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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Prospectus

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” 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 acceptancefor 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 accompany 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

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 to 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.

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.

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 Off