GERON CORP
Form S-3
August 20, 2010

As filed with the Securities and Exchange Commission on August 20, 2010
Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

GERON CORPORATION

(Exact Name of Registrant as Specified in Its Charter)

Delaware	75-2287752
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)

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230 Constitution Drive
Menlo Park, California 94025
(650) 473-7700
(Address, Including Zip Code and Telephone Number,
Including Area Code, of Registrant's Principal Executive Offices)

Thomas B. Okarma
President and Chief Executive Officer
Geron Corporation
230 Constitution Drive
Menlo Park, California 94025
(650) 473-7700
(Name, Address, Including Zip Code and Telephone Number,
Including Area Code, of Agent for Service)

Copies to:

Alan C. Mendelson, Esq.
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140 Scott Drive
Menlo Park, California 94025
(650) 328-4600

Approximate date of commencement of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. o

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. o

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b2 of the Exchange Act.

o Large accelerated filer	x Accelerated filer
o Non-accelerated filer (Do not check if a smaller reporting company)	o Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, par value $.001 per share	671,074 shares	$5.28 (2)	$3,543,271	$252.64 (3)

(1) In the event of a stock split, stock dividend, or similar transaction involving Geron’s common stock, in order to prevent dilution, the number of shares registered shall automatically be increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act of 1933.

(2) The offering price is estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(c) and based upon the average of the high and low prices reported by the Nasdaq Global Market on August 17, 2010.

(3) Calculated in accordance with Rule 457(o) under the Securities Act of 1933.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL HEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

THE INFORMATION IN THIS PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THE SELLING STOCKHOLDERS MAY NOT SELL THESE SECURITIES UNTIL THE REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES AND IT IS NOT SOLICITING AN OFFER TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED.

SUBJECT TO COMPLETION, DATED AUGUST 20, 2010

UP TO 671,074 SHARES OF

GERON CORPORATION

COMMON STOCK

Our common stock is traded on the Nasdaq Global Market under the symbol “GERN.” On August 17, 2010, the closing price of our common stock was $5.28.

This prospectus relates to the sale of up to 114,957 shares of our common stock by Hongene Biotechnology Limited, the sale of up to 115,779 shares of our common stock by Samchully Pharm. Co., Ltd., the sale of up to 158,912 shares of our common stock by MPI Research, Inc. and the sale of up to 281,426 shares of our common stock by ReSearch Pharmaceutical Services, Inc. We will not receive any of the proceeds from the sale of these shares covered by this prospectus.

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. SEE “RISK FACTORS” BEGINNING ON PAGE 1.

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

The date of this prospectus is , 2010.

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ABOUT GERON

Geron is developing first-in-class biopharmaceuticals for the treatment of cancer and chronic degenerative diseases, including spinal cord injury, heart failure and diabetes. We are advancing an anti-cancer drug and a cancer vaccine that target the enzyme telomerase through multiple clinical trials in different cancers.

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

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

RISKS RELATED TO OUR BUSINESS

Our business is at an early stage of development.

Our business is at an early stage of development, in that we do not yet have product candidates in late-stage clinical trials or on the market. We have sponsored six Phase I or I/II 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. Four of those trials have completed patient enrollment and the remaining two are expected to complete enrollment in 2010. We currently plan to advance imetelstat to Phase II trials in 2010 in four different malignancies. In July 2010, the first patient was enrolled into Geron's randomized Phase II clinical trial of imetelstat as maintenance therapy following platinum-based induction therapy for patients with non-small cell lung cancer. Patient enrollment for our telomerase cancer vaccine, GRNVAC1, trial in patients with acute myelogenous leukemia is now complete and we are awaiting the results from this Phase II trial. We have no other product candidates in clinical testing. Recently, 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. We will proceed with initiation of the Phase I 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.

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;
- 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 in telomerase technology, hESCs, imetelstat, GRNVAC1 and GRNOPC1, which could adversely affect our business and cause a sharp drop in our stock price.

The science and technology of telomere biology and telomerase and hESCs are relatively new. There is no precedent for the successful commercialization of therapeutic product candidates based on our technologies. These development programs are therefore particularly risky. In addition, we, our licensees or our collaborators must undertake significant research and development activities to develop product candidates based on our 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 for 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.

On March 9, 2009, President Obama issued Executive Order 13505, entitled “Removing Barriers to Responsible Scientific Research Involving Human Stem Cells.” As a result, in July 2009 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. Under the new guidelines, federal funding is allowed for research using hESCs derived from embryos created by in vitro fertilization for reproductive purposes, but are no longer needed for that purpose. Strict ethics requirements must be followed to qualify new stem cell lines, including extensive documentation around consent forms and written policies and procedures. 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.

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

- harming our ability to establish critical partnerships and collaborations;
- delaying or preventing progress in our research, product development or clinical testing;
- preventing commercialization of therapies derived from hESCs; and
- as a result of the potential adverse effects above, causing a decrease in the price of our common stock.

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 June 30, 2010, our accumulated deficit was approximately $610.9 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 agreement that results in revenues. We do not expect that the revenues generated from these arrangements will be sufficient alone to continue or expand our research or development activities and otherwise sustain our operations.

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 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. 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 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 Investigational New Drug (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 have a material adverse effect on our business.

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 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.

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, our business would be negatively impacted.

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 several parties seek 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.) was granted patent claims that conflict with subject matter we filed in an earlier patent application. The interference proceeding will determine whether ViaCyte is entitled to such patent claims. A number of outcomes are possible: the claims may be awarded to ViaCyte; the claims may be awarded to Geron, or 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) was developing a cancer vaccine that employs a short telomerase peptide to induce an immune response against telomerase and was conducting a Phase III 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 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. In late 2008, Pharmexa reported that it sold its telomerase vaccine program to a Korean company, KAEL Co. Ltd. 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. 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 the 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 and embryonic stem cells, the risk of our patents being challenged through patent interferences, oppositions, reexaminations 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. 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 prevent us from pursuing research and development or commercialization of potential products.

Our commercial success depends significantly on our ability to operate without infringing patents and the proprietary rights of others. Our technologies may infringe the patents or proprietary rights of others. In addition, we may become aware of discoveries and technology controlled by third parties that are advantageous to our 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, 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 non-employee 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. 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.

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 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.

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 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;
- increasing oversight by the FDA of pharmaceutical research and development processes and commercialization tactics; and
- adding a tax credit for qualifying therapeutic discovery projects (QTDP).

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.

The QTDP tax credit is equal to 50% of qualifying expenses incurred or directly related to the conduct of a qualifying therapeutic discovery project for taxable years beginning in 2009 and 2010. The credit can be used to either reduce the federal tax liability for an eligible taxpayer or be received as a grant for the same amount tax free. Eligible taxpayers must be a single employer of not more than 250 employees. To qualify for the credit, a project must be submitted to and certified by the Treasury Department. The deadline for the QTDP application was July 21, 2010 and final decision on the awardees will be announced by October 31, 2010. Although our research and development activities appear to meet the initial criteria to receive a tax credit, we cannot predict the availability or amount of funds that could be received. If we are unsuccessful in obtaining the benefits of the QTDP tax credit and our competitors are successful, our business may be adversely impacted.

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 2000 and August 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 August 17, 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;
- 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;
- 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; or
- 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. Since the third quarter of 2008, 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 for 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 for our common stock. As of August 17, 2010, we had 200,000,000 shares of common stock authorized for issuance and 102,602,673 shares of common stock outstanding. In addition, as of August 17, 2010, we have reserved for future issuance approximately 23,064,768 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. Also, sales of the shares issued in this manner could negatively affect the market price for our common stock.

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 filing, 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 for 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 for 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.

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 our potential products, dependence on collaborative partners, need for additional capital, need for regulatory approvals or clearances, the maintenance of our 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.

USE OF PROCEEDS

We are filing the registration statement of which this prospectus is a part under our contractual obligations to the holders named in the section entitled "Selling Stockholders." We will not receive any of the proceeds from resale of these shares of common stock by the selling stockholders.

DESCRIPTION OF OUR COMMON STOCK

The following summary is a general description of our common stock. Complete details can be found in our Charter and bylaws, copies of which are on file with the SEC as exhibits to registration statements and reports under the Securities Act of 1933, as amended (the Securities Act) and the Securities Exchange Act of 1934, as amended (the Exchange Act), respectively, 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 August 17, 2010, we had 102,602,673 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 stockholder. 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 our 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.