) | \$ (0.54) |
| Shares used in computing net loss per share applicable to common stockholders | 74,206,249 | 78,187,795 | 88,078,557 | 87,370,361 | 96,400,276 |

- (1) In April 2009 in connection with our continued collaboration with an investor and licensee and the data received under the collaboration relevant to Geron's therapeutic programs, we modified the terms of certain outstanding warrants held by this investor by extending the exercise term and reducing the exercise price. The exercise term of warrants to purchase 200,000 shares of common stock was extended to March 9, 2012 from March 9, 2010 and the exercise price was modified to \$17.50 per share from \$67.09 per share. The exercise term of warrants to purchase 100,000 shares of common stock was extended to March 9, 2012 from March 9, 2010 and the exercise price was

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unchanged at \$12.50 per share. In connection with the modifications, we recognized a deemed dividend of approximately \$190,000 in our consolidated statements of operations for the incremental fair value of the modified warrants.

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In February 2007 in exchange for the exercise of certain warrants, we issued new warrants to the same institutional investors. The aggregate fair value of \$3.7 million for the new warrants was recognized as a deemed dividend. In December 2007, we modified the terms of certain outstanding warrants by extending the exercise term and reducing the exercise price. In connection with the modifications, we received \$3.6 million in cash consideration from the institutional investors holding the outstanding warrants. We recognized a deemed dividend of \$5.4 million for the incremental fair value of the modified warrants, net of the cash consideration received from the institutional investors for the modifications.

The table below presents our condensed consolidated balance sheet data as of September 30, 2010:

- on an actual basis;
- on a pro forma basis to give effect to the consideration for the rights we licensed from Angiochem pursuant to the exclusive license agreement we entered into on December 6, 2010, including payment of \$7.5 million in cash and the assumed issuance of 9,000,000 shares of our common stock to Angiochem, which represents the maximum number of shares that we will issue to them pursuant to a stock purchase agreement to be entered into on or about January 5, 2011, and reflects the preliminary accounting impact of the acquired in-process research and development in connection with the rights we licensed under the exclusive license agreement with Angiochem effective December 6, 2010; and
- on a pro forma as adjusted basis to give further effect to the sale of 10,000,000 shares of common stock assumed in this offering at the assumed public offering price of \$6.01 per share (the last reported sale price of our common stock as reported on The NASDAQ Global Market on December 3, 2010) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

| Condensed consolidated balance sheet data: (In thousands) | As of September 30, 2010 | | |
|---|--------------------------|--------------|-------------------------------|
| | Actual | Pro Forma | Pro Forma, As Adjusted (1) |
| Cash, cash equivalents, restricted cash and marketable securities | \$ 146,194 | \$ 138,694 | \$ 194,688 |
| Total current assets | 137,474 | 129,974 | 185,968 |
| Total assets | 162,295 | 154,795 | 210,789 |
| Working capital | 129,849 | 122,349 | 178,343 |
| Total current liabilities | 7,625 | 7,625 | 7,625 |
| Total long-term liabilities | — | — | — |
| Total stockholders' equity | 154,670 | 147,170 | 203,164 |

- (1) A \$0.50 increase (decrease) in the assumed public offering price of \$6.01 per share would increase (decrease) each of pro forma as adjusted cash, cash equivalents, restricted cash and marketable securities, total current assets, total assets, working capital and stockholders' equity by approximately \$4.7 million, assuming that the number of shares offered by us, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1,000,000 in the number of shares we are offering would increase (decrease) each of pro forma as adjusted cash, cash equivalents, restricted cash and marketable securities, total current assets, total assets, working capital and stockholders' equity by approximately \$5.6 million, assuming the public offering price per share remains the same. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at pricing.

DILUTION

If you invest in our common stock, you will experience dilution to the extent of the difference between the public offering price per share of our common stock you pay in this offering and the net tangible book value per share of our common stock after this offering.

Our net tangible book value as of September 30, 2010 was \$154.7 million, or approximately \$1.51 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. Our pro forma net tangible book value at September 30, 2010, before giving effect to this offering, was \$147.2 million, or \$ 1.32 per share. Pro forma net tangible book value, before the issuance and sale of shares in this offering, gives effect to the payment of \$7.5 million in cash and the assumed issuance of 9,000,000 shares of our common stock to Angiochem, which represents the maximum number of shares that we will issue to them pursuant to a stock purchase agreement to be entered into on or about January 5, 2011, as consideration for the rights we licensed from Angiochem pursuant to the exclusive license agreement we entered into on December 6, 2010.

Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this public offering and the net tangible book value per share of our common stock immediately after completion of this public offering. After giving effect to the payment of \$7.5 million in cash, the assumed issuance of 9,000,000 shares of common stock to Angiochem, which represents the maximum number of shares that we will issue to Angiochem, and our sale of 10,000,000 shares of our common stock assumed in this public offering at the assumed price per share paid by purchasers in this public offering of \$6.01 per share (the last reported sale price of our common stock as reported on The NASDAQ Global Market on December 3, 2010) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of September 30, 2010 would have been approximately \$203.2 million, or \$1.67 per share. This represents an immediate increase in net tangible book value of \$0.35 per share to existing stockholders compared to pro forma net tangible book value per share and an immediate dilution in net tangible book value of \$4.34 per share to new investors purchasing our common stock in this public offering at the assumed public offering price. The following table illustrates this dilution on a per share basis (without giving effect to the over-allotment option granted to the underwriters):

| | | |
|--|----|--------|
| Assumed public offering price per share (the closing price of our common stock on December 3, 2010) | \$ | 6.01 |
| Net tangible book value per share as of September 30, 2010 | \$ | 1.51 |
| Decrease attributable to the pro forma adjustment described above | | (0.19) |
| Pro forma net tangible book value per share as of September 30, 2010 | | 1.32 |
| Increase in pro forma net tangible book value per share attributable to this offering | | 0.35 |
| Pro forma as adjusted net tangible book value per share as of September 30, 2010 after giving effect to this offering | | 1.67 |
| Dilution per share to investors in this offering | \$ | 4.34 |

Each \$0.50 increase (decrease) in the assumed public offering price of \$6.01 per share would increase (decrease) our pro forma as adjusted net tangible book value after this offering by approximately \$4.7 million, or approximately \$0.04 per share, and the dilution per share to new investors by approximately \$0.46 per share, assuming that the number of shares offered by us, as set forth above, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering from the assumed number of shares set forth above. An increase of 1,000,000 shares in the number of shares offered by us from the assumed number of shares set forth above would increase our pro forma as adjusted net tangible book value after this offering by approximately \$5.6 million, or \$0.03 per share, and the dilution per share to new investors would be \$4.31 per share, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a decrease of 1,000,000 shares in the number of shares offered by us from the assumed number of shares set forth above would decrease our pro forma as adjusted net tangible book value after this offering by approximately \$5.6 million, or \$0.03 per share, and the dilution per share to new investors would be \$4.37 per share, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. The information discussed above is illustrative only and will adjust based on the actual public offering price, the actual number of shares that we offer in this offering, and other terms of this offering determined at pricing.

If the underwriters exercise in full their over-allotment option to purchase an additional 15% of the shares of common stock offered in this offering at the assumed offering price of \$6.01 per share, or 1,500,000 shares assuming we offer 10,000,000 shares of our common stock in this offering, the pro forma as adjusted net tangible book value after this offering would be \$1.72 per share, representing an increase in net tangible book value of \$0.40 per share to existing stockholders compared to pro forma net tangible book value per share and immediate dilution in net tangible book value of \$4.29 per share to new investors purchasing our common stock in this offering at the assumed public offering price.

The number of shares of our common stock outstanding in the computations above excludes:

- 12,925,086 shares of our common stock issuable upon exercise of options outstanding as of September 30, 2010, having a weighted average exercise price of \$6.68 per share;
- 2,751,397 shares of our common stock issuable upon exercise of warrants outstanding as of September 30, 2010 at a weighted average price of \$7.68 per share;
- an aggregate of 5,523,687 shares of our common stock reserved for future issuance under our 2002 Equity Incentive Plan and our 2006 Directors' Stock Option Plan as of September 30, 2010; and
- 605,585 shares of our common stock reserved for future issuance under our 1996 Employee Stock Purchase Plan as of September 30, 2010.

The number of shares of our common stock outstanding in the computations above includes 4,766,422 shares of our common stock for unvested restricted stock awards outstanding as of September 30, 2010.

To the extent we issue less than 9,000,000 shares of our common stock to Angiochem, you will experience less dilution. To the extent outstanding options or warrants are exercised, you will experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

CAPITALIZATION

The following table sets forth our unaudited cash, cash equivalents, restricted cash and marketable securities and capitalization as of September 30, 2010:

- on an actual basis;
- on a pro forma basis to give effect to the consideration for the rights we licensed from Angiochem pursuant to the exclusive license agreement we entered into on December 6, 2010, including payment of \$7.5 million in cash and the assumed issuance of 9,000,000 shares of our common stock to Angiochem, which represents the maximum number of shares that we will issue to them pursuant to a stock purchase agreement to be entered into on or about January 5, 2011; and
- on a pro forma as adjusted basis to give effect to the issuance and sale of 10,000,000 shares of our common stock assumed in this public offering at an assumed public offering price of \$6.01 per share, after deducting underwriting discounts, commissions and our estimated offering expenses (assuming no exercise of the underwriters' over-allotment option to purchase additional shares).

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 from our Annual Report on Form 10-K for the year ended December 31, 2009 and the quarterly reports on Form 10-Q for the quarters ended March 31, 2010, June 30, 2010 and September 30, 2010 in this prospectus supplement and the accompanying prospectus. See "Where You Can Find More Information."

| | As of September 30, 2010 | | |
|--|--------------------------|------------|------------------------|
| | Actual | Pro Forma | Pro Forma, As Adjusted |
| (In thousands, except share and per share data) | | | |
| Cash, cash equivalents, restricted cash and marketable securities | \$ 146,194 | \$ 138,694 | \$ 194,688 |
| Total liabilities | \$ 7,625 | \$ 7,625 | \$ 7,625 |
| Stockholders' equity: | | | |
| Common stock, par value \$0.001 per share; 200,000,000 shares authorized; 102,590,381 shares issued and outstanding, actual; 111,590,381 shares issued and outstanding, pro forma; and 121,590,381 shares issued and outstanding, pro forma, as adjusted | 103 | 112 | 122 |
| Additional paid-in capital | 783,865 | 811,356 | 867,340 |
| Accumulated deficit | (629,282) | (664,282) | (664,282) |
| Accumulated other comprehensive loss | (16) | (16) | (16) |
| Total stockholders' equity | 154,670 | 147,170 | 203,164 |
| Total capitalization | \$ 162,295 | \$ 154,795 | \$ 210,789 |

The number of shares of our common stock in the actual, pro forma and pro forma as adjusted columns in the table above excludes the following:

- 12,925,086 shares of our common stock issuable upon exercise of outstanding options granted under our stock option plans at a weighted average exercise price of \$6.68 per share as of September 30, 2010;
- 2,751,397 shares of our common stock issuable upon exercise of outstanding warrants at a weighted average price of \$7.68 per share as of September 30, 2010;

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- an aggregate of 5,523,687 shares of our common stock reserved for future issuance under our 2002 Equity Incentive Plan and our 2006 Directors' Stock Option Plan as of September 30, 2010; and
- 605,585 shares of our common stock reserved for future issuance under our 1996 Employee Stock Purchase Plan as of September 30, 2010.

The number of shares of our common stock in the actual, pro forma and pro forma as adjusted columns in the table above includes 4,766,422 shares of our common stock for unvested restricted stock awards outstanding as of September 30, 2010. The accumulated deficit in the pro forma and pro forma as adjusted columns reflects the preliminary accounting impact of the acquired in-process research and development in connection with the rights we licensed under the exclusive license agreement with Angiochem effective December 6, 2010.

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UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus supplement, J.P. Morgan Securities LLC and Lazard Capital Markets LLC are acting as joint book-running managers for the offering, and each has severally agreed to purchase, and we have agreed to sell to them, the number of shares of our common stock, at the public offering price, less the underwriting discounts and commissions, as set forth on the cover page of this prospectus supplement as indicated below:

| Underwriters | Number of Shares |
|----------------------------|---------------------|
| J.P. Morgan Securities LLC | |
| Lazard Capital Markets LLC | |
| Total | |

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to certain conditions precedent, including the absence of any material adverse change in the business and the receipt of customary legal opinions, letters and certificates and the approval of certain legal matters by their counsel and to other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus supplement if any such shares of common stock are taken.

The underwriters have an option to buy up to additional shares of common stock from us to cover sales of shares of common stock by the underwriters which exceed the number of shares specified in the table above. The underwriters may exercise this option at any time and from time to time during the 30-day period from the date of this prospectus supplement. If any additional shares of common stock are purchased, the underwriters will offer the additional shares of common stock on the same terms as those on which the shares are being offered.

The underwriters initially propose to offer the shares of common stock directly to the public at the public offering price listed on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ per share. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the underwriters. Sales of common stock outside the United States may be made by affiliates of the underwriters.

Commissions and Discounts

The following table summarizes the public offering price, underwriting discount and proceeds before expenses to us assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of common stock:

| | Per Share | Total Without Over- Allotment | With Over- Allotment |
|----------------------------------|-----------|--|----------------------------|
| Public offering price | \$ | \$ | \$ |
| Underwriting discount | | | |
| Proceeds, before expenses, to us | | | |

The expenses of the offering, not including the underwriting discount and commissions, payable by us are estimated to be \$500,000.

The relationship between Lazard Frères & Co. LLC and Lazard Capital Markets LLC is governed by a business alliance agreement between their respective parent companies. Pursuant to such agreement, Lazard Frères & Co. LLC referred this offering to Lazard Capital Markets LLC and will receive a referral fee from Lazard Capital Markets LLC in connection therewith; however, such referral fee is not in addition to the fee paid by us to Lazard Capital Markets LLC described above.

Quotation on the NASDAQ Global Market

Our common stock is listed on The NASDAQ Global Market under the symbol “GERN.” Our registrar and transfer agent for our common stock is Computershare Trust Company, N.A.

Indemnification

We and the underwriters have agreed to indemnify each other, and we have also agreed to indemnify Lazard Frères & Co. LLC, against certain liabilities, including liabilities under the Securities Act and liabilities arising from breaches of representations and warranties contained in the underwriting agreement. We have also agreed to contribute to payments the underwriters and Lazard Frères & Co. LLC may be required to make in respect of such liabilities.

No Sales of Similar Securities

We and each of our executive officers and directors have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our shares of common stock or securities convertible into or exercisable or exchangeable for our common stock for sixty (60) days after the date of this prospectus supplement without first obtaining the written consent of the underwriters. The 60-day “lock-up” period during which we and our executive officers and directors are restricted from engaging in transactions in our common stock or securities convertible into or exercisable or exchangeable for our common stock is subject to extension in the event that either (i) during the last 17 days of the “lockup” period, we issue an earnings or financial results release or material news or a material event relating to us occurs, or (ii) prior to the expiration of the “lock-up” period, we announce that we will release earnings or financial results during the 16-day period beginning on the last day of the “lock-up” period, then in either case the expiration of the “lock-up” period will be extended until the expiration of the 18-day period beginning on the issuance of the earnings or financial results release or the occurrence of the material news or material event, as applicable, unless the underwriters waive, in writing, such an extension.

Angiochem has agreed with us not to dispose of the shares of common stock that we will issue to them, pursuant to a stock purchase agreement to be entered into on or about January 5, 2011, as partial consideration for the rights we licensed from them pursuant to the exclusive license agreement, or swap, hedge or sell short any shares of our common stock or securities convertible into or exercisable or exchangeable for our common stock until the later of: (a) the effectiveness of the registration statement on Form S-3 that we are obligated to file to register such shares for resale and (b) the expiration of the “lock-up” period that we and each of our executive officers and directors have agreed with the underwriters, including the extensions described in (i) and (ii) of the preceding paragraph, without our prior written consent (which will require the prior written consent of the underwriters).

Price Stabilization, Short Positions

In order to facilitate the offering of the shares of common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriters may sell more shares of common stock than they are obligated to purchase under the underwriting agreement, creating a short position. The underwriters must close out any short position by purchasing shares of common stock in the open market. A short position may be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchased in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of our common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of our common stock above independent market levels or prevent or slow a decline in the market price of our common stock. The underwriters are not required to engage in these activities, and may end any of these activities at any time.

A prospectus in electronic format may be made available on websites maintained by the underwriters. Internet distributions will be allocated by each underwriter on the same basis as other allocations.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations

of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

United Kingdom

This document is only being distributed to and is only directed at (i) persons who are outside the United Kingdom or (ii) to investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the “Order”) or (iii) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). The shares of common stock are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire such shares of common stock will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this document or any of its contents.

European Economic Area

To the extent that the offer of the shares of common stock are made in any Member State of the European Economic Area that has implemented the Prospectus Directive before the date of publication of a prospectus in relation to the shares of common stock which has been approved by the competent authority in the Member State in accordance with the Prospectus Directive (or, where appropriate, published in accordance with the Prospectus Directive and notified to the competent authority in the Member State in accordance with the Prospectus Directive), the offer (including any offer pursuant to this document) is only addressed to qualified investors in that Member State within the meaning of the Prospectus Directive or has been or will be made otherwise in circumstances that do not require us to publish a prospectus pursuant to the Prospectus Directive.

In relation to each Member State of the European Economic Area¹ which has implemented the Prospectus Directive (each, a “Relevant Member State”), from and including the date on which the European Union Prospectus Directive (the “EU Prospectus Directive”) is implemented in that Relevant Member State (the “Relevant Implementation Date”) an offer of securities described in this prospectus may not be made to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the EU Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

- (a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities,
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts, or
- (c) in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive. For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

¹ The EU plus Ireland, Norway and Liechtenstein.

The EEA selling restriction is in addition to any other selling restrictions set out below. In relation to each Relevant Member State, each purchaser of shares of common stock (other than the underwriters) will be deemed to have represented, acknowledged and agreed that it will not make an offer of shares of common stock to the public in any Relevant Member State, except that it may, with effect from and including the date on which the Prospectus Directive is implemented in the Relevant Member State, make an offer of shares of common stock to the public in that Relevant Member State at any time in any circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive, provided that such purchaser agrees that it has not and will not make an offer of any shares of common stock in reliance or purported reliance on Article 3(2)(b) of the Prospectus Directive. For the purposes of this provision, the expression an “offer of Shares to the public” in relation to any shares of common stock in any Relevant Member State has the same meaning as in the preceding paragraph.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

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MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of material United States federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all of the potential United States federal income tax consequences relating thereto, nor does it address any tax consequences arising under any state, local or foreign tax laws, the United States federal estate tax or gift tax rules or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended (the Code), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service (IRS), all as in effect as of the date of this offering. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder’s particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation, United States expatriates and former permanent residents of the United States, partnerships or other pass-through entities, real estate investment trusts, regulated investment companies, “controlled foreign corporations,” “passive foreign investment companies,” corporations that accumulate earnings to avoid United States federal income tax, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-exempt organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax, persons that own, or have owned, actually or constructively, more than 5% of our common stock, and persons holding our common stock as part of a hedge, straddle or other risk-reduction strategy or as part of a conversion transaction or other integrated investment and persons deemed to sell our common stock under the constructive sale provisions of the Code.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR NON-UNITED STATES TAX LAWS, THE UNITED STATES FEDERAL ESTATE OR GIFT TAX RULES, ANY OTHER UNITED STATES FEDERAL TAX LAWS AND ANY APPLICABLE TAX TREATY.

Definition of Non-U.S. Holder

For purposes of this discussion, a “non-U.S. holder” is any beneficial owner of our common stock that is neither a “U.S. person” (as defined below) nor a partnership (or other entity treated as a partnership) for United States federal income tax purposes. A “U.S. person” is any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to United States federal income taxation regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a United States court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

If a partnership (or other entity treated as a partnership for United States federal income tax purposes) is a beneficial owner of our common stock, the tax treatment of a partner in such partnership will depend on the status of such partner and the activities of such partnership. Such partners and partnerships should consult their tax advisors regarding the specific United States federal income tax consequences to them of acquiring, owning and disposing of our common stock.

Distributions on Our Common Stock

As stated above under “Dividend Policy,” we do not anticipate paying cash dividends in the foreseeable future. If, however, we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder’s adjusted tax basis in the common stock, but not below zero. Any excess will be treated as capital gain realized on the sale or other disposition of the common stock and will be treated as described under “—Gain on Sale or Disposition of Our Common Stock” below.

Dividends paid to a non-U.S. holder of our common stock generally will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form), certifying such holder’s qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but which qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder’s United States trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States), the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form), certifying that the dividends are effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States.

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder’s United States trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States) will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates generally in the same manner as if such holder were a U.S. person. A non-U.S. holder that is a corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

A non-U.S. holder that claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Sale or Disposition of Our Common Stock

A non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder’s conduct of a trade or business in the United States and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a “United States real property interest” by reason of our status as a United States real property holding corporation (USRPHC) for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder’s holding period for our common stock, and our common stock has ceased to be traded on an established securities market prior to the beginning of the calendar year in which the sale or other disposition occurs.

Unless an applicable income tax treaty provides otherwise, gain described in the first bullet point above will be subject to United States federal income tax in the same manner as if such non-U.S. holder were a U.S. person. A non-U.S. holder that is a corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable tax treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States source capital losses (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and we do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other business assets, however, there can be no assurance that we will not become a USRPHC in the future.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the amount of dividends on our common stock paid to such holder and the amount of any tax withheld with respect to those dividends. This information may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Under certain circumstances, the Code imposes a backup withholding obligation on certain reportable payments. Backup withholding generally will not apply, however, to distributions to a non-U.S. holder of our common stock provided the non-U.S. holder furnishes to us or our paying agent the required certification as to its status as a non-U.S. holder, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or otherwise establishes an exemption.

Information reporting and, depending on the circumstances, backup withholding will apply to the proceeds of a sale of our common stock within the United States or conducted through certain United States-related financial intermediaries, unless the beneficial owner certifies under penalty of perjury that it is a non-U.S. holder on Form W-8BEN or other applicable form (and the payor does not have actual knowledge or reason to know that the beneficial owner is a U.S. person) or such owner otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability, provided the required information is timely furnished to the IRS.

New Legislation Relating to Foreign Accounts

Newly enacted legislation may impose withholding taxes on certain types of payments made to "foreign financial institutions" (as specially defined under those rules) and certain other non-United States entities. Under this legislation, the failure to comply with additional certification, information reporting and other specified requirements could result in withholding tax being imposed on payments of dividends and sales proceeds to foreign intermediaries and certain non-U.S. holders. The legislation imposes a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution or to a foreign non-financial entity, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations or (ii) the foreign non-financial entity either certifies it does not have any substantial United States owners or furnishes identifying information regarding each substantial United States owner. If the payee is a foreign financial institution, it must enter into an agreement with the United States Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or United States-owned foreign entities, annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. The legislation would apply to payments made after December 31, 2012. Prospective investors should consult their tax advisors regarding this legislation.

LEGAL MATTERS

Latham & Watkins LLP, Menlo Park, California will pass upon the validity of the issuance and sale of the common stock offered by this prospectus supplement and the accompanying prospectus. Certain legal matters will be passed upon for the underwriters by Proskauer Rose LLP, New York, New York.

EXPERTS

The consolidated financial statements of Geron Corporation appearing in Geron Corporation's Annual Report (Form 10-K) for the year ended December 31, 2009 and the effectiveness of Geron Corporation's internal control over financial reporting as of December 31, 2009 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon included therein and incorporated herein by reference. Such consolidated financial statements and Geron Corporation management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2009 have been incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the Exchange Act) and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public over the Internet at the SEC's website at www.sec.gov. Our common stock is listed on The NASDAQ Global Market, and you can read and inspect our filings at the offices of The NASDAQ Stock Market at 1735 K Street, Washington, D.C. 20006. We maintain a website at www.geron.com. The information contained on our website is not incorporated by reference in this prospectus supplement and the accompanying prospectus and you should not consider it a part of this prospectus supplement and the accompanying prospectus.

You should rely only on the information contained in, and incorporated by reference in, this prospectus supplement and the registration statement. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of common stock.

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 or the accompanying prospectus. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying 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 information filed (rather than furnished) with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Exchange Act between the date of this prospectus supplement and the termination of the offering, provided, however, that we are not incorporating any information furnished under any of Item 2.02 or Item 7.01 of any current report on Form 8-K:

- our annual report on Form 10-K for the fiscal year ended December 31, 2009, filed with the SEC on February 26, 2010;
- the portions specifically incorporated by reference into our annual report on Form 10-K for the year ended December 31, 2009 from our definitive proxy statement on schedule 14A, filed with the SEC on March 29, 2010;
- our quarterly report on Form 10-Q for the quarter ended March 31, 2010, filed with the SEC on April 30, 2010;
- our quarterly report on Form 10-Q for the quarter ended June 30, 2010, filed with the SEC on July 30, 2010;
- our quarterly report on Form 10-Q for the quarter ended September 30, 2010, filed with the SEC on October 29, 2010;
- our current reports on Form 8-K filed with the SEC on January 15, 2010, March 19, 2010, March 26, 2010, May 20, 2010, May 21, 2010, July 15, 2010, July 30, 2010, September 16, 2010, October 12, 2010 and two current reports on December 6, 2010; and
- the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on June 13, 1996 (File No. 0-20859).

We will furnish without charge to you, upon 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.

PROSPECTUS

\$250,000,000

GERON CORPORATION

Debt Securities, Common Stock,
Preferred Stock and Warrants

We may from time to time sell any combination of debt securities, common stock, preferred stock and warrants described in this prospectus in one or more offerings. The aggregate initial offering price of all securities sold under this prospectus will not exceed \$250,000,000.

This prospectus provides a general description of the securities we may offer. Each time we sell securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement carefully before you invest in any securities. This prospectus may not be used to consummate a sale of securities unless accompanied by the applicable prospectus supplement.

We will sell these securities directly to our stockholders or to purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commissions or discounts.

Our common stock is traded on the Nasdaq Global Market under the symbol "GERN." On July 2, 2009, the closing price of our common stock was \$7.65.

Investing in our securities involves a high degree of risk. Risks associated with an investment in our securities will be described in the applicable prospectus supplement and certain of our filings with the Securities and Exchange Commission, as described in "Risk Factors" on page 1.

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 July 22, 2009.

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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 (the 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 \$250,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we sell securities under this shelf registration, 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 this prospectus, any prospectus supplement and any free writing prospectus prepared by us or on behalf of us together with additional information described under the heading “Where You Can Find More Information.”

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and the accompanying supplement to this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or the accompanying prospectus supplement. This prospectus and the accompanying supplement to this prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying supplement to this prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities sold on a later date.

ABOUT GERON

Geron is a biopharmaceutical company that is developing first-in-class therapeutic products for the treatment of cancer and chronic degenerative diseases, including spinal cord injury, heart failure and diabetes. We are advancing telomerase-targeted therapies, including an anti-cancer drug and a cancer vaccine, through multiple clinical trials. We believe we are also the world leader in the development of human embryonic stem cell (hESC)-based therapeutics. We have received FDA clearance to begin the world’s first human clinical trial of a hESC-based therapy: GRNOPC1 for acute spinal cord injury.

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.

RISK FACTORS

You should carefully consider the specific risks set forth under the caption “Risk Factors” in the applicable prospectus supplement and under the caption “Risk Factors” in our most recent Annual Report on Form 10-K and most recent Quarterly Report on Form 10-Q, filed with the Commission under the Securities Exchange Act of 1934, as amended (the Exchange Act), which are incorporated by reference herein, as the same may be updated from time to time by our future filings under the Exchange Act, before making an investment decision. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. For more information, see “Where You Can Find More Information.”

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, without limitation, risks related to the development and commercialization of Geron’s potential products, dependence on collaborative partners, need for additional capital, need

for regulatory approvals or clearances, the maintenance of Geron’s intellectual property rights and other risks that are described 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.

RATIO OF EARNINGS TO FIXED CHARGES

Our earnings are inadequate to cover fixed charges. The following table sets forth the dollar amount of the coverage deficiency (in thousands). We have not included a ratio of earnings to combined fixed charges and preferred stock dividends because we do not have any preferred stock outstanding.

| | Year Ended December 31, | | | | | Three Months Ended March 31, |
|---------------------------------------|-------------------------|------------|------------|------------|------------|------------------------------|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
| Ratio of earnings to fixed charges(1) | N/A | N/A | N/A | N/A | N/A | N/A |
| Coverage deficiency | \$(78,817) | \$(33,269) | \$(31,188) | \$(36,440) | \$(61,706) | \$(16,728) |

- (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 estimated 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.

USE OF PROCEEDS

Unless otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities under this prospectus 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. We will set forth in the prospectus supplement our intended use for the net proceeds received from the sale of any securities. Pending the application of the net proceeds, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing securities.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities (1) through underwriters or dealers, (2) through agents and/or (3) directly to one or more purchasers. We may distribute the securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- 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 in a prospectus supplement any agent involved in the offer or sale of our securities.

If we utilize a dealer in the sale of the securities being offered by this prospectus, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale.

If we utilize an underwriter in the sale of the securities being offered by this prospectus, we will execute an underwriting agreement with the underwriter at the time of sale and we will provide the name of any underwriter in the prospectus supplement that the underwriter 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

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underwriter may act as agent, may compensate the underwriter in the form of underwriting discounts or commissions. The underwriter may sell the securities to or through dealers, and the underwriter may compensate those dealers in the form of discounts, concessions or commissions.

We will provide in the applicable prospectus supplement any compensation we pay to underwriters, dealers or agents in connection with the offering of the securities, and any discounts, concessions or commissions allowed by underwriters to participating dealers. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended (the Securities Act), and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

The securities may or may not be listed on a national securities exchange. To facilitate the offering of securities, certain persons participating in the offering may engage in transactions that stabilize, maintain or otherwise affect the price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than we sold to them. In these circumstances, these persons would cover such over-allotments or short positions by making purchases in the open market or by exercising their over-allotment option. In addition, these persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to dealers participating in the offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. These transactions may be discontinued at any time.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business.

DESCRIPTION OF DEBT SECURITIES

The debt securities covered by this prospectus will be our convertible senior or subordinated debt securities issued under one or more separate senior or subordinated indentures to be entered into between us and a trustee to be identified in the applicable prospectus supplement. This prospectus, together with its prospectus supplement, will describe all the material terms of a particular series of debt securities.

The following is a summary of the most important provisions and definitions of the indentures. For additional information, you should look at the applicable indenture that is filed as an exhibit to the registration statement which includes the prospectus. The indentures are substantially identical except for the subordination provisions described below under "Subordinated Debt Securities." In this description of debt securities, the words "we", "us" or "our" refer only to Geron and not to any of our subsidiaries.

General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities we may issue under the indentures, though such amount shall be limited by the aggregate principal amount of securities that we may sell under this prospectus. The prospectus supplement will set forth:

- whether the debt securities will be senior or subordinated;
- the offering price;
- the title;
- any limit on the aggregate principal amount;
- the person who shall be entitled to receive interest, if other than the record holder on the record date;
- the date the principal will be payable;
- the interest rate, if any, the date interest will accrue, the interest payment dates and the regular record dates;

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- the place where payments may be made;
- any mandatory or optional redemption provisions;

- if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula;
- if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable and whether we or the holder may elect payment to be made in a different currency;
- the portion of the principal amount that will be payable upon acceleration of stated maturity, if other than the entire principal amount; if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount which will be deemed to be the principal amount;
- any defeasance provisions if different from those described below under “Satisfaction and Discharge; Defeasance”;
- any conversion or exchange provisions;
- any obligation to redeem or purchase the debt securities pursuant to a sinking fund;
- whether the debt securities will be issuable in the form of a global security;
- any subordination provisions, if different from those described below under “Subordinated Debt Securities”;
- any deletions of, or changes or additions to, the events of default or covenants; and
- any other specific terms of such debt securities.

Unless otherwise specified in the prospectus supplement:

- the debt securities will be registered debt securities; and
- registered debt securities denominated in U.S. dollars will be issued in denominations of \$1,000 or an integral multiple of \$1,000.

Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at the time of issuance is below market rates.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us.

We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any potential redemption of debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange, any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

We may initially appoint the trustee as the security registrar. Any transfer agent, in addition to the security registrar, initially designated by us will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

- be registered in the name of a depository that we will identify in a prospectus supplement;
- be deposited with the depository or nominee or custodian; and
- bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depositary or any nominee unless:

- the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary;
- we provide an officers' certificate to the effect that such global security shall be exchangeable;
- an event of default is continuing; or
- any other circumstances described in a prospectus supplement occurs.

As long as the depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indenture. Except in the above limited circumstances, owners of beneficial interests in a global security:

- will not be entitled to have the debt securities registered in their names;
- will not be entitled to physical delivery of certificated debt securities; and
- will not be considered to be holders of those debt securities under the indentures.

Payments on a global security will be made to the depositary or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depositary or its nominee are referred to as "participants." Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depositary, with respect to participants' interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depositary.

The depositary policies and procedures may change from time to time. Neither we nor the trustee will have any responsibility or liability for the depositary's or any participant's records with respect to beneficial interests in a global security.

Payment and Paying Agent

The provisions of this paragraph will apply to the debt securities unless otherwise indicated in the prospectus supplement. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The corporate trust office will be designated as our sole paying agent.

We may also name any other paying agents in the prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security which remain unclaimed at the end of two years after such payment was due will be repaid to us. Thereafter, the holder may look only to us for such payment unless an applicable abandoned property law designates another person.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease all or substantially all of our properties and assets, and we may not permit any person to merge into, or convey, transfer or lease its properties and assets substantially as an entirety to, us, unless:

- the successor, if any, is a U.S. corporation, partnership, trust or other entity;
- the successor expressly assumes our obligations on the debt securities and under the indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions are met.

Events of Default

Unless we inform you otherwise in the prospectus supplement, the indenture will define an event of default with respect to any series of debt securities as one or more of the following events:

- (1) failure to pay principal of or any premium on any debt security of that series at its maturity;
- (2) failure to pay any interest on any debt security of that series for 30 days when due;
- (3) failure to deposit any sinking fund payment when due;
- (4) failure to perform or a breach of any other covenant or warranty in the indenture, which default continues uncured for 60 days after being given the notice required in the indenture;
- (5) our bankruptcy, insolvency or reorganization; and
- (6) any other event of default specified in the prospectus supplement.

An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

If an event of default, other than an event of default described in clause (5) above, shall occur and be continuing, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount of the debt securities of that series to be due and payable immediately.

If an event of default described in clause (5) above shall occur, the principal amount of all the debt securities of that series will automatically become immediately due and payable. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under "Subordinated Debt Securities."

After acceleration the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amount, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will 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.

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A holder will not have any right to institute any proceeding under the indentures, or for the appointment of a receiver or a trustee, or for any other remedy under the indentures, unless:

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- (2) the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding; and
- (3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

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Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security without following the procedures listed in (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the indenture and, if so, specifying all known defaults.

Modification and Waiver

We and the trustee may make modifications and amendments to the indentures with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

However, neither we nor the trustee may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

- change the stated maturity of any debt security;
- reduce the principal of, premium, if any, on or interest on any debt security;
- reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity;
- reduce the rate of interest on any debt security;
- change the currency in which any debt security is payable;
- impair the right to enforce any payment after the stated maturity or redemption date;
- waive any default or event of default in payment of the principal of, premium on or interest on any debt security;
- waive a redemption payment or modify any of the redemption provisions of any debt security;
- adversely affect the right, if any, to convert any debt security; or
- change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on the debt securities of any series that have matured or will mature or be redeemed within one year if we deposit with the trustee enough cash to pay all the principal, interest and any premium due on the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect:

- to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding; and/or
- to be released from our obligations under the following covenants and from the consequences of an event of default resulting from a breach of these covenants:
 - (1) the subordination provisions under the subordinated indenture; and
 - (2) covenants as to payment of taxes and maintenance of corporate existence.

To make either of the above elections, we must deposit in trust with the trustee enough money to pay in full the principal, interest and any premium on the debt securities. This amount may be made in cash and/or U.S. government obligations. As a condition to either of the above

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elections, we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for Federal income tax purposes as a result of the action.

If any of the above events occurs, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on the debt securities, the registration of transfer and exchange of the debt securities and replacement of lost, stolen or mutilated debt securities.

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York.

Regarding the Trustee

The indenture limits the right of the trustee, should it become a creditor of us, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which they are trustee, the trustee must eliminate the conflict or resign.

Subordinated Debt Securities

Payment on the subordinated debt securities will, to the extent provided in the indenture, be subordinated in right of payment to the prior payment in full of all of our senior indebtedness. The subordinated debt securities also are effectively subordinated to all debt and other liabilities, including trade payables and lease obligations, if any, of our subsidiaries, if any.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, the payment of the principal of and interest on the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to the holders of senior indebtedness of all senior indebtedness. In the event of any acceleration of the subordinated debt securities because of an event of default, the holders of any senior indebtedness would be entitled to payment in full in cash or other payment satisfactory to such holders of all senior indebtedness obligations before the holders of the subordinated debt securities are entitled to receive any payment or distribution. The indenture requires us or the trustee to promptly notify holders of designated senior indebtedness if payment of the subordinated debt securities is accelerated because of an event of default.

We may not make any payment on the subordinated debt securities, including upon redemption at the option of the holder of any subordinated debt securities or at our option, if:

- a default in the payment of the principal, premium, if any, interest, rent or other obligations in respect of designated senior indebtedness occurs and is continuing beyond any applicable period of grace (called a “payment default”); or
- a default other than a payment default on any designated senior indebtedness occurs and is continuing that permits holders of designated senior indebtedness to accelerate its maturity, and the trustee receives a notice of such default (called a “payment blockage notice”) from us or any other person permitted to give such notice under the indenture (called a “non-payment default”).

We may resume payments and distributions on the subordinated debt securities:

- in the case of a payment default, upon the earlier of the date on which such default is cured, waived or ceases to exist; and
- in the case of a non-payment default, the earlier of the date on which such nonpayment default is cured, waived or ceases to exist and 179 days after the date on which the payment blockage notice is received by the trustee, if the maturity of the designated senior indebtedness has not been accelerated.

No new period of payment blockage may be commenced pursuant to a payment blockage notice unless 365 days have elapsed since the initial effectiveness of the immediately prior payment blockage notice and all scheduled payments of principal, any premium and interest, on the notes that have come due have been paid in full in cash. No non-payment default that existed or was continuing on the date of delivery of any payment blockage notice shall be the basis for any later payment blockage notice.

If the trustee or any holder of the notes receives any payment or distribution of our assets in contravention of the subordination provisions on the subordinated debt securities before all senior indebtedness is paid in full in cash, property or securities, including by way of set-off, or other payment satisfactory to holders of senior indebtedness, then such payment or distribution will be held in trust for the benefit of holders of senior indebtedness or their representatives to the extent necessary to make payment in full in cash or payment satisfactory to the holders of senior indebtedness of all unpaid senior indebtedness.

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In the event of our bankruptcy, dissolution or reorganization, holders of senior indebtedness may receive more, ratably, and holders of the subordinated debt securities may receive less, ratably, than our other creditors (including our trade creditors). This subordination will not prevent the occurrence of any event of default under the indenture.

As of June 30, 2009, we had no senior indebtedness outstanding. We are not prohibited from incurring debt, including senior indebtedness, under the indenture. We may from time to time incur additional debt, including senior indebtedness.

We are obligated to pay reasonable compensation to the trustee and to indemnify the trustee against certain losses, liabilities or expenses incurred by the trustee in connection with its duties relating to the subordinated debt securities. The trustee's claims for these payments will generally be senior to those of noteholders in respect of all funds collected or held by the trustee.

Certain Definitions

"indebtedness" means:

- (1) all indebtedness, obligations and other liabilities for borrowed money (including overdrafts, foreign exchange contracts, currency exchange agreements, interest rate protection agreements, and any loans or advances from banks) or evidenced by bonds, debentures, notes or similar instruments, other than any account payable or other accrued current liability or obligation incurred in the ordinary course of business in connection with the obtaining of materials or services;
- (2) all reimbursement obligations and other liabilities with respect to letters of credit, bank guarantees or bankers' acceptances;
- (3) all obligations and liabilities in respect of leases required in conformity with generally accepted accounting principles to be accounted for as capitalized lease obligations on our balance sheet;
- (4) all obligations and other liabilities under any lease or related document in connection with the lease of real property which provides that we are contractually obligated to purchase or cause a third party to purchase the leased property and thereby guarantee a minimum residual value of the leased property to the lessor and our obligations under the lease or related document to purchase or to cause a third party to purchase the leased property;
- (5) all obligations with respect to an interest rate or other swap, cap or collar agreement or other similar instrument or agreement or foreign currency hedge, exchange, purchase agreement or other similar instrument or agreement;
- (6) all direct or indirect guaranties or similar agreements in respect of, and our obligations or liabilities to purchase, acquire or otherwise assure a creditor against loss in respect of, indebtedness, obligations or liabilities of others of the type described in (1) through (5) above;
- (7) any indebtedness or other obligations described in (1) through (6) above secured by any mortgage, pledge, lien or other encumbrance existing on property which is owned or held by us; and
- (8) any and all refinancings, replacements, deferrals, renewals, extensions and refundings of, or amendments, modifications or supplements to, any indebtedness, obligation or liability of the kind described in clauses (1) through (7) above.

"senior indebtedness" means the principal, premium, if any, interest, including any interest accruing after bankruptcy, and rent or termination payment on or other amounts due on our current or future indebtedness, whether created, incurred, assumed, guaranteed or in effect guaranteed by us, including any deferrals, renewals, extensions, refundings, amendments, modifications or supplements to the above. However, senior indebtedness does not include:

- indebtedness that expressly provides that it shall not be senior in right of payment to the subordinated debt securities or expressly provides that it is on the same basis or junior to the subordinated debt securities;
- our indebtedness to any of our majority-owned subsidiaries; and
- the subordinated debt securities.

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 200,000,000 shares of common stock, \$0.001 par value per share. As of June 30, 2009, we had 90,755,672 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 Computershare Trust Company, N.A.

Share Purchase Rights Plan

On July 20, 2001, our board of directors adopted a share purchase rights plan and declared a dividend distribution of one preferred share purchase right for each outstanding share of common stock to stockholders of record as of July 31, 2001. Each right entitles the holder to purchase one unit consisting of one one-thousandth of a share of Series A Junior Participating Preferred Stock for \$100 per unit. Under certain circumstances, if a person or group of affiliated or associated persons acquires 15% or more of our outstanding common stock (Acquiring Person), holders of the rights (other than the person or group triggering their exercise) will be able to purchase, in exchange for the \$100 exercise price, shares of our common stock, par value \$0.001 per share, or of any company into which Geron is merged having a value of \$200. The rights may be redeemed in whole, but not in part, at a price of \$0.01 per right by our board of directors at any time prior to the time that the Acquiring Person has become such. The rights expire on July 31, 2011 unless extended by our board of directors.

Classified Board of Directors

The certificate of incorporation provides for the board of directors to be divided into three classes of directors, with each class as nearly equal in number as possible, serving staggered three-year terms. As a result, approximately one-third of the board of directors will be elected each year. The classified board provision will help to assure the continuity and stability of the board of directors and the business strategies and policies of Geron as determined by the board of directors. The classified board provision could have the effect of discouraging a third party from making a tender offer or attempting to obtain control of us. In addition, the classified board provision could delay stockholders who do not agree with the policies of the board of directors from removing a majority of the board of directors for two years.

DESCRIPTION OF PREFERRED STOCK

We have authority to issue 3,000,000 shares of preferred stock, \$0.001 par value per share, 50,000 shares of which have been designated Series A Junior Participating Preferred Stock, \$0.001 par value per share, and reserved for issuance under the share purchase rights plan adopted on July 20, 2001 by our board of directors. As of June 30, 2009, 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, and to determine or alter the rights, preferences, privileges and restrictions granted to or imported upon any series of preferred stock, subject to the protective voting rights which have been or may be granted to the preferred stock in certificates of designation or

our Certificate of Incorporation. 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:

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

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

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- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material and/or special United States Federal income tax considerations applicable to the preferred stock;
- 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;
- 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
- 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:

- senior to all classes or series of our common stock and to all of our equity securities ranking junior to the preferred stock;
- 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
- 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.

DESCRIPTION OF WARRANTS

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 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. 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 holders or beneficial owners 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:

- the title of the warrants;
- the aggregate number of the warrants;
- the price or prices at which the warrants will be issued;
- the designation, terms and number of shares of debt securities, preferred stock or common stock purchasable upon exercise of the warrants;
- 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 offered security;
- the date, if any, on and after which the warrants and the related debt securities, preferred stock or common stock will be separately transferable;
- the price at which each share of debt securities, preferred stock or common stock purchasable upon exercise of the warrants may be purchased;
- the date on which the right to exercise the warrants shall commence and the date on which that right shall expire;
- the minimum or maximum amount of the warrants which may be exercised at any one time;
- information with respect to book-entry procedures, if any;

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- a discussion of certain federal income tax considerations; and
- any other terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

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, or DGCL, 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 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 shall be called by the president or secretary at the request in writing of the Board of Directors, or at the request in writing of stockholders owning a majority of the amount of the entire capital stock of the Company issued and outstanding and entitled to vote. 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:

- 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;"
- 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
- 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 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.

VALIDITY OF THE SECURITIES

Latham & Watkins LLP, Menlo Park, California, will issue an opinion with respect to the securities offered hereby.

EXPERTS

The consolidated financial statements of Geron Corporation appearing in Geron's Annual Report on Form 10-K for the year ended December 31, 2008, and the effectiveness of internal control over financial reporting as of December 31, 2008 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports 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 Geron pursuant to our Certificate of Incorporation, as amended, Bylaws and the DGCL, we have been informed that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities 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 Commission. You may read and copy any document we file at the Commission's public reference room located at Room 1580, 100 F Street, N.E., Washington, D.C. 20549. Please call the Commission at 1-800-SEC-0330 for further information on the operation of the public reference room. Our public filings are also available to the public at the Commission'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. For more information about us, please visit our website at www.geron.com.

The Commission 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 Commission will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the Commission under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act between the date of this prospectus and the termination of the offering:

- Geron's Annual Report on Form 10-K for the year ended December 31, 2008, filed with the Commission on February 27, 2009;
- Geron's Current Reports on Form 8-K filed with the Commission on January 23, 2009, January 28, 2009, February 12, 2009, February 12, 2009, February 17, 2009, March 30, 2009, April 27, 2009 and July 2, 2009;
- Geron's Quarterly Report on Form 10-Q for the three months ended March 31, 2009, filed with the Commission on April 30, 2009;
- The description of Geron preferred share purchase rights, contained in Geron's Current Report on Form 8-K dated as of July 20, 2001, filed with the Commission on July 23, 2001, and any amendment or report filed with the Commission for purposes of updating the description; and
- 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 Commission 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 Commission. You may inspect and copy the registration statement, including exhibits, at the Commission'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.

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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.

\$250,000,000

GERON CORPORATION

Debt Securities, Common Stock,
Preferred Stock and Warrants

PROSPECTUS

July 22, 2009

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized anyone to provide you with different information. You should not assume that the information contained or incorporated by reference in this prospectus is accurate as of any date other than the date of this prospectus. We are not making an offer of these securities in any state where the offer is not permitted.

GERON CORPORATION

Shares
Common Stock

PROSPECTUS SUPPLEMENT

J.P. Morgan

Lazard Capital Markets

December , 2010
