GERON CORP
Form 10-K
March 15, 2013

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2012

or

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

For the transition period from to .
Commission File Number: 0-20859

GERON CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**75-2287752**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
149 Commonwealth Drive, Suite 2070, Menlo Park, CA	**94025**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(650) 473-7700**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.001 par value	The Nasdaq Stock Market LLC

Securities registered pursuant to Section 12(g) of the Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No ý

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No ý

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ý

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 12b-2 of the Exchange Act.

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No ý

The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant was approximately $219,814,000 based upon the closing price of the registrant's common stock on June 30, 2012 on the Nasdaq Global Select Market. The calculation of the aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant excludes shares of common stock held by each officer, director and stockholder that the registrant concluded were affiliates on that date. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 1, 2013, there were 130,574,667 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

Document	**Form 10-K Parts**
Portions of the Registrant's definitive proxy statement for the 2013 annual meeting of stockholders to be filed pursuant to Regulation 14A within 120 days of the Registrant's fiscal year ended December 31, 2012	III

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In this report, unless otherwise indicated or the context otherwise requires, "Geron," "the registrant," "we," "us," and "our" refer to Geron Corporation, a Delaware corporation.

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Forward-Looking Statements

This annual report on Form 10-K, including "Business" in Part I, Item 1 and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7, contains forward-looking statements that involve risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause the results of Geron Corporation, or Geron or the Company, to differ materially from those expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be deemed forward-looking statements. In some cases, forward-looking statements can be identified by the use of terminology such as "may," "expects," "plans," "intends," "will," "should," "projects," "believes," "predicts," "anticipates," "estimates," "potential," or "continue" or the negative thereof or other comparable terminology. The risks and uncertainties referred to above include, without limitation, risks related to our research and development efforts, need for future capital, timely completion of our clinical trials and investigator-sponsored trials, uncertainty of clinical trial results or regulatory approvals or clearances, manufacturing imetelstat at scales and costs appropriate for commercialization, enforcement of our patent and proprietary rights, reliance upon our collaborative partners, potential competition and other risks that are described herein and that are otherwise described from time to time in our Securities and Exchange Commission reports including, but not limited to, the factors described in Item 1A, "Risk Factors," of this annual report on Form 10-K. Geron assumes no obligation for and except as required by law, disclaims any obligation to update these forward-looking statements to reflect future information, events or circumstances.

PART I

ITEM 1. BUSINESS

Overview

We are a biopharmaceutical company developing first-in-class therapies for cancer. Imetelstat, a novel, first-in-class telomerase inhibitor, is our product candidate in clinical development. Telomerase enables cancer cells to maintain telomere length, which provides them with the capacity for limitless cellular replication. Imetelstat is a potent and specific inhibitor of telomerase. Based on clinical data we obtained in late 2012, we may develop imetelstat to treat one or more hematologic myeloid malignancies such as myelofibrosis, or MF, myelodysplastic syndromes, or acute myelogenous leukemia.

Using our proprietary nucleic acid chemistry, we designed imetelstat to be a modified oligonucleotide that targets and binds with high affinity to the active site of telomerase, thereby directly inhibiting telomerase activity. We developed imetelstat from inception and own exclusive worldwide commercial rights with U.S. patent coverage extending through 2025.

Hematologic Malignancies

We evaluated imetelstat in two single-arm Phase 2 trials in hematologic, or blood-based, cancers: essential thrombocythemia, or ET, and multiple myeloma. Top-line data from the ET trial that we presented at a scientific meeting in December 2012 showed durable hematologic and molecular responses in patients. These data suggest that imetelstat inhibited, in a relatively selective manner, the progenitor cells of the malignant clone believed to be responsible for the underlying disease. Preliminary data from the multiple myeloma trial showed a rapid and significant decrease in myeloma progenitor cells that were detected in blood over the course of imetelstat treatment.

Based on the data from our Phase 2 ET clinical trial, in November 2012, Dr. Ayalew Tefferi at the Mayo Clinic initiated an investigator-sponsored trial, or the Mayo Clinic Trial, to evaluate the safety and efficacy of imetelstat in patients with MF and determine the optimal dose and schedule for further evaluation. Data from this trial will inform any future Geron-sponsored clinical trial in patients with

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MF, if positive. We intend to expand our directed program of investigator-sponsored trials to other hematologic myeloid malignancies, including myelodysplastic syndromes and acute myelogenous leukemia.

Telomeres and Telomerase in Normal Development

In the human body, normal growth and maintenance of tissues occurs by cell division. However, most cells are only able to divide a limited number of times, and this number of divisions is regulated by telomere length. Telomeres are repetitions of a DNA sequence located at the ends of chromosomes. They act as protective caps to maintain stability and integrity of the chromosomes, which contain the cell's genetic material. Every time a cell divides, the telomeres shorten. Eventually, they shrink to a critically short length, and as a result the cell either dies by apoptosis or stops dividing and senesces.

Telomerase is a naturally occurring enzyme that maintains telomeres and prevents them from shortening during cell division in cells, such as stem cells, that must remain immortalized to support normal health. Telomerase consists of at least two essential components: an RNA template (hTR), which binds to the telomere, and a catalytic subunit (hTERT) with reverse transcriptase activity, which adds a specific DNA sequence to the chromosome ends. The 2009 Nobel Prize for Physiology and Medicine was awarded for the discovery of how chromosomes are protected by telomeres and the enzyme telomerase. The Nobel laureates were early Geron collaborators, Dr. Elizabeth H. Blackburn and Dr. Carol W. Greider, along with Dr. Jack W. Szostak.

Telomerase is active during embryonic development, enabling the rapid cell division that supports normal growth. During the latter stages of human fetal development and in adulthood, telomerase is repressed in most cells, and telomere length gradually decreases during a lifetime. In tissues that have a high turnover throughout life, such as blood and gut, telomerase can be transiently upregulated in progenitor cells to enable controlled, self-limited proliferation to replace cells lost through natural cell aging processes. In proliferating progenitor cells, relatively long telomeres are maintained by upregulated telomerase. As the progeny of progenitor cells mature, telomerase is downregulated and telomeres shorten with cell division, preventing uncontrolled proliferation.

Telomeres and Telomerase in Cancer

Telomerase is upregulated in many tumor progenitor cells, which enables the continued and uncontrolled proliferation of the malignant cells that drive tumor growth and progression. Telomerase expression has been found to be present in approximately 90% of biopsies taken from a broad range of human cancers. Our non-clinical studies, in which the telomerase gene was artificially introduced and expressed in normal cells grown in culture, have suggested that telomerase does not itself cause a normal cell to become malignant. However, the sustained upregulation of telomerase enables tumor cells to maintain telomere length, providing them with the capacity for limitless proliferation. In addition, recent data from studies in malignant melanoma suggest that molecular mutations that result in increased telomerase expression may be early and fundamental driving events for certain types of cancer.

Telomerase Inhibition: Inducing Cancer Cell Death

We believe that inhibiting telomerase may be an attractive approach to treating cancer because it may limit the proliferative capacity of malignant cells. We and others have observed in various in vitro and rodent tumor models that inhibiting telomerase results in telomere shortening and arrests uncontrolled malignant cell proliferation and tumor growth. Our non-clinical data also suggest that inhibiting telomerase is particularly effective at limiting the proliferation of malignant progenitor cells, which have high levels of telomerase and are believed to be the key drivers of tumor growth and progression.

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Many blood-based cancers are known to arise from malignant progenitor cells in the bone marrow, providing a strong rationale for potential treatment with a telomerase inhibitor.

Imetelstat: a First-in-Class Telomerase Inhibitor

Origins of Imetelstat

Despite the clinical potential of telomerase as a target for developing new cancer treatments, small molecule telomerase inhibitors have not progressed to the clinic due to lack of potency or specificity. As an alternative strategy, we utilized our proprietary nucleic acid chemistry to develop imetelstat as a short, modified oligonucleotide that is a potent and specific inhibitor of telomerase.

Imetelstat is a lipid-conjugated 13-mer oligonucleotide sequence that is complementary to and binds with high affinity to the RNA template of telomerase, thereby directly inhibiting telomerase activity. The compound has a proprietary thio-phosphoramidate backbone, which provides resistance to the effect of cellular nucleases, thus conferring improved stability in plasma and tissues, as well as significantly improved binding affinity to its target. To improve the ability of imetelstat to permeate through cellular membranes, we conjugated the oligonucleotide sequence to a lipid group. Imetelstat's IC_{50}, or half maximal inhibitory concentration, is 0.5-10nM in cell-free assays. The tissue half life of imetelstat, or the time it takes for the concentration or amount of imetelstat to be reduced by half, in bone marrow, spleen, liver and tumor has been estimated to be 41 hours in humans, based on data from animal studies and clinical trials. The tissue half life indicates how long a drug will remain present in the tissues, and a longer tissue half life may enable a drug to remain at effective doses for a longer period of time.

Imetelstat is the first telomerase inhibitor to advance to clinical development. The Phase 1 trials that we completed evaluated the safety, tolerability, pharmacokinetics and pharmacodynamic effects of imetelstat. Doses and dosing schedules were established that were tolerable and achieved target exposures in patients that were consistent with those required for efficacy in animal models. Adverse events were manageable and reversible. The dose-limiting toxicities were thrombocytopenia, or reduced platelet count, and neutropenia, or reduced white blood cell count. Clinically relevant and significant inhibition of telomerase activity was observed following administration of imetelstat in various types of tissue in which telomerase activity is measurable, including normal bone marrow hematopoietic cells, malignant plasma cells, hair follicle cells, and peripheral blood mononuclear cells, at tolerable dosing regimens.

Based on the results observed in our preclinical studies and Phase 1 clinical trials, we designed four Phase 2 clinical trials to study cancers for which we had supportive non-clinical data, evidence that the disease was driven by malignant progenitor cell proliferation, and in which imetelstat could be tested as a single agent treatment or in combination with cytotoxic chemotherapy. Based on these criteria, for our Phase 2 program, we selected two hematologic tumors: ET and multiple myeloma, and two solid tumors: metastatic breast cancer and advanced non-small cell lung cancer, or NSCLC.

Imetelstat: Telomerase Inhibitor for Treating Hematologic Malignancies

Disease Background

Hematologic malignancies are forms of cancer that begin in the cells of blood-forming tissue, such as the bone marrow, or in the cells of the immune system. Examples of hematologic cancer are acute and chronic leukemias, lymphomas, multiple myeloma and myelodysplastic syndromes. Myeloproliferative neoplasms, or MPNs, are hematologic cancers that arise from malignant hematopoietic myeloid progenitor cells in the bone marrow, such as the precursor cells of red cells, platelets and granulocytes. Proliferation of malignant progenitor cells leads to an overproduction of any combination of white cells, red cells and/or platelets, depending on the disease. These overproduced

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cells may also be abnormal, leading to additional clinical complications. Included in the MPN disease spectrum are polycythemia vera, or PV, ET and MF.

Essential Thrombocythemia

ET is characterized by a high platelet count, often accompanied by a high white cell count, and an increased risk of thrombosis or bleeding in higher-risk patients. Incidence estimates of 2-3 cases per 100,000 per year are consistent with other types of leukemia, but prevalence rates are at least ten times higher due to the low mortality rates associated with ET. Current standards of care in ET, such as hydroxyurea and anagrelide, are generally effective and are associated with reasonable tolerability.

Phase 2 Top-Line Results: Essential Thrombocythemia

In December 2012 at the American Society of Hematology, or ASH, annual meeting, we presented positive top-line clinical results from the first 14 patients enrolled in the Phase 2 trial of imetelstat in ET. The presented data showed durable hematologic and molecular response in these patients treated with imetelstat.

The Phase 2 trial of imetelstat in ET was a multi-center, single arm, open-label study designed to provide proof-of-concept for the potential use of the drug as a treatment for hematologic myeloid malignancies, including MF, myelodysplastic syndromes and acute myelogenous leukemia. The trial leveraged clinical observations from Phase 1 that imetelstat reduces platelet counts, as well as non-clinical observations that imetelstat distributes well to bone marrow in rodent models and selectively inhibits the proliferation of malignant progenitors ex vivo from patients with ET.

Hematologic responses were measured by reductions in platelet counts, which are elevated in patients with ET. Molecular mutations such as JAK2 V617F, which occur in 50% of patients with ET and are believed to be acquired in malignant clonal progenitor cells, can be used as molecular markers of disease burden. Molecular responses were measured by reductions in JAK2 V617F mutant allele burden, or reduction in the proportion of the abnormal Janus kinase 2, or JAK2, gene compared to the normal, or wild type JAK2 gene, in circulating granulocytes. A decrease in the proportion of the JAK2 V617F mutant relative to the wild type JAK2 is consistent with selective inhibition of the malignant progenitor cells responsible for the disease. The European LeukemiaNet criteria, a standardized definition of response to treatment in ET defined by Barosi, et al. in the journal Blood (2009), were used to grade both hematologic and molecular responses.

The first 14 patients enrolled in our Phase 2 ET trial were all refractory to or intolerant of conventional therapies (hydroxyurea, anagrelide and/or interferon-alpha). Platelet counts were reduced in all patients (a 100% hematologic response rate) and normalized in 13 out of 14 patients (a 92.9% complete response, or CR, rate). The allele burden of the JAK2 V617F gene mutation decreased over time in all seven patients who had that mutation. Reductions of 60% to 90%, which qualified as partial molecular responses according to the European LeukemiaNet criteria, were achieved in six out of seven (85.7%) patients within three to six months of treatment with imetelstat. We believe that these results suggest that imetelstat had a selective inhibition of the malignant progenitor cells, which are believed to be responsible for the underlying disease, and may provide evidence indicating that imetelstat has a disease-modifying effect in ET. As a consequence, we also believe that imetelstat may have applicability for the treatment of other progenitor cell-driven hematologic malignancies, including MF.

As of the latest data cut for safety using the information available from the first 16 patients in the trial, long-term administration of imetelstat was generally well tolerated. Of those 16 patients, 15 patients remain in the trial, and no patients have discontinued due to adverse events. The majority of the non-hematologic adverse events were mild-to-moderate in severity with the most frequently reported non-laboratory test findings being gastrointestinal events, infections, muscular and joint pain and fatigue. Infections that were reported to be imetelstat-related were limited in duration and minor

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in nature. No patients with profound (Grade 4) neutropenia had concurrent infection. No drug-related, potentially life-threatening, non-hematologic adverse events, where medical intervention was indicated, were reported.

Neutropenia was the most frequently observed hematologic abnormality. Two patients had profound (Grade 4) neutropenia, which did not result in any clinical consequences or require medical intervention, and no cases of febrile neutropenia were reported. One suspected thromboembolic event, which was assessed as not related to imetelstat, has been reported. No bleeding events associated with thrombocytopenia were reported.

At least one abnormal liver function test was observed in laboratory findings in all 16 patients. Early onset, self-limiting, mild (Grade 1) increases in alanine aminotransferase were observed with accompanying mild (Grade 1) increases in aspartate aminotransferase; the latter frequently persisted with ongoing imetelstat treatment. With longer dosing, new onset, mild (Grade 1) increases in alkaline phosphatase were observed in seven of 16 patients, associated with mostly mild (Grade 1) to some moderate (Grade 2) unconjugated hyperbilirubinemia in four patients. Within a few weeks after starting imetelstat treatment, in four patients, a transient increase in alanine aminotransferase of five (Grade 2) to seven (Grade 3, or severe) times the standard upper limit, with concurrent increase in aspartate aminotransferase of two (Grade 1) to six (Grade 3) times the standard upper limit, was observed. These abnormalities resolved and did not re-occur with ongoing imetelstat treatment.

In December 2012, the trial ceased enrolling new patients, with a total of 18 ET patients and two PV patients enrolled. Under the protocol, the approved duration of treatment is up to three years.

Phase 2 Preliminary Results: Multiple Myeloma

We designed a Phase 2 trial of imetelstat in patients with multiple myeloma to measure the effect of imetelstat on the progenitor cells responsible for the disease. This trial was primarily designed as a biomarker trial and not necessarily to directly enable further development of imetelstat in myeloma. The preliminary data from this trial, as of July 30, 2012, have been published in an abstract in the journal, Blood (ASH Annual Meeting Abstracts) 2012 120: Abstract 4898. The published data showed a rapid and significant decrease in myeloma progenitor cells that were detected in the blood over the course of imetelstat treatment in eight out of nine patients assessed. In addition, several patients experienced delayed, but sustained, clinical responses as measured by standard criteria. We believe these data support the thesis that imetelstat has a beneficial effect on malignant progenitor cells.

As reported in the abstract, as of July 30, 2012, six patients remained on study. Four patients were discontinued from imetelstat therapy after receiving a median of seven doses of imetelstat. Of these four, two patients discontinued due to disease progression and two patients discontinued due to hematologic toxicity. Cytopenias, or reduced blood cell counts, were the most frequently reported toxicities with eight of ten patients demonstrating Grade 3-4 thrombocytopenia and neutropenia during cycle 2, which in many cases required dose reductions or holds in subsequent cycles.

This trial is no longer enrolling patients, and we expect full clinical data from all patients enrolled in the multiple myeloma trial will be available in 2013. Given the results of the ET trial and the potential application of imetelstat in other hematologic myeloid malignancies, at this time, we do not have any plans to pursue further development of imetelstat in lymphoid malignances, including multiple myeloma.

Future Development of Imetelstat in Hematologic Myeloid Malignancies

Essential Thrombocythemia

Most ET patients are well served with currently available therapies. However, the recent top-line results from our Phase 2 ET clinical trial showed a high percentage of durable hematologic and

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molecular responses in patients who did not respond to or tolerate other therapies. Therefore, we are currently working with expert advisors to assess the potential, if any, for further development of imetelstat in ET.

Myelofibrosis

MF is a myeloproliferative neoplasm in the same spectrum of diseases as ET. Patients with MF often carry the JAK2 V617F mutation in their bone marrow. Occasionally ET evolves into MF. JAK inhibition is currently considered a standard of care for MF in countries where ruxolitinib (Jakafi®), a JAK inhibitor, is approved. There is no evidence that JAK inhibitors, such as Jakafi®, selectively inhibit proliferation of the leukemic clone responsible for the disease and thus, they may not be "disease modifying".

The Mayo Clinic Trial is evaluating the safety and efficacy of imetelstat in patients with MF and determining the optimal dose and schedule for further evaluation. It is an open-label trial in intermediate or high-risk patients with primary MF, post-polycythemia vera MF or post-essential thrombocythemia MF, and may enroll up to 29 patients. Patients receive imetelstat by intravenous infusion over two hours every 21 days. The primary endpoint of this trial is overall response rate, measured by criteria such as clinical improvement, partial remission, or complete remission according to the International Working Group for Myelofibrosis Research and Treatment, or IWG-MRT, consensus criteria. The secondary endpoints include reduction of spleen size, transfusion independence, safety and tolerability.

The Mayo Clinic Trial is enrolling and dosing both JAK inhibitor naïve patients and patients who previously have been treated with one or more JAK inhibitors. If no safety or tolerability issues are observed, dose escalation will be considered. We are in the initial planning stages of a Geron-sponsored trial of imetelstat in MF, which will be informed by data from the Mayo Clinic Trial, if positive.

Other Hematologic Malignancies

We intend to expand our directed program of investigator-sponsored trials to other hematologic myeloid malignancies, including myelodysplastic syndromes and acute myelogenous leukemia. The specific design of these trials will be informed by preliminary data from the Mayo Clinic Trial. At this time, we do not have any plans to develop imetelstat in lymphoid malignancies, including multiple myeloma.

Imetelstat: Telomerase Inhibitor for Treating Solid Tumors

We also evaluated imetelstat in two randomized, controlled Phase 2 clinical trials in solid tumors: one evaluated imetelstat in combination with paclitaxel compared to paclitaxel alone in patients with metastatic breast cancer, and the other tested imetelstat as maintenance treatment compared to observation following induction treatment with platinum-based doublet chemotherapy in patients with advanced NSCLC.

In September 2012, we discontinued the metastatic breast cancer trial because the median progression-free survival, or PFS, in the imetelstat treatment arm was shorter than in the comparator arm. The results of the NSCLC trial are summarized below.

Phase 2 Top-Line Results: Non-Small Cell Lung Cancer

The Phase 2 NSCLC trial was designed to evaluate imetelstat as maintenance treatment following platinum-based induction chemotherapy, compared to observation. This trial randomized patients on a 2:1 basis to imetelstat maintenance versus observation. The primary endpoint of the study was PFS for all patients enrolled in the trial. In addition, a number of exploratory sub-group analyses were

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pre-specified such as imetelstat monotherapy vs. imetelstat in combination with bevacizumab and adenocarcinoma vs. squamous histology. Our published non-clinical data suggest that tumor cells with short telomeres may be more sensitive to telomerase inhibition with imetelstat than tumor cells with longer telomeres. Telomere length has been observed to vary with tumor type, as well as among individual patients within a tumor type. We hypothesize that tumors with short telomeres may be more dependent on telomerase for continued growth, and therefore may be more sensitive to telomerase inhibition. To conduct an initial evaluation of this hypothesis clinically, we included a pre-specified exploratory sub-group analysis of outcomes by tumor telomere length.

In September 2012, we conducted an unplanned interim analysis of the data from this trial. The analysis suggested a modest trend in PFS in favor of the imetelstat treatment arm for the overall patient population being studied. Median PFS for the imetelstat treatment arm was 2.8 months compared to 2.6 months for the comparator arm. Enrollment in the Phase 2 NSCLC trial was completed in May 2012, and we are continuing to follow patients previously enrolled in the trial.

In December 2012, we completed a sub-group analysis of the clinical data from the NSCLC trial in which we analyzed the effect of imetelstat on tumors with various tumor telomere lengths. The data from this sub-group analysis showed that the imetelstat-treated patients with short tumor telomere length experienced an increase in PFS compared to patients in the comparator arm. This treatment effect was not observed in patients whose tumors had medium-to-long telomeres.

In March 2013, we completed an updated analysis of the pre-specified exploratory sub-group based on tumor telomere length that included a more mature follow-up of clinical data and a re-test of patient tumor samples using a refined, prospective assay to measure telomere length. In the updated analysis, the magnitude of the treatment effect in patients whose tumors had short telomeres was not reproduced. We are evaluating the impact of this updated analysis on our plans for potential development of imetelstat in solid tumors, including NSCLC, and have commenced the procedures for screening multiple tumor banks (e.g., small cell lung cancer, ovarian cancer and sarcomas) to identify other solid tumor types with a significant number of patients that have tumors with short telomeres. Data from the NSCLC trial have been accepted for presentation at the American Association for Cancer Research annual meeting to be held in April 2013.

Discovery Research Program

Based on the unique and proprietary advanced oligonucleotide chemistry that has produced imetelstat, we have a discovery research program that has been focusing on generating other potential compounds and identifying other molecular cancer targets. We believe that the performance of this chemistry has been validated by our ability to make imetelstat and by the clinical results from the Phase 2 trial in ET. We plan to continue to assess whether the chemistry can be utilized to address other important molecular targets in oncology for which it has been difficult to develop conventional drugs using small molecules and antibodies.

Discontinuation of GRN1005

In December 2012, we discontinued development of GRN1005, a novel peptide-drug conjugate designed to treat cancers that have metastasized to the brain, based on an interim analysis for futility for GRABM-B, our Phase 2 trial in patients with brain metastases arising from breast cancer, and study enrollment challenges with GRABM-L, our Phase 2 trial in patients with brain metastases arising from NSCLC. The GRABM-B and GRABM-L trials have been closed to further patient enrollment, and we continue to treat and/or follow the patients remaining in the trials. In connection with the decision to discontinue development of GRN1005, we provided to Angiochem, Inc. notice of termination of both the exclusive license agreement under which we received rights to GRN1005 and an associated research collaboration and option agreement. Under the terms of the license agreement, the effective date of the termination is June 1, 2013, but our obligations to complete the GRABM-B and GRABM-L trials may continue beyond that date.

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Research and Development

For information regarding research and development expenses incurred during 2012, 2011 and 2010, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations Research and Development Expenses".

Intellectual Property

Intellectual property, including patent protection, is very important to our business. We file patent applications in the United States and other jurisdictions, and we also rely on trade secret protection and contractual arrangements to protect aspects of our business. An enforceable patent with appropriate claim coverage can provide an advantage over competitors who may seek to employ similar approaches to develop therapeutics, and so our future commercial success will be in part dependent on our intellectual property strategy. The information provided in this section should be reviewed in the context of the section entitled "Risks Related to Protecting Our Intellectual Property" that begins on page 29.

The development of biotechnology products, including ours, typically includes the early development of a technology, followed by rounds of increasingly focused innovation around a product opportunity, including identification and definition of a specific product candidate and uses thereof, manufacturing processes, product formulation and administration methods. The result of this process is that biotechnology products are often protected by several families of patent filings that are filed at different times during product development and cover different aspects of the product. Consequently, earlier filed, broad technology patents will usually expire ahead of patents covering later developments such as product formulations, so that patent expirations on a product may span several years. Patent coverage may also vary from country to country based on the scope of available patent protection. There are also opportunities to obtain extension of patent coverage for a product in certain countries, which add further complexity to the determination of patent life.

We endeavor to monitor worldwide patent filings by third parties that are relevant to our business. Based on this monitoring, we may determine that an action is appropriate to protect our business interests. Such actions may include negotiating patent licenses where appropriate, filing oppositions or reexaminations against a patent, or filing a request for the declaration of an interference with a U.S. patent application or issued patent.

Imetelstat

The following table shows the estimated latest expiration dates for the composition of matter patents or patent applications for our oncology product candidate, imetelstat, and in the case of patent applications, assuming issued patents result from such applications. Composition of matter patents generally provide the most material coverage, and therefore may convey competitive advantages. Because imetelstat is still under development, subsequent innovation and associated patent filings may provide additional patent coverage with later expiration dates. Examination of overseas patent applications typically lags behind U.S. examination particularly where cases are filed first in the United States. The stated U.S. expiration dates include patent term adjustments for delays in prosecution by the U.S. Patent and Trademark Office, but do not account for potential patent term extensions that

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may be available to compensate us for delays in U.S. Food and Drug Administration, or FDA, regulatory review of a new drug application.

Product Candidate	U.S. Patent Status / Expiration Date	Europe Patent Status / Expiration Date	Japan Patent Status / Expiration Date
Imetelstat	Issued / 2025	Issued / 2020*	Issued / 2024

*

An additional composition of matter patent application for imetelstat has been filed that, if issued, would provide European patent protection until 2024.

Our patent rights for imetelstat include those covering the nucleic acid sequence of hTR, the RNA component of telomerase, against which the oligonucleotide component of imetelstat is targeted, and the amidate nucleic acid chemistry used in that oligonucleotide, as well as manufacturing processes for the drug and composition claims to the drug molecule. These patents and patent applications are wholly owned by Geron. The U.S. expiration dates on these patent families currently range from 2014 to 2025.

Our oncology research programs make use of our assets and expertise in areas including telomerase biology and nucleic acid chemistry. Our patent rights relating to telomerase cover the cloned genes that encode the RNA component (hTR) and the catalytic protein component (hTERT) of human telomerase, cells that are immortalized by expression of recombinant hTERT, and cancer diagnostics based on detecting the expression of telomerase in cancer cells. Certain of these patents are in-licensed or co-owned with other entities including the Universities of Colorado, California and Texas Southwestern Medical Center. Our proprietary nucleic acid chemistry is covered by patent families that we acquired in 2002 from Lynx Therapeutics, Inc., as well as in patents that we filed for further developments of this chemistry.

Licensing

We have granted licenses to a number of other organizations to utilize aspects of our technologies to develop and commercialize products outside of our oncology program. These include:

- licenses to several biotechnology and pharmaceutical companies to use telomerase-immortalized cells in drug discovery research;
- licenses to several companies to commercialize telomerase-immortalized cells for drug discovery applications;
- licenses to several companies to sell antibodies specific to telomerase for research purposes;
- licenses to several companies to develop and commercialize reagent kits, or to provide services, for the measurement of telomere length or telomerase activity for research purposes;
- a license to a company to develop and commercialize a particular telomerase-based technology for cancer detection; and
- a license to a company for the development of cancer immunotherapies for veterinary applications.

We have also granted licenses to third parties with respect to certain of our stem cell assets, and upon the closing of the transaction related to the divestiture of our stem cell assets, such licenses will be divested to BioTime Acquisition Corporation, or BAC. For further information, see the section titled "Divestiture of Human Embryonic Stem Cell Assets," below.

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Competition

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, including the study of telomeres and telomerase.

We believe that the quality and breadth of our technology platform, the skills of our employees and our ability to recruit and retain skilled employees, our patent portfolio and our capabilities for research and development are competitive strengths. However, many large pharmaceutical and biotechnology companies have significantly larger intellectual property estates than we do, more substantial capital resources than we have, and greater capabilities and experience than we do in preclinical and clinical development, sales, marketing, manufacturing and regulatory affairs.

Many companies are developing alternative therapies to treat cancer and, in this regard, are competitors of ours. 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 (e.g., GlaxoSmithKline, Bristol-Myers Squibb Company, Novartis AG, Incyte Corporation and Gilead Sciences, Inc.) have significantly greater financial resources and expertise than we do in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and marketing, sales 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.

We believe that our ability to successfully compete will depend on, among other things:

- the efficacy, safety and reliability of imetelstat;
- the timing and scope of regulatory approvals and clearances;
- the speed at which we develop imetelstat;
- our ability to complete preclinical testing and clinical development and obtain regulatory approvals and clearances for imetelstat;
- our ability to manufacture and sell commercial quantities of imetelstat to the market;
- the availability of reimbursement for imetelstat use in approved indications;
- the acceptance of imetelstat by physicians and other health care providers as an effective treatment;
- the quality and breadth of our technology;
- the skills of our employees and our ability to recruit and retain skilled employees;

the protection of our intellectual property; and

the availability of substantial capital resources to fund development and commercialization activities.

Imetelstat and any potential future product candidates that we may develop or discover are likely to be in highly competitive markets. We are aware of products in research or development by our

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competitors that address the diseases we are targeting, and any of these products may compete with imetelstat. Our competitors may succeed in developing their products before we do, obtaining approvals from the FDA or other regulatory agencies for their products more rapidly than we do, or developing products that are more effective than imetelstat. These products or technologies might render our technology obsolete or noncompetitive. There may also be product candidates of which we are not aware at an earlier stage of development that may compete with imetelstat.

In addition, imetelstat and any potential future product candidate that we develop may need to compete or combine with existing therapies, many with long histories of use. Approved and established therapies in metastatic NSCLC include bevacizumab, crizotinib, erlotinib and pemetrexed. Approved or established therapies in ET include hydroxyurea, anagrelide and interferon alfa-2B. Currently, the only approved therapy for MF is ruxolitinib for use in patients with intermediate or high risk MF. Imetelstat may compete or combine with these or other therapies.

Government Regulation

Regulation by governmental authorities in the United States and other countries is a significant factor in the development, manufacture and marketing of our proposed product and in our ongoing research and product development activities. The nature and extent to which such regulation applies to us will vary depending on the nature of any product which may be developed by us. We anticipate that imetelstat will require regulatory approval by governmental agencies prior to commercialization. In particular, potential human therapeutic products, such as imetelstat, are subject to rigorous preclinical and clinical testing and other approval procedures of the FDA and similar regulatory authorities in European and other countries. Various governmental statutes and regulations also govern or influence testing, manufacturing, safety, labeling, storage and recordkeeping related to such products and their marketing. The process of obtaining these approvals and the subsequent compliance with appropriate statutes and regulations require the expenditure of substantial time and money, and there can be no guarantee that approvals will be granted.

United States Food and Drug Administration Approval Process

Prior to commencement of clinical trials involving humans, preclinical testing of new pharmaceutical products is generally conducted on animals in the laboratory to evaluate the potential efficacy and safety of a product candidate. The results of these trials are submitted to the FDA as part of an Investigational New Drug, or IND, application, which must be cleared by the FDA before clinical testing in humans can begin. Typically, clinical evaluation involves a time-consuming and costly three-phase trial process. In Phase 1, clinical trials are conducted with a small number of healthy volunteers or patients afflicted with a specific disease to assess safety and to evaluate the pattern of drug distribution and metabolism within the body. In Phase 2, clinical trials are conducted with groups of patients afflicted with a specific disease in order to determine preliminary efficacy, optimal dosages and expanded evidence of safety. The Phase 2 trials can be conducted comparing the investigational treatment to a comparator arm, or not. If used, a comparator usually includes standard of care therapy. Safety and efficacy data from Phase 2 clinical trials, even if favorable, may not provide sufficient rationale for proceeding to a Phase 3 clinical trial. In Phase 3, large-scale, multi-center, comparative trials are conducted with patients afflicted with a target disease to provide sufficient data to demonstrate the efficacy and safety required by the FDA. The FDA closely monitors the progress of each of the three phases of clinical testing and may, at its discretion, re-evaluate, alter, suspend, or terminate the trials.

The results of the preclinical and clinical testing of small molecules and many biologic drugs are submitted to the FDA in the form of a New Drug Application, or NDA, for review and for approval prior to commencement of commercial sales. In the case of blood products, vaccines, or gene and cell therapies, the results of clinical trials are submitted to the FDA as a Biologics License Application, or

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BLA. In responding to an NDA/BLA submission, the FDA may grant a marketing authorization, impose limitations on a marketing authorization, request additional information, deny the application if it determines that the application does not provide an adequate basis for approval, or refuse to review an application that has been submitted if it determines that the application does not provide an adequate basis for filing and review.

European and Other Regulatory Approval Process

Prior to initiating clinical trials in a region outside of the United States, a clinical trial application will need to be submitted and reviewed by the appropriate regulatory authority regulating the country in which the trial will be conducted. Whether or not FDA clearance or approval has been obtained, approval of a product by comparable regulatory authorities in Europe and other countries will be necessary prior to commencement of marketing the product in such countries. The regulatory authorities in each country may impose their own requirements and may refuse to grant an approval, or may require additional data before granting it, even though the relevant product has been cleared or approved by the FDA or another authority. As with the FDA, the regulatory authorities in the European Union, or EU, and other developed countries have lengthy approval processes for pharmaceutical products. The process for gaining approval in particular countries varies, but generally follows a similar sequence to that described for FDA approval. In Europe, the European Medicine Agency, or EMA, and the European Committee for Proprietary Medicinal Products, or CPMP, provide a mechanism for EU-member states to exchange information on all aspects of product licensing. The EU has established the EMA for the evaluation of medical products, with both a centralized procedure with which the marketing authorization is recognized in all EU-member states and a decentralized procedure, the latter being based on the principle of licensing within one member country followed by mutual recognition by the other member countries.

Other Regulations

We are also subject to various and often changing federal, state, local and international laws, rules, regulations, guidelines and recommendations relating to safe working conditions, laboratory and manufacturing practices and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents.

Manufacturing

A typical sequence of steps in the manufacture of imetelstat drug product includes the following key components:

- starting materials, which are well-defined raw materials that are used to make bulk drug substance;
- bulk drug substance, which is the active ingredient in a drug product that provides pharmacological activity or other direct effect in the treatment of disease; and
- final drug product, which is the finished dosage form that contains the drug substance that is shipped to the clinic for patient treatment.

The final imetelstat drug product we use in clinical trials is produced by third-party contractors. We have no long-term commitments or commercial supply agreements with any of our imetelstat suppliers. If we are able to achieve regulatory approval in the United States or other countries to market and sell imetelstat, we intend to continue to rely on third party contractors for the production of necessary supplies. We are not planning to establish our own manufacturing capabilities.

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We currently employ a third-party strategy for production of starting materials used in the manufacture of imetelstat, as well as for production of imetelstat bulk drug substance and final drug product. These manufacturers currently provide our clinical supply requirements on a proposal-by-proposal basis under master supply agreements.

We currently have a master service agreement with a single contractor for labeling and packaging of imetelstat final drug product and for distribution of imetelstat to clinical sites in North America. In addition, we have a single contractor for release and distribution of imetelstat drug product to clinical sites in Europe. These contractors provide services on a proposal-by-proposal basis.

We have also entered into quality agreements with our imetelstat bulk drug substance and final drug product manufacturers, and our labeling, packaging and distribution service providers. The master and quality agreements are designed to ensure product quality, compliance with current Good Manufacturing Practices, or cGMP, and oversight of third parties for all critical aspects of imetelstat production, testing, release, labeling and packaging, storage and distribution.

Concentration of Revenues

In 2012, the majority of our revenues were from license fees and royalties related to our license and collaboration agreement with GE Healthcare UK, Limited, or GE Healthcare, for the development and commercialization of cellular assay products and our license agreement with Asia Biotech Corporation related to our telomerase activation technology. Upon the closing of the divestiture of our stem cell assets, the license agreement with GE Healthcare, including any future revenue payments thereunder, will be transferred to BAC. In December 2012, we assigned our telomerase activation technology to Telomerase Activation Sciences, Inc. and terminated our license agreement with Asia Biotech Corporation. Future royalty obligations by Asia Biotech Corporation under the license agreement have been terminated. We operate in one operating segment and have operations solely in the United States. Information regarding total revenues, net loss and total assets is set forth in our financial statements included in Item 8 of this Form 10-K.

Divestiture of Human Embryonic Stem Cell Assets

In January 2013, we entered into an Asset Contribution Agreement, or the Agreement, with BioTime, Inc., or BioTime, and BioTime's recently formed subsidiary, BAC, providing for the divestiture of all of our human embryonic stem cell assets, including intellectual property, proprietary technology, materials, equipment and reagents, contracts, regulatory filings, our Phase 1 clinical trial of oligodendrocyte progenitor cells, or GRNOPC1, in patients with acute spinal cord injury, and our autologous cellular immunotherapy program, including data from the Phase 2 clinical trial of the autologous immunotherapy in patients with acute myelogenous leukemia, or our stem cell assets, to BAC upon the closing of the transaction.

As consideration for the contribution of our stem cell assets to BAC, upon the closing, BAC will issue to Geron approximately 6.5 million shares of its Series A common stock, which we will distribute to our stockholders on a pro rata basis following the closing. BAC will also pay royalties to us on the sale of products that are commercialized, if any, in reliance upon our patents acquired by BAC. In addition, BioTime will contribute to BAC certain cash, stock and warrants. Some of the BioTime warrants will be distributed by BAC after the closing to the holders of BAC Series A common stock. The transaction, which is expected to close no later than September 30, 2013, is subject to negotiated closing conditions, including certain approvals by BioTime's shareholders, the effectiveness of certain registration statements to be filed by BioTime and BAC with the United States Securities and Exchange Commission, or the SEC, with respect to the securities to be distributed as contemplated by the Agreement, and other customary closing conditions.

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Prior to the closing, we are subject to certain obligations, including the obligation to exercise reasonable best efforts to preserve intact and maintain the assets to be contributed by us to BAC upon the closing of the transaction, including our intellectual property rights and patents in-licensed from third parties. If we are unable to preserve intact and maintain the assets to be contributed by us to BAC, or if BioTime or BAC are unable to satisfy their obligations with respect to the transaction contemplated by the Agreement, including the obligation to obtain the effectiveness of certain registration statements to be filed by them with the SEC, we may be unable to fully complete the transaction with BioTime and BAC, which could have a material adverse effect on our business. For additional information regarding divestiture of our stem cell assets and autologous cellular immunotherapy program, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations Discontinuation of Human Embryonic Stem Cell Programs and Divestiture of Human Embryonic Stem Cell Assets".

Stem Cell Intellectual Property

Geron played a leading role in the development of human embryonic stem cell, or hESC, technologies for more than a decade, which resulted in a portfolio of Geron-owned patents related to hESC technology. In addition to Geron-owned patents, the portfolio includes patents licensed (exclusively and non-exclusively) to us from: the Wisconsin Alumni Research Foundation, or WARF; the University of California; the University of Oxford; the University of Edinburgh; and the Robarts Research Institute of the University of Western Ontario. By way of example, our hESC portfolio, either owned or licensed, includes patents and patent applications covering methods for growing hESC cells without the need for cell feeder layers and cell types that can be made from hESCs, including progenitors of hepatocytes, or liver cells, cardiomyocytes, or heart muscle cells, neural cells, or nerve cells, including dopaminergic neurons and oligodendrocytes, chondrocytes, or cartilage cells, pancreatic islet ß cells, osteoblasts, or bone cells, hematopoietic cells, or blood-forming cells, and dendritic cells.

As part of our prior stem cell-related business activities, we initiated two patent interference proceedings involving patent rights relating to the production of endoderm cells from hESCs. In the third quarter of 2012, we received decisions from the U.S. Patent and Trademark Office Board of Patent Appeals and Interferences, or BPAI. In each case, the BPAI awarded all involved claims to the other party, ViaCyte, Inc., or ViaCyte. We have appealed the decisions of the BPAI in both interferences in a litigation proceeding brought in the United States District Court for the Northern District of California, or District Court, and ViaCyte has filed a counterclaim in the District Court, seeking affirmation of the rulings in the two interference proceedings. Upon the closing of the transaction related to divestiture of our stem cell assets described above, BAC will be substituted for Geron as a party in the appeal proceedings, and BAC will assume all liabilities arising after the closing with respect to the ViaCyte appeal. We are currently also involved in patent opposition proceedings before the Australian Patent Office in opposition to patents proposed to be granted to ViaCyte. In addition, we are involved in patent opposition proceedings before the European Patent Office for patents granted to a third-party inventor named Brustle.

Scientific Consultants

We have consulting agreements with a number of leading academic scientists and clinicians. These individuals serve as key consultants, expert witnesses, or as members of clinical advisory panels with respect to our product development programs and strategies or in legal proceedings. We use consultants to provide us with expert advice and consultation on our scientific and clinical programs and strategies, as well as on the ethical aspects of our work. They also serve as important contacts for us throughout the broader scientific community. They are distinguished scientists and clinicians with expertise in numerous scientific and medical fields, including telomere and telomerase biology, developmental biology, cellular biology, molecular biology and oncology.

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We retain each consultant according to the terms of a consulting agreement. Under such agreements, we pay them a consulting fee and reimburse them for out-of-pocket expenses incurred in performing their services for us. In addition, some consultants hold options to purchase our common stock and restricted stock awards, subject to the vesting requirements contained in the consulting agreements. Our consultants may be employed by other entities and therefore may have commitments to their employer, or may have other consulting or advisory agreements that may limit their availability to us.

Executive Officers of the Company

The following table sets forth certain information with respect to our executive officers as of January 31, 2013:

Name	Age	Position
John A. Scarlett, M.D.	62	President and Chief Executive Officer
Olivia K. Bloom	44	Senior Vice President, Finance, Chief Financial Officer and Treasurer
Stephen M. Kelsey, M.D., F.R.C.P., F.R.C.Path.	52	Executive Vice President, R&D and Chief Medical Officer
Andrew J. Grethlein, Ph.D.	48	Executive Vice President, Technical Operations and Acting Head of Research
Stephen N. Rosenfield, J.D.	63	Executive Vice President, General Counsel and Corporate Secretary
Melissa A. Kelly Behrs	49	Senior Vice President, Portfolio and Alliance Management
Craig C. Parker	51	Senior Vice President, Corporate Development

John A. Scarlett, M.D., has served as our Chief Executive Officer and a director since September 2011 and President since January 2012. Prior to joining Geron, Dr. Scarlett served as President, Chief Executive Officer and a member of the board of directors of Proteolix, Inc., a privately held, oncology-oriented biopharmaceutical company, from February 2009 until its acquisition by Onyx Pharmaceuticals, Inc., an oncology-oriented biopharmaceutical company, in November 2009. From February 2002 until its acquisition by Ipsen, S.A. in October 2008, Dr. Scarlett served as the Chief Executive Officer and a member of the board of directors of Tercica, Inc., an endocrinology-oriented biopharmaceutical company, and also as its President from February 2002 through February 2007. From March 1993 to May 2001, Dr. Scarlett served as President and Chief Executive Officer of Sensus Drug Development Corporation. In 1995, he co-founded Covance Biotechnology Services, Inc. and served as a member of its board of directors from inception to 2000. From 1991 to 1993, Dr. Scarlett headed the North American Clinical Development Center and served as Senior Vice President of Medical and Scientific Affairs at Novo Nordisk Pharmaceuticals, Inc., a wholly owned subsidiary of Novo Nordisk A/S. Dr. Scarlett received his B.A. degree in chemistry from Earlham College and his M.D. from the University of Chicago, Pritzker School of Medicine.

Olivia K. Bloom has served as our Senior Vice President and Chief Financial Officer since December 2012 and Treasurer since February 2011. Ms. Bloom previously served as our Chief Accounting Officer from September 2010 to December 2012 and Vice President from January 2007 to December 2012. Ms. Bloom joined the Company in 1994 as a Senior Financial Analyst and from 1996 to 2011 served as our Controller. Prior to Geron, Ms. Bloom started her career in public accounting at KPMG Peat Marwick and became a Certified Public Accountant in 1994. Ms. Bloom graduated Phi Beta Kappa with a B.S. in Business Administration from the University of California at Berkeley.

Stephen M. Kelsey, M.D., F.R.C.P., F.R.C.Path., has served as our Executive Vice President and Chief Medical Officer since April 2009. From June 2002 until April 2009, Dr. Kelsey held various

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positions at Genentech, Inc., a leading biotechnology company (now a member of the Roche group), most recently as vice president, clinical hematology/oncology. From June 2000 to June 2002, Dr. Kelsey was the director of clinical affairs at Pharmacia Corporation (SUGEN, Inc.) in South San Francisco and director of global clinical development (oncology) at Pharmacia Corporation, a global pharmaceutical company, in Milan, Italy. From July 1993 to June 2000, Dr. Kelsey served as a senior lecturer in hematology/oncology at St. Bartholomews and the Royal London School of Medicine and Dentistry and visiting fellow at Vancouver General Hospital and Terry Fox Laboratories. Dr. Kelsey earned his B.Sc. in Pharmacology, M.B., Ch.B., and Doctorate of Medicine (M.D.) degrees from the University of Birmingham in the United Kingdom.

Andrew J. Grethlein, Ph.D., has served as our Executive Vice President, Technical Operations since September 2012. Prior to joining Geron, Dr. Grethlein was Executive Vice President and Chief Operating Officer for Inspiration Biopharmaceuticals, a biopharmaceutical company, from January 2010 to September 2012. From October 2008 until January 2010, Dr. Grethlein was Senior Vice President of Biotechnology and Portfolio Management Team Leader for Hematology at Ipsen S.A., a global specialty pharmaceutical company. His responsibilities at Ipsen included planning and execution of worldwide strategy for product and portfolio development in the hematologic therapeutic area. From 2003 to 2008, Dr. Grethlein served as Senior Vice President of Pharmaceutical Operations at Tercica, Inc., an endocrinology-oriented biopharmaceutical company. In this role, he was a member of the senior executive team that governed corporate strategy, business planning and company operations, and had responsibility for all manufacturing and quality functions. Before joining Tercica, Dr. Grethlein served in various positions at Elan Corporation, a biotechnology company, from 1997 to 2003, including as Senior Director, South San Francisco Pharmaceutical Operations, where he had responsibility as site head for commercial manufacturing operations. From 1995 to 1997, Dr. Grethlein served as Manager, Biologics Development and Manufacturing, for Athena Neurosciences, Inc., a pharmaceutical company. Prior to this, he served in various engineering positions for the Michigan Biotechnology Institute, a nonprofit technology research and business development corporation. Dr. Grethlein received his A.A. degree in liberal arts from Simon's Rock Early College, his B.S. in biology from Bates College, and his M.S. and Ph.D. in chemical engineering from Michigan State University.

Stephen N. Rosenfield, J.D., has served as our Executive Vice President, General Counsel and Corporate Secretary since February 2012, General Counsel and Secretary since January 2012 and Secretary since October 2011. From July 2009 to February 2012, Mr. Rosenfield has been a consultant to private companies. From October 2008 until June 2009, Mr. Rosenfield was the General Counsel and Secretary of Tercica, Inc., a U.S. subsidiary of Ipsen, SA., a global specialty pharmaceutical company. From June 2004 until October 2008, Mr. Rosenfield was the General Counsel and Secretary of Tercica, Inc., an endocrinology-oriented biopharmaceutical company, from January 2006 until October 2008, he was also the Executive Vice President of Legal Affairs, and from June 2004 until January 2006, Mr. Rosenfield was the Senior Vice President of Legal Affairs. Prior to joining Tercica, Mr. Rosenfield served as the Executive Vice President of Legal Affairs, General Counsel and Secretary of InterMune, Inc., a biotechnology company focused in pulmonology and fibrotic diseases. Prior to joining InterMune, Mr. Rosenfield was an attorney at Cooley LLP, an international law firm, where he served as outside counsel for biotechnology and technology clients. Mr. Rosenfield received a B.S. from Hofstra University and a J.D. from Northeastern University School of Law.

Melissa A. Kelly Behrs has served as our Senior Vice President, Portfolio and Alliance Management since September 2012, and previously as our Senior Vice President, Strategic Portfolio Management and Product Development and Manufacturing, since May 2011. She served as Senior Vice President, Therapeutic Development, Oncology, from January 2007 until May 2011, and as Vice President, Oncology from January 2003 until January 2007. From April 2002 until January 2003, Ms. Behrs served as our Vice President, Corporate Development. From April 2001 until April 2002, Ms. Behrs served as our General Manager, Research and Development Technologies. Ms. Behrs joined us in November 1998 as Director

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of Corporate Development. From 1990 to 1998, Ms. Behrs worked at Genetics Institute, Inc., a biotechnology research and development company, serving initially as Assistant Treasurer and then as Associate Director of Preclinical Operations where she was responsible for all business development, regulatory, and project management activities for the Preclinical Development function. Ms. Behrs received a B.S. from Boston College and an M.B.A. from Babson College.

Craig C. Parker has served as our Senior Vice President, Corporate Development since December 2012. Mr. Parker was most recently Senior Vice President, Strategy and Corporate Development at Human Genome Sciences, Inc., a biopharmaceutical company focused on developing protein and antibody drugs, from August 2011 until its sale to Glaxo SmithKline in October 2012. From December 2009 to July 2011, Mr. Parker was co-founder and Chief Executive Officer of Vega Therapeutics, a drug discovery stage biotechnology start-up in the emerging field of inflammation, insulin resistance and energy balance. Before founding Vega Therapeutics, Mr. Parker was Senior Vice President of Corporate Development and Finance at Proteolix, a clinical development stage biotechnology company developing novel oncology drug candidates, from March 2009 until its sale to Onyx Pharmaceuticals in October 2009. From May 2007 to February 2009, Mr. Parker was President of DCD BioConsulting LLC, a strategic and financial advisory firm to the biotechnology industry. From 1999 to 2001, Mr. Parker served as Senior Vice President and General Manager of the Specialty Therapeutics Franchise at Immunex Corporation, a biopharmaceutical company focused in immunology, oncology and neurology. Mr. Parker's career includes 12 years as a Wall Street research analyst. From 2002 to 2007, he was a Managing Director and head of Biotechnology Equity Research at Lehman Brothers. Mr. Parker also covered the biotechnology industry as the senior biotechnology analyst at Donaldson, Lufkin & Jenrette from 1998 to 1999, and as an analyst at JP Morgan & Co. from 1994 to 1998. His additional investment experience includes serving as a Partner at Sprout Group, the venture capital affiliate of Credit Suisse Group, from 2001 to 2002. Mr. Parker received his undergraduate degree in Biological Sciences from the University of Chicago and an M.B.A. from the University of Michigan Stephen M. Ross School of Business, and attended the Georgetown University School of Medicine.

Employees

As of December 31, 2012, we had 105 employees of whom 28 held Ph.D. degrees and 30 held other advanced degrees, most of whom were engaged in full-time research and development activities. After giving effect to the restructuring we implemented on December 3, 2012, as of February 1, 2013, we had 64 full-time employees, 18 of whom held Ph.D. degrees and 18 of whom held other advanced degrees. Of this current total workforce, 43 employees were engaged in, or directly supported, our research and development activities, and 21 employees were engaged in business development, legal, finance and administration. In addition, as of February 1, 2013, we continued to employ on a full-time basis ten employees impacted by the December 2012 restructuring who are primarily facilitating the discontinuation of the GRN1005 clinical program and are separating employment with us through various dates in the first half of 2013. We also retain outside consultants. None of our employees are covered by a collective bargaining agreement; nor have we experienced work stoppages. We consider relations with our employees to be good.

Corporate Information

Geron Corporation was incorporated in the State of Delaware on November 28, 1990.

Available Information

Our internet address is www.geron.com. Information included on our website is not part of this annual report on Form 10-K. We make available free of charge on our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or

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furnished to the SEC. In addition, copies of our annual reports are available free of charge upon written request. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

ITEM 1A. 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 Form 10-K. Any of these risks could materially adversely affect our business, operating results and financial condition.

RISKS RELATED TO OUR BUSINESS

Our success largely depends on the success of our early-stage product candidate, imetelstat, and we cannot be certain that this product candidate will advance to subsequent clinical trials or receive regulatory approval on a timely basis, or at all.

Our business is at an early stage of development, and we do not yet have product candidates in late-stage, or Phase 3, clinical trials or any products commercially available. We are solely dependent on the success of one early-stage product candidate, imetelstat. Our ability to develop imetelstat to and through regulatory approval and commercial launch is subject to significant risk and uncertainty and our ability to, among other things:

- obtain clinical data to enable subsequent clinical trials;
- obtain positive data from investigator-sponsored trials of imetelstat, such as the Mayo Clinic Trial, that provide the clinical rationale for the development of imetelstat in hematologic myeloid malignancies;
- ascertain that the use of imetelstat does not result in significant liver toxicity or other significant systemic or organ toxicities;
- further refine, evaluate and successfully develop candidate assays to measure tumor telomere length on a prospective basis in order to explore the hypothesis that patients whose tumors have short telomeres may have an improved outcome when treated with imetelstat, and, if successful, subsequently commercialize a companion diagnostic test based on a refined assay;
- confirm the magnitude of the treatment effect of imetelstat in the NSCLC clinical trial patients whose tumors have short telomeres;
- determine whether NSCLC patients or patients with other cancer types that have short tumor telomere lengths are likely to have an improved outcome when treated with imetelstat;
- identify a sub-group of patients with NSCLC who have a sufficiently improved outcome when treated with imetelstat;
- develop clinical plans for, and successfully enroll and complete, potential subsequent clinical trials of imetelstat;
- collaborate successfully with clinical trial sites, academic institutions, clinical research organizations, physician investigators, including any physician investigators conducting investigator-sponsored trials of imetelstat, and other third parties;

obtain required regulatory clearances and approvals for imetelstat and any potential companion diagnostic test;

manufacture imetelstat at commercially reasonable costs;

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maintain and enforce adequate intellectual property protection for imetelstat and any potential companion diagnostic test;

maintain adequate financial resources and personnel to advance imetelstat through subsequent clinical trials; and

obtain financing on commercially reasonable terms to fund our operations.

If we are not able to successfully achieve the above-stated goals and overcome other challenges that we may encounter in the research, development, manufacturing and commercialization of imetelstat, we may be forced to abandon our development efforts for imetelstat, which would severely harm our business and could potentially cause us to cease operations.

In addition, there are many reasons why we may need to delay or abandon efforts to research, develop or obtain regulatory approvals to market imetelstat at any stage of the development process for any or all of the indications we are pursuing, or if we otherwise determine for business or financial reasons to delay or discontinue its development for any or all indications. For example, if we obtain safety results that alter the benefit-to-risk ratio with respect to patients enrolled in our ongoing Phase 2 clinical trials of imetelstat in essential thrombocythemia, or ET, and multiple myeloma, or if negative results are obtained in the Mayo Clinic Trial evaluating imetelstat in myelofibrosis, or MF, we would likely be further delayed or prevented from advancing imetelstat into further clinical development and might decide to discontinue our development of imetelstat, which would severely harm our business and prospects, and could potentially cause us to cease operations.

Imetelstat will require significant additional clinical testing prior to possible regulatory approval in the United States and other countries, and we do not expect imetelstat to be commercially available for many years, if ever. Imetelstat also may prove to have undesirable or unintended side effects or other characteristics adversely affecting its safety, efficacy or cost effectiveness that could prevent or limit its approval for marketing and successful commercial use, or that could delay or prevent the commencement and/or completion of clinical trials for imetelstat. In our Phase 1 clinical trials of imetelstat, we observed dose-limiting toxicities, including thrombocytopenia when the drug was used as a single agent, and neutropenia when the drug was used in combination with paclitaxel, as well as a low incidence of severe infusion reactions. In our Phase 2 clinical trial of imetelstat in ET, we have observed at least one abnormal laboratory liver function test, and non-laboratory test findings such as gastrointestinal events, infections, muscular and joint pain and fatigue. We may in the future observe dose-limiting toxicities or other safety issues in our ongoing Phase 2 clinical trials of imetelstat in hematologic malignancies or in the Mayo Clinic Trial. Such dose-limiting toxicities or other safety issues could delay or prevent the commencement and/or completion of our ongoing or potential subsequent clinical trials or may require us to conduct additional, unforeseen trials or to abandon our development of imetelstat entirely.

Our clinical development program for imetelstat may not lead to regulatory approval from the U.S. Food and Drug Administration, or FDA, and similar foreign regulatory agencies if we fail to demonstrate that imetelstat is safe and effective. We may therefore fail to commercialize imetelstat. Any failure to advance imetelstat to subsequent clinical trials, failure to obtain regulatory approval of imetelstat, or limitations on any regulatory approval that we might receive, would have a material and adverse impact on our business.

Our ability to generate product revenue is dependent on the successful regulatory approval and commercialization of imetelstat. Imetelstat may not prove to be more effective for treating hematologic cancers or solid tumors than current therapies. Competitors or other third parties may also have proprietary rights that prevent us from developing and marketing imetelstat, or our competitors may sell similar, superior or lower-cost products that make imetelstat unsuitable for marketing. Imetelstat also may not be able to be manufactured in commercial quantities at an acceptable cost. Any of the

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factors discussed above could delay or prevent us from developing, commercializing or marketing imetelstat, which would materially adversely affect our business and could potentially cause us to cease operations.

Success in early clinical trials may not be indicative of results obtained in subsequent clinical trials.

A number of new drugs and biologics have shown promising results in initial clinical trials, but subsequently failed to establish sufficient safety and efficacy data to obtain necessary regulatory approvals. Data obtained from preclinical and clinical activities are subject to varying interpretations, which may delay, limit or prevent regulatory approval.

Data from our preclinical studies and Phase 1 and Phase 2 clinical trials should not be relied upon as evidence that subsequent or larger-scale clinical trials will succeed. The positive results we have obtained from the first 14 patients enrolled in the Phase 2 trial of imetelstat in ET may not predict future therapeutic benefit of imetelstat in other hematologic malignancies, including MF. Although MF is one of a related group of blood cancers which includes ET, we previously have not tested imetelstat in patients with MF, and the results we obtained from the first 14 patients enrolled in the Phase 2 trial of imetelstat in ET may not be the same in MF. The known dose-limiting toxicities associated with imetelstat, such as thrombocytopenia, or reduced platelet count, and neutropenia, or reduced white blood cell count, could cause complexities in treating patients with MF.

Similarly, results from any sub-group analysis of clinical data from the Phase 2 trial of imetelstat in NSCLC may not be predictive of results for any subsequent data analysis based on additional data from the Phase 2 NSCLC trial or results obtained using a refined, prospective assay or in any subsequent clinical trials, including any trials designed to test the effect of imetelstat in subpopulations of patients having tumors with short telomeres.

We will be required to demonstrate through larger-scale Phase 3 clinical trials that imetelstat is safe and effective for use in a diverse population before we can seek regulatory approval for its commercial sale. There is typically an extremely high rate of attrition from the failure of drug candidates proceeding through clinical trials. If we are unable to develop imetelstat into Phase 3 clinical trials, our business may fail.

Any further development of imetelstat in solid tumors with short telomeres is dependent upon confirmation of the magnitude of the treatment effect of imetelstat in NSCLC patients whose tumors have short telomeres, and our ability to refine or validate a telomere length assay and to obtain any rights to third-party intellectual property that may be necessary for commercial use.

We are evaluating the impact of the recent updated sub-group analysis conducted in March 2013 on our plans for potential development of imetelstat in solid tumors, including NSCLC. Further development of imetelstat for tumors with short telomeres, if pursued, will require confirmation of the magnitude of the treatment effect of imetelstat in the NSCLC clinical trial patients whose tumors have short telomeres, refinement of a telomere length assay and validation of a refined assay for use as a clinical diagnostic assay that will prospectively measure tumor telomere length in individual patient tumor samples. There can be no assurance that we will be able to confirm the magnitude of the treatment effect or refine or validate any telomere length assay for use in subsequent clinical trials. In addition, our ability to commercially use a refined, validated telomere length assay may depend on our ability to obtain rights to any third-party intellectual property that may be necessary to provide freedom to operate.

Our research and development programs are subject to numerous risks and uncertainties.

The science and technology of telomere biology, telomerase and our proprietary oligonucleotide chemistry are relatively new. There is no precedent for the successful commercialization of a

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therapeutic product candidate based on these technologies. We must undertake significant research and development activities to develop product candidates based on these technologies, which will require significant additional funding and may take years to accomplish, if ever.

Because of the significant scientific, regulatory and commercial milestones that must be reached for any of our research and development programs to be successful, any program, or any aspect of a program, may be delayed or abandoned, even after we have expended significant resources on it. Our decisions to discontinue our Phase 2 clinical trial of imetelstat in MBC and our development of GRN1005 are examples of this. Any further delay or abandonment of our development of imetelstat would have a material adverse effect on, and may result in the failure of, our business.

If we are not able to fully complete the divestiture of our stem cell assets, our stock price may decline and our business may be adversely affected.

In January 2013, we entered into an Asset Contribution Agreement, or the Agreement, with BioTime, Inc., or BioTime, and BioTime's recently formed subsidiary, BioTime Acquisition Corporation, or BAC, providing for the divestiture of our stem cell assets and autologous cellular immunotherapy program to BAC upon the closing of the transaction. As consideration for the contribution of our stem cell assets to BAC, upon the closing, BAC will issue to Geron approximately 6.5 million shares of its Series A common stock, which we will distribute to our stockholders on a pro rata basis. Aside from the distribution of shares to our stockholders and potential royalties that we may receive on the sale of products that are commercialized, if any, in reliance upon our patents acquired by BAC, we will not receive any consideration for these assets. The transaction, which is expected to close no later than September 30, 2013, is subject to negotiated closing conditions, including certain approvals by BioTime's shareholders, the effectiveness of certain registration statements to be filed by BioTime and BAC with the United States Securities and Exchange Commission, or SEC, with respect to the securities to be distributed as contemplated by the Agreement, and other customary closing conditions. Prior to the closing, we are subject to certain obligations, including the obligation to exercise reasonable best efforts to preserve intact and maintain the assets to be contributed by us to BAC upon the closing of the transaction. If we are unable to preserve intact and maintain the assets to be contributed by us to BAC, or if BioTime or BAC are unable to satisfy their obligations with respect to the transaction contemplated by the Agreement, including the obligation to obtain the effectiveness of certain registration statements to be filed by them with the SEC, we may be unable to fully complete the transaction with BioTime and BAC, which could have a material adverse effect on our business.

In addition, our ability to preserve intact and maintain the assets to be contributed by us to BAC depends on our ability to maintain license agreements with third parties covering critical technologies related to our stem cell portfolio. These license agreements impose certain obligations on us, including obligations to diligently pursue development of stem cell products under the licensed patents. As a result of our discontinuation of further development of our stem cell programs in November 2011, our licensors 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, which could impair our ability to complete the divestiture of our stem cell assets to BAC.

Our agreement to contribute our stem cell assets and autologous cellular immunotherapy program to BAC provides for indemnification by us of BioTime against all losses and expenses relating to breaches of our representations, warranties and covenants. Furthermore, any failure or inability by us to contribute our stem cell assets to BAC, as contemplated under the Agreement, could expose us to a number of risks, including declines or fluctuations in our stock price, potential limitations on our ability to execute strategic alternatives concerning our stem cell programs and/or to clarify or resolve intellectual property matters relating to our stem cell assets, the incurrence of additional advisor and legal fees, and the impact of any distraction caused by the activities in connection with closing this transaction on our management. The occurrence of any one or more of the above could have an

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adverse impact on our business and financial condition, as well as our ability to fully complete the divestiture of our stem cell assets to BAC, or at all.

Some of our investors purchased shares of our common stock because they were interested in the opportunities presented by our human embryonic stem cell programs. Thus, certain stockholders may attribute substantial financial value to our stem cell assets. If our stockholders believe that the Agreement with BioTime and BAC for the divestiture of our stem cell assets does not provide the financial value that our stockholders may attribute to our stem cell assets, our stock price may decline and litigation may occur.

RISKS RELATED TO CLINICAL AND COMMERCIALIZATION ACTIVITIES

Our ability to complete clinical trials of imetelstat on a timely basis is subject to risks and uncertainties related to factors such as investigator sponsors, patient enrollment, drug supply and regulatory approval.

Delays or terminations of clinical trials and of investigator-sponsored trials could be caused by matters such as:

- poor effectiveness of imetelstat during clinical trials;
- unforeseen safety issues or side effects;
- disruptions due to drug supply or quality issues;
- failure by independent physicians conducting investigator-sponsored trials of imetelstat to timely commence, complete or report data from such investigator-sponsored trials;
- not receiving timely regulatory clearances or approvals, including, for example, acceptance of new manufacturing specifications or procedures or clinical trial protocol amendments by regulatory authorities;
- not receiving timely institutional review board or ethics committee approval of clinical trial protocols or protocol amendments;
- delays in patient enrollment due to size and nature of patient population, nature of protocols, proximity of patients to clinical sites, availability of effective treatments for the relevant disease and eligibility criteria for the trial;
- unavailability of any study-related treatment (including comparator therapy);
- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays;
- unanticipated issues with key vendors of clinical services, such as contract research organizations; or
- governmental or regulatory delays and changes in regulatory requirements, policies and guidelines.

Our enrollment goals for clinical trials may not be met. For example, we discontinued our Phase 2 trial of GRN1005 in brain metastases arising from NSCLC because of enrollment challenges, and our enrollment in our ongoing Phase 2 trials of imetelstat in multiple myeloma and ET was slower than expected. In addition, our inability to retain, or the inability of independent physicians conducting investigator-sponsored

trials of imetelstat to retain patients who have enrolled in a clinical trial but may be prone to withdraw due to side effects from the therapy, lack of efficacy or personal issues, or who are lost to further follow-up, could result in clinical trial delays or our inability to complete clinical trials. Further, some of our clinical trials may be overseen by an internal safety monitoring committee, or ISMC, and an ISMC may determine to delay or suspend one or more of these trials due to safety or futility findings based on events occurring during a clinical trial. Delays in timely completion of clinical

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testing of imetelstat, in clinical trials conducted by us or by independent clinical investigators, could increase research and development costs and could prevent or would delay us from obtaining regulatory approval for imetelstat, both of which would likely have a material adverse effect on our business. For example, a delay in the timely completion of or reporting of data from the Mayo Clinic Trial to evaluate the safety and efficacy of imetelstat in patients with MF could have a material adverse effect on our ability to further develop imetelstat or to advance imetelstat to subsequent clinical trials.

Delays in the initiation of or our inability to initiate subsequent clinical trials of imetelstat could result in increased costs to us and would delay our ability to generate or prevent us from generating revenues.

The commencement of subsequent clinical trials for imetelstat could be delayed or abandoned for a variety of reasons, including as a result of failures or delays in:

- commencement, enrollment or completion of clinical trials conducted by physician investigators conducting investigator-sponsored trials, or failure by independent physician investigators to promptly report data from such trials;
- demonstrating sufficient safety and efficacy in Phase 2 clinical trials conducted by us or by independent clinical investigators to obtain regulatory clearance to commence subsequent clinical trials;
- obtaining sufficient funding;
- manufacturing sufficient quantities of drug;
- producing drugs that meet the quality standards of the FDA and other regulatory agencies;
- ensuring our ability to manufacture drugs at acceptable costs for Phase 3 clinical trials and commercialization;
- obtaining clearance or approval of a proposed trial design or manufacturing specifications from the FDA and other regulatory authorities;
- reaching agreement on acceptable terms with our collaborators on all aspects of the clinical trial, including the contract research organizations and the trial sites; and
- obtaining institutional review board or ethics committee approval to conduct a clinical trial at a prospective site.

The occurrence of any of these events could adversely affect our ability to initiate subsequent clinical trials, which would have a material adverse effect on our business.

We may not be able to manufacture imetelstat at costs or scales necessary to conduct our clinical programs or potential future commercialization activities.

Imetelstat is likely to be more expensive to manufacture than most other treatments currently available today or that may be available in the future. The commercial cost of manufacturing imetelstat will need to be significantly lower than our current costs in order for imetelstat to become a commercially successful product. Oligonucleotides are relatively large molecules produced using complex chemistry, and the cost of manufacturing an oligonucleotide like imetelstat is greater than the cost of making typical small-molecule drugs. Our present imetelstat manufacturing processes are conducted at a relatively modest scale appropriate for our ongoing Phase 2 clinical trials. Accordingly, we may not be able to achieve sufficient scale increases or cost reductions necessary for successful commercial production of imetelstat. Additionally, given the complexities of our manufacturing processes, the resulting costs that we incur to conduct our clinical trials may be higher than would be anticipated for other comparable treatments, requiring us to expend relatively larger amounts of cash to complete our clinical trials, which would

negatively impact our financial condition and could increase our need for additional capital.

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Manufacturing imetelstat is subject to process and technical challenges and regulatory risks.

We face numerous risks and uncertainties with regard to manufacturing imetelstat. Regulatory requirements for product quality of oligonucleotide products are less well-defined than for small-molecule drugs, and there is no guarantee that we will achieve sufficient product quality standards required for Phase 3 clinical trials or for commercial approval and manufacturing of imetelstat. Changes in our manufacturing processes or formulations for imetelstat that may be made during later stages of clinical development, including during Phase 3 trials, may result in regulatory delays, the need for further clinical trials, rejection of a marketing application, or limitation on marketing authorization by regulatory authorities, which would result in a material adverse effect on our business.

We do not have experience as a company in conducting large-scale, Phase 3 clinical trials, or in those areas required for the successful commercialization of imetelstat.

We have no experience as a company in conducting large-scale, Phase 3 clinical trials. We cannot be certain that any large-scale, Phase 3 clinical trials will begin or be completed on time, if at all. Large-scale, Phase 3 clinical trials will require successful Phase 2 data, additional financial and management resources and reliance on third-party clinical investigators, clinical research organizations and consultants. Relying on third-party clinical investigators or clinical research organizations may cause delays that are outside of our control. Any such delays could have a material adverse effect on our business.

We also do not have commercialization capabilities for imetelstat, and we will need to establish sales, marketing and distribution capabilities or establish and maintain agreements with third parties to market and sell imetelstat. Developing internal sales, marketing and distribution capabilities is an expensive and time-consuming process. We may not be able to enter into third-party marketing and distribution agreements on terms that are economically attractive, or at all. Even if we do enter into such agreements, these third parties may not successfully market or distribute imetelstat, which may materially harm our business.

Obtaining regulatory approvals to market imetelstat 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 imetelstat.

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, from successfully conducting our development efforts or from commercializing imetelstat. The regulatory process, particularly for a biopharmaceutical product candidate like imetelstat, is uncertain, can take many years and requires the expenditure of substantial resources.

Prior to submission of any regulatory application seeking approval to commence commercial sales of imetelstat, we will be required to conduct extensive preclinical and clinical testing. In particular, human pharmaceutical therapeutic product candidates are subject to rigorous requirements of the FDA in the United States and similar health and regulatory authorities in other countries in order to demonstrate safety and efficacy. Data obtained from preclinical and clinical activities are susceptible to varying interpretations that could delay, limit or prevent regulatory agency approvals. For example, positive safety and efficacy data from our ongoing Phase 2 clinical trials of imetelstat in ET, may not provide sufficient rationale for us to proceed to, or otherwise enable us to obtain regulatory clearance for, a Phase 3 clinical trial. In addition, delays or rejections of regulatory approvals, or limitations in marketing authorizations, may be encountered as a result of changes in regulatory environment or 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. We do not expect to receive regulatory approvals for imetelstat for many years, if at all.

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Imetelstat and any future potential product candidate that we 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 imetelstat involves the application of new technologies and a new therapeutic approach, it may be subject to substantial additional review by various government regulatory authorities, and, as a result, the process of obtaining regulatory approvals for imetelstat may proceed more slowly than for product candidates based upon more conventional technologies, and any approval that we may receive could limit the use of imetelstat.

Delays in obtaining regulatory agency approvals or limitations in the scope of such approvals could:

- significantly harm the marketing of any products that we develop;
- impose costly procedures upon our activities;
- diminish any competitive advantages that we 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 imetelstat or any future potential product candidates developed by us. If we obtain regulatory agency approval for a new product, this approval may entail limitations on the indicated uses or other aspects of the product label for which it can be marketed that could limit the potential commercial use of the product. The occurrence of any of these events could materially adversely affect our business.

Failure to achieve continued compliance with government regulation over our products, if any, 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 of any commercially viable product will be subject to government regulation related to numerous matters, 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 from product sales 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.

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RISKS RELATED TO OUR FINANCIAL POSITION AND NEED FOR ADDITIONAL FINANCING

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

We have incurred operating losses every year since our operations began in 1990. As of December 31, 2012, our accumulated deficit was approximately $854.4 million. Losses have resulted principally from costs incurred in connection with our research and development activities and from general and administrative costs associated with our operations. We expect to incur additional operating losses 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 milestones, royalties and other revenues from our licensing arrangements. We may be unsuccessful in entering into any new corporate collaboration or license agreements that result in revenues. Revenues generated from these arrangements will not be sufficient alone to continue or expand our research or development activities and otherwise sustain our operations.

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 and our ability to sustain operations. Even if we do become profitable, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We will need substantial additional capital to conduct our operations and develop imetelstat, and our ability to obtain the necessary funding is uncertain.

We will require substantial capital resources in order to conduct our operations and develop imetelstat, and we cannot assure you that our existing capital resources, equipment financing arrangement, future interest income and potential sales of our common stock, including pursuant to our At-The-Market Issuance Sales Agreement with MLV & Co. LLC, 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 2013 and beyond;
- changes in our clinical development plans for imetelstat;
- our ability to meaningfully reduce manufacturing costs of imetelstat;
- the magnitude and scope of our research and development programs, including the number and type of product candidates and indications we intend to pursue;
- the progress we make in our research and development programs, preclinical development and clinical trials, as well as in investigator-sponsored trials;
- our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;
- our ability to fully complete the divestiture of our stem cell assets to BAC;
- the time and costs involved in obtaining regulatory clearances and approvals; and

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims.

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In addition, changes in our business may occur that would consume available capital resources sooner than we expect. 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. In addition, we may raise equity capital at a stock price or on other terms that could result in substantial dilution of ownership for our stockholders. 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. In particular, since the latter half of 2008, the global economy has been impacted by the sequential effects of an ongoing global financial crisis. This global financial crisis, including the European sovereign debt crisis, has resulted in greatly increased market uncertainty and instability in both U.S. and international capital and credit markets, which may make it more difficult to raise equity and debt financing when we need it. In addition, our ability to raise additional funds may be severely impaired if our product candidate, imetelstat, fails to show adequate safety or efficacy in ongoing or potential subsequent clinical trials.

Further, in the event that we obtain additional funds through arrangements with collaborative partners, these arrangements may require us to relinquish rights to some of our technologies, imetelstat or potential future product candidates 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, suspend or eliminate one or more of our programs, any of which could have a material adverse effect on our business.

RISKS RELATED TO PROTECTING OUR INTELLECTUAL PROPERTY

Our success will depend on our ability to protect our technologies and our product candidate, imetelstat, through patents and other intellectual property rights and to operate without infringing the rights of others.

Protection of our proprietary technology is critically important to our business. Our success will depend in part on our ability to obtain, enforce and extend our patents and maintain trade secrets, both in the United States and in other countries. If we are unsuccessful in either of these regards, the value of our technologies and imetelstat will be adversely affected and we may be unable to continue our development work. By way of example, we do not yet have issued compound patents for imetelstat in Europe after 2020. 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 or our licensors are unsuccessful in obtaining and enforcing patents, we may not be able to further develop or commercialize imetelstat and our business would be negatively impacted.

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

In addition, on September 16, 2011, the Leahy-Smith America Invents Act, or the AIA, was signed into law. The AIA includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications will be prosecuted and may affect patent litigation. The United States Patent Office has developed new and untested regulations and procedures to govern the full implementation of the AIA. Many of the substantive changes to patent law associated with the AIA, and in particular, the first to file provisions, will become effective on or after March 16, 2013. For example, under the AIA, patent rights are awarded to the first inventor to file a patent application with respect to a particular invention. Thus, after March 16, 2013, our ability to protect our patentable

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intellectual property will depend, in part, on our ability to be the first to file patent applications with respect to our inventions. Delay in the filing of a patent application for any purpose, including further development or refinement of an invention, may result in the risk of loss of patent rights. The AIA and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

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. If we infringe the patents of others, we may be blocked from continuing development work or be required to obtain licenses on terms that may impact the value of imetelstat.

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

Our patents may be challenged through administrative or judicial proceedings. Such proceedings are typically lengthy and complex, and an adverse decision can result in the loss of important patent rights. For example, where more than one party seeks U.S. patent protection for the same technology, the U.S. Patent and Trademark Office, or 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. Our pending patent applications, or our issued patents, may be drawn into interference proceedings or be challenged through post-grant review procedures, which may delay or prevent the issuance of patents, or result in the loss of issued patent rights.

Under the AIA, interference proceedings will be eliminated for patent applications filed on or after March 2013, to be replaced with other types of proceedings, including derivation proceedings. The AIA also includes post-grant review procedures subjecting U.S. patents to post-grant review procedures similar to European oppositions. U.S. patents owned or licensed by us may therefore be subject to post-grant review procedures, as well as other forms of review and re-examination. A decision in such proceedings adverse to our interests could result in the loss of valuable patent rights and negatively impact our business.

Certain jurisdictions, such as Europe, New Zealand and Australia, permit oppositions to be filed against granted patents or patents proposed to be granted. 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 several patent oppositions before the European Patent Office, or EPO, with a series of companies (GemVax, Pharmexa and KAEL-GemVax) developing GV1001, a cancer vaccine that employs a short telomerase peptide to induce an immune response against telomerase. The rights to GV1001 passed from GemVax, a Norwegian company, to Pharmexa, a Danish company, as a result of a 2005 acquisition. In late 2008, Pharmexa reported that it sold its telomerase vaccine program to a Korean company, KAEL Co. Ltd., and the continuing company now operates under the name KAEL-GemVax. A Phase 3 clinical trial of GV1001 in pancreatic cancer is underway. Pharmexa originally obtained a European patent with broad claims to the use of telomerase vaccines for the treatment of cancer, and we opposed that patent in 2004. In 2005, the Opposition Division, or 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. This decision was upheld by the Technical Board of Appeals, or TBA. In

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August 2007, KAEL-GemVax was granted a further related European patent covering its telomerase peptide vaccine against which we have filed an opposition. KAEL-GemVax was recently granted a third European patent covering telomerase peptide vaccines against which we have also filed an opposition. These two oppositions are ongoing, and we cannot predict their outcomes or any potential subsequent appeal of the decision in the oppositions.

In parallel, Pharmexa opposed a European patent held by us, 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 our patent, specifically the three claims covering telomerase peptide cancer vaccines. The remaining 47 claims were upheld, and that decision was affirmed by the TBA. We have now been awarded a second European patent with claims to telomerase peptides, and this patent has also been opposed by KAEL-GemVax. We believe that GV1001 is covered by our telomerase patents and our goal in these proceedings is to maintain strong patent protection that will enable us to enter into a licensing arrangement with KAEL-GemVax that could result in commercial benefit for us if GV1001 is successfully commercialized; however, we may not be able to maintain that protection or enter into such a licensing arrangement on commercially reasonable terms, if at all. 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.

As more groups become engaged in scientific research and product development in the areas of telomerase biology, the risk of our patents or patents that we have in-licensed being challenged through patent interferences, derivation proceedings, oppositions, re-examinations, litigation or other means will likely increase. Challenges to our patents through these procedures can be extremely expensive and time-consuming, even if the outcome is favorable to us. An adverse outcome in a patent dispute could severely harm our business by:

causing us to lose patent rights in the relevant jurisdiction(s);

subjecting us to litigation, or otherwise preventing us from commercializing imetelstat 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.

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 imetelstat.

Our technologies may infringe the patents or proprietary rights of others. In addition, we may become aware of discoveries and technologies 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 technologies controlled by third parties, we may be prevented from pursuing research, development or commercialization of imetelstat, 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 development of imetelstat and future product candidates, and we initiate negotiations for licenses to other technologies as the need or opportunity arises. We may not be able to obtain a license to

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patented technology on commercially favorable terms, or at all, or our licenses may be terminated on certain grounds, including as a result of our failure to comply with our obligations under such licenses. If we do not obtain a necessary license or if such a license is terminated, we may need to redesign our technologies or obtain rights to alternate technologies, the research and adoption of which could cause delays in our product development efforts. In cases where we are unable to license necessary technologies, we could be subject to litigation and prevented from developing imetelstat or any other product candidates. Our failure to obtain alternative technologies or a license to any technology that we may require to research, develop or commercialize imetelstat or other product candidates would significantly and negatively affect our business. By way of example, we are aware of at least one entity that is seeking to obtain patent claims that may, if granted, be argued to read on imetelstat. While such claims have not been issued, and may not be valid if they do issue, we expect that as imetelstat continues to progress in development, we will see more efforts by others to obtain patents that are positioned to cover imetelstat. Our success depends significantly on our ability to operate without infringing patents and the proprietary rights of others.

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 provide assurance 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.

Our ability to successfully complete the divestiture of our stem cell assets depends at least in part on our ability to maintain our stem cell-related intellectual property.

We developed an extensive portfolio of Geron-owned patent filings covering our prior development of human embryonic stem cell technologies, as well as patents that we licensed from other parties. This intellectual property is a substantial component of the stem cell assets that we have agreed to divest to BioTime and BAC. Our ability to successfully complete the divestiture of our stem cell assets will depend in part on our ability to maintain the scope and term of the patents in our stem cell patent portfolio. Legal developments and proceedings that may impact our stem cell patent portfolio and ability to successfully complete the divestiture of our stem cell program include:

European court ruling: In 2011, the European Court of Justice, or ECJ, rendered a decision in a case known as Brüstle v. Greenpeace that is widely viewed to have effectively abolished the ability to enforce patents on human embryonic stem cell technologies in member states of the European Union, or EU.

Patent interferences: Two of our patent applications covering the production of endoderm from human embryonic stem cells (part of the process for making pancreatic islet cells) are involved in interferences with a patent held by ViaCyte. A decision was handed down by the U.S Patent and Trademark Office Board of Patent Appeals and Interferences, or BPAI, in the first interference in July 2012, awarding all claims to ViaCyte. In August 2012, the BPAI ruled that its decision in the first interference was binding in the second interference because the involved claims of the patent application in the second interference were patentably indistinct from the claims of the patent in the first interference, and awarded all involved claims to ViaCyte. In September 2012, we appealed the decision of the BPAI in both interferences in a litigation proceeding brought before the District Court, and in September 2012, ViaCyte filed a counterclaim in the District Court, seeking affirmation of the rulings in the two interference

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proceedings and seeking costs and attorneys' fees in the District Court litigation and the two interference proceedings. At this time, we cannot predict the outcome of the appeal or the timing for resolution of the appeal to the District Court. The outcome of the District Court litigation could include judgments against us upholding or expanding the interference ruling. Upon the closing of the divestiture of the stem cell assets, BAC will be substituted for us as a party in these appeal proceedings.

Re-examinations: 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 the Wisconsin Alumni Research Foundation, or WARF. These three patents (U.S. Patent Nos. 5,843,780, 6,200,806 and 7,029,913) are licensed to us pursuant to a January 2002 license agreement which conveys exclusive rights to us under the WARF patents for the development and commercialization of therapeutics based on neural cells, cardiomyocytes and pancreatic islet cells, derived from human embryonic stem cells, as well as non-exclusive rights for other product opportunities. After initially rejecting the patent claims, the Patent Office issued decisions in all three cases upholding the patentability of the claims as amended. The decisions to uphold the 5,843,780 and 6,200,806 patents are final and not subject to further appeal. Consumer Watchdog appealed the decision on the 7,029,913 patent and, in April 2010, the BPAI reversed the earlier decision of the Patent Office on the 7,029,913 patent and remanded the case back to the Patent Office for further prosecution. In November 2011, the Patent Office again upheld the patentability of the claims. On January 22, 2013, the BPAI withdrew its rejection and affirmed the examiner's decision confirming the patentability of claims 1-3 of the 7,029,913 patent. The case could be subject to further appeal.

RISKS RELATED TO OUR RELATIONSHIPS WITH THIRD PARTIES

We depend on other parties to help us develop and test imetelstat, and our ability to develop and commercialize imetelstat may be impaired or delayed if collaborations are unsuccessful.

Our strategy for the development, clinical testing and commercialization of imetelstat requires that we enter into collaborations with clinical research organizations, vendors, corporate partners, licensors, licensees or others. We are dependent upon the ability of these parties to perform their responsibilities reliably. By way of example, we have contracted with two clinical research organizations that are primarily responsible for the execution of clinical site related activities for our ongoing imetelstat Phase 2 clinical trials, including clinical trial site monitoring activities. In addition, for our imetelstat program, we have contracted with a single vendor to develop and maintain the clinical database and a single vendor to maintain our safety database.

Accordingly, if the performance of these services is not of the highest quality, or does not achieve necessary regulatory compliance standards, or if such organization or vendor stops or delays its performance for any reason, it would impair and delay our ability to report data from our clinical trials and make the necessary representations to regulatory authorities, if at all. In addition, licensors or licensees could terminate their agreements with us, and we may not receive any development or milestone payments. If we do not achieve milestones or perform diligence obligations set forth in agreements that we have entered with others, or if our licensors or licensees breach or terminate their agreements with us, our business may be materially harmed.

We are providing imetelstat for the conduct of the Mayo Clinic Trial to evaluate the safety and efficacy of imetelstat in patients with MF. Because this is not a Geron-sponsored trial, the clinical testing of imetelstat through this investigator-sponsored trial requires us to rely on the investigator's design and conduct of the trial. In addition, we do not have control over the timing and reporting of the data from this trial.

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Our ability to manufacture imetelstat is uncertain because we must rely on third parties for manufacturing.

We rely on other companies for certain process development, supply of starting materials, manufacturing or other technical and scientific work with respect to imetelstat, but we do not have direct control over their personnel or operations. If these companies do not perform the work which they were assigned or do not complete the work within the expected timelines, or if they choose to exit the business, our ability to develop or manufacture imetelstat could be significantly harmed. For example, we may need to change one or more of our suppliers due to these or other reasons and the change could lead to delays in drug supply. In addition, we have not established long-term supply agreements for imetelstat.

In addition, our manufacturers may need to make substantial investments to enable sufficient capacity increases and cost reductions, and to implement those regulatory and compliance standards necessary for successful Phase 3 trials and commercial production. Our manufacturers may not be able to achieve such capacity increases, cost reductions, or regulatory and compliance standards, and even if they do, such achievements may not be at a commercially reasonable cost to us.

There are other risks and uncertainties that we face with respect to manufacturing. For example, we currently have an agreement with only a single contractor for distribution of imetelstat final drug product to clinical sites in North America. As another example, certain commonly used reagents and solvents can experience market shortages and, if these shortages occur, they may adversely impact our ability to manufacture imetelstat.

Our failure to meet our obligations under license agreements could result in us losing rights to key technologies required to complete the divestiture of our stem cell assets.

Our ability to complete the divestiture of our stem cell assets 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 these or other obligations under a license agreement, including as a result of our discontinuation of further development of our stem cell programs, 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, any of which could impair our ability to complete the divestiture of our stem cell assets.

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

We rely extensively upon and have relationships with scientific consultants and contractors at academic and other institutions. Some of our scientific consultants and contractors conduct research at our request, and others assist us in formulating our research and development and clinical strategy or other matters. These consultants and contractors 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 contractors 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 academic and other research institutions throughout the world. These research facilities may have commitments to other commercial and non-commercial entities. We have limited control over the operations of these laboratories and can expect only limited amounts of their time to be dedicated to our research goals.

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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 imetelstat, could be significantly harmed.

RISKS RELATED TO OUR COMMON STOCK AND FINANCIAL REPORTING

Historically, our stock price has been extremely volatile.

Historically, our stock price has been extremely volatile. Between January 1, 2003 and December 31, 2012, our stock has traded as high as $16.80 per share and as low as $0.91 per share. Between January 1, 2010 and December 31, 2012, the price has ranged between a high of $6.67 per share and a low of $0.91 per share. The significant market price fluctuations of our common stock have been due to and may in the future be influenced by a variety of factors, including:

- announcements regarding our clinical trial results or delays in our clinical trials, or investigator-sponsored trials, of imetelstat;
- announcements regarding the safety of imetelstat;
- announcements regarding our plans to discontinue certain programs and trials;
- announcements regarding new research and development programs;
- announcements regarding our evaluation of the recent updated sub-group analysis with regard to the magnitude of the treatment effect of imetelstat in NSCLC patients whose tumors have short telomeres and the impact of the updated evaluation on our plans for potential development of imetelstat in solid tumors, including NSCLC;
- our ability to refine a tumor telomere length assay to prospectively measure tumor telomere length in individual patient tumor samples, if we continue development of imetelstat in solid tumors after our evaluation of the recent updated sub-group analysis;
- our ability to develop and commercialize a telomere length assay as a companion diagnostic test, if we continue development of imetelstat in solid tumors after our evaluation of the recent updated sub-group analysis;
- our ability to obtain any rights from third parties which may be necessary to enable us to commercially use a refined assay for prospectively measuring tumor telomere length in individual patient tumor samples;
- our ability to successfully complete the divestiture of our stem cell assets to BAC, or perception by our stockholders about the adequacy of the consideration to be received for such divestiture;
- the demand in the market for our common stock;
- the experimental nature of imetelstat;

fluctuations in our operating results;

our declining cash balance as a result of operating losses;

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;

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general market conditions;

the issuance of common stock to partners, vendors or to investors to raise additional capital; and

the occurrence of any other risks and uncertainties discussed in this Item 1A, "Risk Factors".

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. Since the latter half of 2008, broad distress in the financial markets and the economy has resulted in greatly increased market uncertainty and instability in both U.S. and international capital and credit markets. These conditions, combined with the European sovereign debt crisis, declining business and consumer confidence and high unemployment have recently contributed to substantial market volatility. In addition to other risk factors described in this section, 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.

If we fail to meet continued listing standards of NASDAQ, our common stock may be delisted, which could have a material adverse effect on the liquidity of our common stock.

Our common stock is currently traded on the Nasdaq Global Select Market. The NASDAQ Stock Market LLC has requirements that a company must meet in order to remain listed on NASDAQ. In particular, NASDAQ rules require us to maintain a minimum bid price of $1.00 per share of our common stock. If the closing bid price of our common stock were to fall below $1.00 per share for 30 consecutive trading days or we do not meet other listing requirements, we would fail to be in compliance with NASDAQ's listing standards. There can be no assurance that we will continue to meet the minimum bid price requirement, or any other requirement in the future. If we failed to meet the minimum bid price requirement, The NASDAQ Stock Market LLC may initiate the delisting process with a notification letter. If we were to receive such a notification, we would be afforded a grace period of 180 calendar days to regain compliance with the minimum bid price requirement. In order to regain compliance, shares of our common stock would need to maintain a minimum closing bid price of at least $1.00 per share for a minimum of 10 consecutive trading days. If our common stock were to be delisted, the liquidity of our common stock would be adversely affected and the market price of our common stock could decrease.

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

Securities-related class action litigation has often been brought against companies, including many biotechnology companies, which experience volatility in the market price of their securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies often experience significant stock price volatility in connection with their product development programs. If the results of our business activities are not successful, including without limitation, if:

the results of the Mayo Clinic Trial evaluating imetelstat in MF, or any subsequent clinical trial of imetelstat, are not deemed to be successful;

we ascertain that the use of imetelstat results in significant liver toxicity or other significant systemic or organ toxicities;

we conclude, based on our evaluation of the recent updated sub-group analysis from our Phase 2 trial of imetelstat in NSCLC, to discontinue development of imetelstat in solid tumors, including NSCLC, or if we proceed with such development and are unable to develop an assay to prospectively measure telomere length in individual patient tumor samples or identify tumor

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types with short telomere length that may have an improved outcome when treated with imetelstat;

we are unable to fully complete the divestiture of our stem cell assets to BAC;

our stockholders believe the consideration to be received for such divestiture to be inadequate; or

our discovery research program is unable to produce new product candidates,

our stock price would likely decline, and may result in litigation. A decision adverse to our interests in any such lawsuit could result in the payment of substantial damages by us, and could have a material adverse effect on our cash flow, results of operations and financial position.

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. In addition, the conduct of clinical trials, including our ongoing and any subsequent clinical trials of imetelstat, and our discontinued trials of GRN1005, are inherently risky and may expose us to liability for matters such as patient injury or death, or for any failure to meet regulatory and compliance requirements. Monitoring, initiating and defending against legal actions are time-consuming for our management, are likely to be expensive and may detract from our ability to fully focus our internal resources on our business activities. 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. In addition, the inherent uncertainty of such litigation could lead to increased volatility in our stock price and a decrease in the value of your investment in our common stock.

The sale of a substantial number of shares may adversely affect the market price of our common stock.

The sale of a substantial number of shares of our common stock in the public market, or the perception that such sales could occur, could significantly and negatively affect the market price of our common stock. As of December 31, 2012, we had 300,000,000 shares of common stock authorized for issuance and 130,242,695 shares of common stock outstanding. In addition, as of December 31, 2012, we had reserved approximately 33,344,942 shares of common stock for future issuance pursuant to our option and equity incentive plans and outstanding warrants. Issuing additional shares could negatively affect the market price of our common stock and the return on your investment.

Future sales of our common stock, including pursuant to our At-The-Market Issuance Sales Agreement with MLV & Co. LLC, or the issuance of common stock to satisfy our current or future cash payment obligations or to acquire technology, property, or other businesses, could cause immediate dilution and adversely affect the market price of our common stock. In addition, under the universal shelf registration statement filed by us in July 2012 and declared effective by the SEC in October 2012, we may sell any combination of common stock, preferred stock, debt securities and warrants in one or more offerings, up to a cumulative value of $200 million. The sale or issuance of our securities, as well as the existence of outstanding options and shares of common stock reserved for issuance under our option and equity incentive plans and outstanding warrants also may adversely affect the terms upon which we are able to obtain additional capital through the sale of equity securities.

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Our undesignated preferred stock may inhibit potential acquisition bids; this may adversely affect the market price of our common stock and the voting rights of 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. The issuance of shares of preferred stock may delay or prevent a change in control transaction without further action by our stockholders. As a result, the market price of our common stock may be adversely affected.

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

Provisions in our charter, bylaws and 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.

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 our Board of Directors.

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, or Section 404, requires that we establish and maintain an adequate internal control structure and procedures for financial reporting. Our annual reports 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 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

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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.

RISKS RELATED TO COMPETITIVE FACTORS

The loss of key personnel could slow our ability to conduct research and develop imetelstat and potential future product candidates, if any.

Our future success depends to a significant extent on the skills, experience and efforts of our executive officers and key members of our clinical and scientific staff. We face intense competition for qualified individuals from numerous pharmaceutical, biopharmaceutical and biotechnology companies, as well as academic and other research institutions. The restructurings we implemented in 2011 and 2012 could have an adverse impact on our ability to retain and recruit qualified personnel. 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.

Some of our competitors may develop technologies that are superior to or more cost-effective than ours, which may significantly impact the commercial viability of our technologies and 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 therapies, including the study of telomeres, telomerase and our proprietary oligonucleotide chemistry. In addition, other products and therapies that could directly compete with imetelstat 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. 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 (e.g. GlaxoSmithKline, Bristol-Myers Squibb Company, Novartis AG, Incyte Corporation and Gilead Sciences, Inc.) have significantly greater financial resources and expertise than we do in:

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

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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 us. Most significantly, competitive products may render imetelstat obsolete, which would negatively impact our business and ability to sustain operations.

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

If approved for marketing, imetelstat may not achieve market acceptance since hospitals, physicians, patients or the medical community in general may decide not to accept and utilize these products. Imetelstat will compete with a number of conventional drugs and therapies manufactured and marketed by major pharmaceutical companies. The degree of market acceptance of imetelstat will depend on a number of factors, including:

- our establishment and demonstration to the medical community of the clinical efficacy and safety of imetelstat;
- 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 payers.

If the health care community does not accept imetelstat 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 imetelstat, the use of imetelstat could be severely limited.

Our ability to successfully commercialize imetelstat will depend significantly on our ability to obtain acceptable prices and the availability of reimbursement to the patient from third-party payers. In March 2010, the Patient Protection and Affordability Care Act, as amended by the

Health Care and Education Affordability Reconciliation Act (collectively, the PPACA) became law. In June 2012, the United States Supreme Court upheld the constitutionality of key provisions of the PPACA. 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;

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expanding rebates, or other pharmaceutical company discounts, into new programs;

imposing a new non-deductible excise tax on sales of certain prescription pharmaceutical products by prescription drug manufacturers and importers;

reducing incentives for employer-sponsored health care;

creating an independent commission to propose changes to Medicare with a particular focus on the cost of biopharmaceuticals in Medicare Part D;

providing a government-run public option with biopharmaceutical price-setting capabilities;

allowing the Secretary of Health and Human Services to negotiate drug prices within Medicare Part D directly with pharmaceutical manufacturers;

reducing the number of years of data exclusivity for innovative biological products potentially leading to earlier biosimilar competition; and

increasing oversight by the FDA of pharmaceutical research and development processes and commercialization tactics.

While the PPACA may increase the number of patients who have insurance coverage for imetelstat, its cost containment measures could also adversely affect reimbursement for imetelstat. Cost control initiatives could decrease the price that we receive for imetelstat in the future. If imetelstat is not considered cost-effective or if we fail to generate adequate third-party reimbursement for the users of imetelstat, then we may be unable to maintain price levels sufficient to realize an appropriate return on our investment for imetelstat, which could have an adverse impact on our business.

RISKS RELATED TO ENVIRONMENTAL AND PRODUCT LIABILITY

Our activities involve hazardous materials, and improper handling of these materials by our employees, contractors, 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, our contractors and agents 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. Our inability to comply with federal, state and county environmental laws and regulations could subject us to considerable additional cost or liability that would have a material adverse effect on our financial condition. We, our contractors or agents 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, our contractors or agents 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, our contractors and agents may incur substantial costs

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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 imetelstat, or GRN1005 in our discontinued GRABM-B and GRABM-L trials, is alleged to have injured patients. This risk exists for imetelstat, which is currently being tested in human clinical trials, and GRN1005, which we have discontinued, as well as any potential product candidates that we may research, develop or sell in the future. 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.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We currently lease approximately 17,000 square feet of laboratory and office space located at 200 Constitution Drive and approximately 30,000 square feet of office space located at 149 Commonwealth Drive, all in Menlo Park, California. The lease for our facility located at 230 Constitution Drive in Menlo Park, California expired in October 2012. The leases for 200 Constitution Drive and 149 Commonwealth Drive expire in July 2014. Our lease at 149 Commonwealth Drive includes an option to extend the lease for one additional period of two years. We believe that our proposed facilities are adequate to meet our requirements for the near term.

ITEM 3. LEGAL PROCEEDINGS

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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PART II

ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is quoted on the Nasdaq Global Select Market under the symbol GERN. The high and low intraday sales prices as reported by the Nasdaq Global Select Market of our common stock for each of the quarters in the years ended December 31, 2012 and 2011 were as follows:

	High	Low
Year ended December 31, 2012		
First quarter	$ 2.22	$ 1.48
Second quarter	$ 1.78	$ 1.25
Third quarter	$ 2.99	$ 1.21
Fourth quarter	$ 1.74	$ 0.91
Year ended December 31, 2011		
First quarter	$ 5.38	$ 4.67
Second quarter	$ 5.24	$ 3.85
Third quarter	$ 4.39	$ 2.05
Fourth quarter	$ 2.60	$ 1.35

As of March 1, 2013, there were approximately 700 stockholders of record of our common stock. This number does not include "street name" or beneficial holders, whose shares are held of record by banks, brokers and other financial institutions. We are engaged in a highly dynamic industry, which often results in significant volatility of our common stock price. On March 1, 2013, the closing sales price for our common stock was $1.44 per share.

Dividend Policy

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

Performance Measurement Comparison[(1)]

The following graph compares total stockholder returns of Geron Corporation for the last five fiscal years beginning December 31, 2007 to two indices: the Nasdaq CRSP Total Return Index for the Nasdaq Stock Market-U.S. Companies, or the Nasdaq-US, and the Nasdaq Pharmaceutical Index, or the Nasdaq-Pharmaceutical. The total return for our stock and for each index assumes the reinvestment of dividends, although we have never declared dividends on Geron stock, and is based on the returns of the component companies weighted according to their capitalizations as of the end of each quarterly period. The Nasdaq-US tracks the aggregate price performance of equity securities of U.S. companies traded on the Nasdaq Global Select Market, or NGSM. The Nasdaq-Pharmaceutical, which is calculated and supplied by Nasdaq, represents pharmaceutical companies, including biotechnology companies, trading on Nasdaq under the Standard Industrial Classification (SIC) Code No. 283 Drugs main category (2833 Medicinals & Botanicals, 2834 Pharmaceutical Preparations, 2835 Diagnostic Substances, 2836 Biological Products). Geron common stock trades on the NGSM and is a component of both the Nasdaq-US and the Nasdaq-Pharmaceutical. The stockholder return shown in the graph

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below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.

Comparison of Five Year Cumulative Total Return on Investment Among
Geron Corporation, the Nasdaq-US Index and the Nasdaq-Pharmaceutical Index[2]

(1) This Section is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference in any filing of the Company under the Securities Act, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

(2) Shows the cumulative total return on investment assuming an investment of $100 in each of Geron, the Nasdaq-US and the Nasdaq-Pharmaceutical on December 31, 2007. The cumulative total return on Geron stock has been computed based on a price of $5.68 per share, the price at which Geron common stock closed on December 31, 2007.

Recent Sales of Unregistered Securities

None.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected consolidated financial data should be read together with our consolidated financial statements and accompanying notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this annual report on Form 10-K. The selected consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

	Year Ended December 31,				
	2012	2011	2010	2009	2008
	(In thousands, except share and per share data)				
Consolidated Statements of Operations Data:					
Revenues from collaborative agreements	$	$ 300	$ 925	$ 450	$ 294
License fees and royalties	2,709	2,138	2,638	1,276	2,509
Total revenues	2,709	2,438	3,563	1,726	2,803
Operating expenses:					
Research and development	51,368	69,316	61,687	57,617	53,664
Acquired in-process research and development[1]			35,000		
Restructuring charges[2]	2,702	5,449			
General and administrative	20,397	23,789	18,043	14,343	16,183
Total operating expenses	74,467	98,554	114,730	71,960	69,847
Loss from operations	(71,758)	(96,116)	(111,167)	(70,234)	(67,044)
Unrealized gain on derivatives, net	13	643	190	157	418
Interest and other income	3,097	1,024	2,045	1,374	5,542
Losses recognized under equity method investment		(503)	(2,347)	(1,338)	(844)
Losses recognized from debt extinguishment[3]		(1,664)			
Interest and other expense	(233)	(237)	(98)	(143)	(93)
Net loss	(68,881)	(96,853)	(111,377)	(70,184)	(62,021)
Deemed dividend on derivatives[4]				(190)	
Net loss applicable to common stockholders	$ (68,881)	$ (96,853)	$ (111,377)	$ (70,374)	$ (62,021)
Basic and diluted net loss per share applicable to common stockholders:					
Net loss per share applicable to common stockholders	$ (0.54)	$ (0.78)	$ (1.14)	$ (0.80)	$ (0.79)
Shares used in computing net loss per share applicable to common stockholders	126,941,024	124,506,763	97,601,520	88,078,557	78,187,795

(1) In December 2010, we and Angiochem, Inc., or Angiochem, entered into an exclusive license agreement that provided 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

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compounds across the blood-brain barrier to be used with tubulin disassembly inhibitors to enable the treatment of primary brain cancers and cancers that have metastasized to the brain. As consideration for the license rights, we paid Angiochem an upfront payment of $7.5 million in cash and issued to Angiochem 5,261,144 shares of common stock on January 5, 2011 as payment of our obligation to issue $27.5 million in stock to Angiochem.

We acquired the license rights for Angiochem's proprietary receptor-targeting peptides for the clinical development of GRN1005, a novel taxane derivative for which Angiochem had performed two Phase 1 clinical trials in brain metastases and glioblastoma multiforme. Upon acquiring the license rights from Angiochem, we commenced development of two Phase 2 clinical trials of GRN1005 and because further clinical and process development of GRN1005 was required before any viable commercial application could be identified or utilized, we concluded that the technology had no alternative future use, and accordingly, expensed the total upfront payment of $35.0 million as acquired in-process research and development at the time of acquisition in 2010. On December 3, 2012, we provided to Angiochem notice of termination of the exclusive license agreement. Under the terms of the license agreement, the effective date of the termination is June 1, 2013. See Note 11 on License Agreements in Notes to Consolidated Financial Statements of this Form 10-K.

(2)

In December 2012, we announced the decision to discontinue development of GRN1005 and restructure our workforce from 107 positions to 64 full-time positions, representing a reduction of approximately 40% of our workforce at that time. In connection with the restructuring, we recorded aggregate restructuring charges of approximately $2.7 million in the fourth quarter of 2012, of which $2.4 million related to one-time termination benefits and $271,000 related to write-downs of GRN1005 manufacturing equipment.

In November 2011, we discontinued further development of our stem cell programs. With this decision, a total of 66 full-time positions were eliminated, representing approximately 38% of our workforce at that time. In connection with the restructuring, we recorded aggregate restructuring charges of approximately $5.4 million in the fourth quarter of 2011, of which $4.6 million related to one-time termination benefits and $874,000 related to write-downs of excess lab equipment and leasehold improvements and other charges. See Note 7 on Restructurings in Notes to Consolidated Financial Statements of this Form 10-K.

(3)

In November 2011, we repaid the outstanding principal balance, including accrued interest, or Loan Balance, to the California Institute for Regenerative Medicine, or CIRM, representing our entire Loan Balance under our loan agreement with CIRM. In addition, we relinquished our right to future disbursements from CIRM under the loan agreement and gave notice of termination. With the repayment of the entire outstanding Loan Balance, we have no further amounts owed to CIRM. In connection with the early termination of the loan agreement with CIRM, we recognized a debt extinguishment charge of $1.7 million for the unamortized debt discount associated with the loan. See Note 8 on Long-Term Debt in Notes to Consolidated Financial Statements of this Form 10-K.

(4)

In April 2009, in connection with our continued collaboration with an investor and licensee and the data received under the collaboration relevant to our therapeutic programs, we modified the terms of certain outstanding warrants held by this investor by extending the exercise term and reducing the exercise price. The exercise term of warrants to purchase 200,000 shares of common stock was extended to March 9, 2012 from March 9, 2010 and the exercise price was modified to $17.50 per share from $67.09 per share. The exercise term of warrants to purchase 100,000 shares of common stock was extended to March 9, 2012 from March 9, 2010 and the exercise price was unchanged at $12.50 per share. In connection with the modifications, we recognized a deemed dividend of approximately $190,000 for the incremental fair value of the modified warrants. These warrants subsequently expired unexercised.

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	December 31,				
	2012	2011	2010	2009	2008
	(In thousands)				
Consolidated Balance Sheets Data:					
Cash, restricted cash, cash equivalents and marketable securities	$ 96,329	$ 154,239	$ 221,274	$ 167,070	$ 163,655
Working capital	84,269	112,181	154,168	110,324	160,535
Total assets	99,801	160,047	233,584	180,382	176,218
Accumulated deficit	(854,384)	(785,503)	(688,650)	(577,267)	(506,893)
Total stockholders' equity	85,653	146,603	192,735	172,577	168,455

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

Overview

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

We are a biopharmaceutical company developing first-in-class therapies for cancer. Imetelstat, a novel, first-in-class telomerase inhibitor, is our product candidate in clinical development. Imetelstat is based on our core expertise in telomerase and telomere biology. Telomerase is an enzyme that enables cancer cells to maintain telomere length, which provides them with the capacity for limitless cellular replication. Imetelstat is a potent and specific inhibitor of telomerase. Based on clinical data we obtained in late 2012, we may develop imetelstat to treat one or more hematologic myeloid malignancies such as myelofibrosis, or MF, myelodysplastic syndromes, or acute myelogenous leukemia. We are also evaluating the impact of a recent updated analysis that included a more mature follow-up of clinical data and a re-test of patient tumor samples using a refined, prospective assay to measure telomere length from our randomized Phase 2 trial of imetelstat in advanced non-small cell lung cancer, or NSCLC, on our plans for the potential development of imetelstat to treat one or more solid tumors, such as NSCLC.

We have incurred operating losses every year since our operations began in 1990. 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. For the years ended December 31, 2012, 2011 and 2010, we incurred net losses of $68.9 million, or $0.54 per share, $96.9 million, or $0.78 per share, and $111.4 million, or $1.14 per share, respectively. As of December 31, 2012, we had an accumulated deficit of $854.4 million.

Substantially all of our revenues to date have been research support payments under collaboration agreements and milestones, royalties and other revenues from our licensing arrangements. Revenues generated from these arrangements will not be sufficient alone to continue or expand our research or development activities and otherwise sustain our operations.

As of December 31, 2012, we had cash, restricted cash, cash equivalents and marketable securities of $96.3 million compared to $154.2 million at December 31, 2011 and $221.3 million at December 31, 2010. We estimate that our existing capital resources, amounts available to us under our equipment financing facility and future interest income will be sufficient to fund our current level of operations through at least the next 12 months.

2012 Phase 2 Top-Line Results: Hematologic Malignancies

We evaluated imetelstat in two single-arm Phase 2 trials in hematologic, or blood-based, cancers: essential thrombocythemia, or ET, and multiple myeloma. Top-line data from the ET trial that we

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presented in December 2012 at the American Society of Hematology annual meeting showed durable hematologic and molecular responses in patients, suggesting that imetelstat inhibited the progenitor cells of the malignant clone believed to be responsible for the underlying disease in a relatively selective manner. In addition, preliminary data from the multiple myeloma trial showed a rapid and significant decrease in myeloma progenitor cells that were detected in blood over the course of imetelstat treatment. The Phase 2 trials of imetelstat in ET and multiple myeloma are no longer enrolling patients and we are continuing to follow patients previously enrolled in the trials. We believe the clinical results in ET provide the rationale to pursue development of imetelstat in other hematologic myeloid malignancies, most of which are driven by clonal proliferation of malignant progenitor cells.

2012 Phase 2 Top-Line Results: Solid Tumors

We also evaluated imetelstat in two randomized, controlled Phase 2 clinical trials in solid tumors: one evaluated imetelstat in combination with paclitaxel compared to paclitaxel alone in patients with metastatic breast cancer, or MBC, and the other tested imetelstat as maintenance treatment compared to observation following induction treatment with platinum-based doublet chemotherapy in patients with advanced NSCLC.

In September 2012, we discontinued the MBC trial because the median progression-free survival, or PFS, in the imetelstat-treatment arm was shorter than in the comparator arm. In the NSCLC trial, a modest, although not statistically significant, trend in PFS in favor of the imetelstat-treatment arm was observed. Enrollment in the Phase 2 NSCLC trial was completed in May 2012, and we are continuing to follow patients previously enrolled in the trial.

In December 2012, we completed a sub-group analysis of the clinical data from the NSCLC trial in which we analyzed the effect of imetelstat on tumors with various tumor telomere lengths. The data from this sub-group analysis showed that the imetelstat-treated patients with short tumor telomere length experienced an increase in PFS compared to patients in the comparator arm. This treatment effect was not observed in patients whose tumors had medium-to-long telomeres.

In March 2013, we completed an updated analysis of the sub-group based on tumor telomere length that included a more mature follow-up of clinical data and a re-test of patient tumor samples using a refined, prospective assay to measure telomere length. In the updated analysis, the magnitude of the treatment effect in patients whose tumors had short telomeres was not reproduced. Data from the NSCLC trial have been accepted for presentation at the American Association for Cancer Research annual meeting to be held in April 2013.

Future Development of Imetelstat

Based on the data from our Phase 2 ET clinical trial, in November 2012, Dr. Ayalew Tefferi at the Mayo Clinic initiated an investigator-sponsored trial to evaluate the safety and efficacy of imetelstat in patients with MF and determine the optimal dose and schedule for further evaluation. Data from this trial will inform any future Geron-sponsored clinical trial in patients with MF. In addition, we intend to expand our directed program of investigator-sponsored trials to other hematologic myeloid malignancies, including myelodysplastic syndromes and acute myelogenous leukemia. We are also working with expert advisors to assess the potential for further development of imetelstat in ET.

We are evaluating the impact of the March 2013 updated sub-group analysis on our plans for potential development of imetelstat in solid tumors, including NSCLC. In addition, in order to explore the hypothesis that patients with NSCLC whose tumors have short telomeres may have an improved outcome when treated with imetelstat, we are refining and evaluating candidate assays to prospectively measure tumor telomere length, and have commenced the procedures for screening multiple tumor banks (e.g., small cell lung cancer, ovarian cancer and sarcomas) to identify other solid tumor types

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with a significant number of patients that have tumors with short telomeres. Results of these activities may help us understand the potential for imetelstat in the treatment of solid tumors outside of NSCLC.

Discontinuation of GRN1005 and Company Restructuring

In December 2012, we discontinued development of GRN1005, a novel peptide-drug conjugate designed to treat cancers that have metastasized to the brain, based on an interim analysis for futility for GRABM-B, our Phase 2 trial in patients with brain metastases arising from breast cancer, and study enrollment challenges with GRABM-L, our Phase 2 trial in patients with brain metastases arising from non-small cell lung cancer. The GRABM-B and GRABM-L trials have been closed to further patient enrollment and we continue to follow the patients remaining in the trials. In connection with the decision to discontinue development of GRN1005, we provided to Angiochem, Inc. notice of termination of both the exclusive license agreement under which we received rights to GRN1005 and an associated research collaboration and option agreement. Under the terms of the license agreement, the effective date of the termination is June 1, 2013. However, our obligations to complete the GRABM-B and GRABM-L trials may continue beyond that date.

In connection with the discontinuation of GRN1005, we reduced our workforce from 107 positions to 64 full-time positions, resulting in restructuring charges of approximately $2.7 million related to one-time termination benefits and impairment of various assets which were recognized in the fourth quarter of 2012. The remaining restructuring charge is expected to be recorded in the first half of 2013. We plan to sell the GRN1005 manufacturing equipment, the net proceeds of which may offset some of these future charges. We expect the restructuring will result in aggregate cash expenditures of approximately $2.5 million, of which $375,000 related to one-time termination benefits that were paid as of December 31, 2012 and approximately $2.1 million relates to one-time termination benefits to be paid during 2013.

Discontinuation of Human Embryonic Stem Cell Programs and Divestiture of Human Embryonic Stem Cell Assets

In November 2011, we discontinued further development of our stem cell programs. With this decision, a total of 66 full-time positions were eliminated, resulting in restructuring charges of approximately $5.4 million related to one-time termination benefits and write-downs of excess lab equipment and leasehold improvements that were recognized in the fourth quarter of 2011.

In January 2013, we entered into an Asset Contribution Agreement, or the Agreement, with BioTime, Inc., or BioTime, and BioTime's recently formed subsidiary, BioTime Acquisition Corporation, or BAC, providing for the divestiture of all of our human embryonic stem cell assets, including intellectual property, proprietary technology, materials, equipment and reagents, contracts, regulatory filings, our Phase 1 clinical trial of oligodendrocyte progenitor cells, or GRNOPC1, in patients with acute spinal cord injury, and our autologous cellular immunotherapy program, including data from the Phase 2 clinical trial of the autologous immunotherapy in patients with acute myelogenous leukemia, or our stem cell assets, to BAC upon the closing of the transaction.

As consideration for the contribution of our human embryonic stem cell assets to BAC, upon the closing, BAC will issue to Geron approximately 6.5 million shares of its Series A common stock, which we will distribute to our stockholders on a pro rata basis following the closing. BAC will also pay royalties to us on the sale of products that are commercialized, if any, in reliance upon our patents acquired by BAC. In addition, BioTime will contribute to BAC certain cash, stock and warrants. Some of these warrants will be distributed by BAC, after the closing of the transaction, to the holders of BAC Series A common stock. The transaction, which is expected to close no later than September 30, 2013, is subject to negotiated closing conditions, including certain approvals by BioTime's shareholders, the effectiveness of certain registration statements to be filed by BioTime and BAC with the United

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States Securities and Exchange Commission, or the SEC, with respect to the securities to be distributed as contemplated by the Agreement, and other customary closing conditions.

Prior to the closing, we are subject to certain obligations, including the obligation to exercise reasonable best efforts to preserve intact and maintain the assets to be contributed by us to BAC upon the closing of the transaction, including our intellectual property rights and the continuation of patents in-licensed from third parties. If we are unable to preserve intact and maintain the assets to be contributed by us to BAC, or if BioTime or BAC are unable to satisfy their obligations with respect to the transaction contemplated by the Agreement, including the obligation to obtain the effectiveness of certain registration statements to be filed by them with the SEC, we may be unable to fully complete the transaction with BioTime and BAC, which could have a material adverse effect on our business.

Upon the closing, BAC will assume all post-closing costs with respect to all of the assets contributed by us, including any costs related to the GRNOPC1 clinical trial. Additionally, upon the closing, BAC will be substituted for us as a party in an appeal by us of two rulings by the U.S. Patent and Trademark Office's Board of Patent Appeals and Interferences in favor of ViaCyte, Inc. related to two of our patent applications covering the production of endoderm from human embryonic stem cells (part of the process for making pancreatic islet cells), and BAC will assume all costs arising after the closing with respect to the appeal.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. Note 1 of Notes to Consolidated Financial Statements describes the significant accounting policies used in the preparation of the consolidated financial statements. Certain of these significant accounting policies are considered to be critical accounting policies, as defined below.

A critical accounting policy is defined as one that is both material to the presentation of our consolidated financial statements and requires management to make difficult, subjective or complex judgments that could have a material effect on our financial condition and results of operations. Specifically, critical accounting estimates have the following attributes: (i) we are required to make assumptions about matters that are highly uncertain at the time of the estimate; and (ii) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, would have a material effect on our financial condition or results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have historically been minor and have been included in the consolidated financial statements as soon as they became known. Based on a critical assessment of our accounting policies and the underlying judgments and uncertainties affecting the application of those policies, management believes that our consolidated financial statements are fairly stated in accordance with accounting principles generally accepted in the United States, and meaningfully present our financial condition and results of operations.

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We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of our consolidated financial statements:

Fair Value of Financial Instruments

We categorize financial instruments recorded at fair value on our consolidated balance sheet based upon the level of judgment associated with inputs used to measure their fair value. The categories are as follows:

Level 1 Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 Inputs (other than quoted market prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Following is a description of the valuation methodologies used for instruments measured at fair value on our consolidated balance sheet, including the category for such instruments.

We classify inputs to derive fair values for marketable securities available-for-sale as Level 1 and 2. Instruments classified as Level 1 include money market funds, representing 17% of our total financial instruments measured at fair value classified as assets as of December 31, 2012. Instruments classified as Level 2 include U.S. government-sponsored enterprise securities, commercial paper and corporate notes, representing 83% of our total financial instruments measured at fair value classified as assets as of December 31, 2012. The price for each security at the measurement date is derived from various sources. Periodically, we assess the reasonableness of these sourced prices by comparing them to the prices provided by our portfolio managers from broker quotes as well as reviewing the pricing methodologies used by our portfolio managers. Historically, we have not experienced significant deviation between the sourced prices and our portfolio manager's prices.

Warrants to purchase common stock and non-employee options are normally traded less actively, have trade activity that is one way, and/or traded in less-developed markets and are therefore valued based upon models with significant unobservable market parameters, resulting in Level 3 categorization. Instruments classified as Level 3 include derivative liabilities from non-employee options, representing all of our financial instruments measured at fair value classified as liabilities as of December 31, 2012. The fair value for these instruments is calculated using the Black Scholes option-pricing model. The model's inputs reflect assumptions that market participants would use in pricing the instrument in a current period transaction. Use of this model requires us to make assumptions regarding stock volatility, dividend yields, expected term of the non-employee options and risk-free interest rates. Changes to the model's inputs are not changes to valuation methodologies, but instead reflect direct or indirect impacts from changes in market conditions. Accordingly, results from the valuation model in one period may not be indicative of future period measurements. Expected volatilities are based on historical volatilities of our stock. The expected term of non-employee options represents the remaining contractual term of the instruments. The risk-free interest rate is based on the U.S. Zero Coupon Treasury Strip Yields for the remaining term of the instrument. If factors change and we employ different assumptions in future periods, the fair value of these non-employee options reflected as of

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each balance sheet date and the resulting change in fair value that we record may differ significantly from what we have recorded in previous periods. As of December 31, 2012, we have not revised the method in which we derive assumptions in order to estimate fair values of non-employee options classified as assets or liabilities, and we do not expect revisions in the future.

For a further discussion regarding fair value measurements, see Note 2 on Fair Value Measurements in Notes to Consolidated Financial Statements of this Form 10-K.

Revenue Recognition

Since our inception, a substantial portion of our revenues has been generated from collaboration agreements and licensing arrangements. Revenue under such agreements typically includes upfront signing or license fees, cost reimbursements, milestone payments and royalties on future product sales.

We recognize upfront non-refundable signing, license or non-exclusive option fees as revenue when rights to use the intellectual property related to the license have been delivered and over the term of the agreement if we have continuing performance obligations. We recognize cost reimbursement revenue under collaborative agreements as the related research and development costs for services are rendered. We recognize revenue from milestone payments, which are subject to substantive contingencies, upon completion of specified milestones, which represents the culmination of an earnings process, according to contract terms. Royalties are generally recognized as revenue upon the receipt of the related royalty payment. Deferred revenue represents the portion of research or license payments received which has not been earned. When payments are received in equity securities, we do not recognize any revenue unless such securities are determined to be realizable in cash.

We estimate the projected future term of license agreements over which we recognize revenue. Our estimates are based on contractual terms, historical experience and general industry practice. Revisions in the estimated terms of these license agreements have the effect of increasing or decreasing license fee revenue in the period of revision. As of December 31, 2012, no revisions to the estimated future terms of license agreements have been made and we do not expect revisions to the currently active agreements in the future.

Clinical Trial Accruals

Substantial portions of our preclinical studies and all of our clinical trials have been performed by third-party contract research organizations, or CROs, and other vendors. We accrue expenses for preclinical studies performed by our vendors based on certain estimates over the term of the service period and adjust our estimates as required. We accrue expenses for clinical trial activities performed by CROs based upon the estimated amount of work completed on each study. For clinical trial expenses, the significant factors used in estimating accruals include the number of patients enrolled, the number of active clinical sites, and the duration for which the patients will be enrolled in the study. We monitor patient enrollment levels and related activities to the extent possible through internal reviews, review of contractual terms and correspondence with CROs. We base our estimates on the best information available at the time. However, additional information may become available to us which will allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods when the actual level of activity becomes more certain.

Valuation of Stock-Based Compensation

We measure and recognize compensation expense for all stock-based awards to our employees and directors, including stock options, restricted stock awards and employee stock purchases related to our Employee Stock Purchase Plan, or ESPP, based on estimated fair values. We use the Black Scholes option-pricing model to estimate the grant-date fair value of our stock options and employee stock plan purchases. Option-pricing valuation model assumptions such as expected volatility, risk-free interest rate and expected term impact the fair value estimate.

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Further, the estimated forfeiture rate impacts the amount of aggregate stock-based compensation expense recognized during the period. The fair value of stock options and employee stock purchases is amortized over the vesting period of the awards using a straight-line method.

Expected volatilities are based on historical volatilities of our stock since traded options on Geron stock do not correspond to option terms and trading volume of options is limited. The expected term of options represents the period of time that options granted are expected to be outstanding. In deriving this assumption, we reviewed actual historical exercise and cancellation data and the remaining outstanding options not yet exercised or cancelled. The expected term of employees' purchase rights under our ESPP is equal to the purchase period. The risk-free interest rate is based on the U.S. Zero Coupon Treasury Strip Yields for the expected term in effect on the date of grant. Forfeiture rates are estimated based on historical data and are adjusted, if necessary, over the requisite service period based on the extent to which actual forfeitures differ, or are expected to differ, from their estimate.

We grant restricted stock awards to employees and non-employee directors with three types of vesting schedules: (i) service-based, (ii) performance-based or (iii) market-based. Service-based restricted stock awards generally vest annually over four years. Performance-based stock awards vest only upon achievement of discrete strategic goals within a specified performance period, generally three years. Market-based stock awards vest only upon achievement of certain market price thresholds of our common stock within a specified performance period, generally three years.

The fair value for service-based restricted stock awards is determined using the fair value of our common stock on the date of grant. Stock-based compensation expense is amortized over the requisite service period of the award on a straight-line basis and reduced for estimated forfeitures, as applicable.

The fair value for performance-based restricted stock awards is determined using the fair value of our common stock on the date of grant. Stock-based compensation expense is recognized over the period from the date the performance condition is determined to be probable of occurring through the date the applicable condition is expected to be met and reduced for estimated forfeitures, as applicable. If the performance condition is not considered probable of being achieved, no expense is recognized until such time as the performance condition is considered probable of being met, if ever. We evaluate whether performance conditions are probable of occurring, as well as the expected performance period, on a quarterly basis.

The fair value for market-based restricted stock awards is determined using a lattice valuation model with a Monte Carlo simulation. The model takes into consideration the historical volatility of our stock and the risk-free interest rate at the date of grant. In addition, the model is used to estimate the derived service period for the awards. The derived service period is the estimated period of time that would be required to satisfy the market condition, assuming the market condition will be satisfied. Stock-based compensation expense is recognized over the derived service period using the straight-line method and reduced for estimated forfeitures, as applicable, but is accelerated if the market condition is achieved earlier than estimated.

We evaluate the assumptions used in estimating fair values of our stock-based awards by reviewing current trends in comparison to historical data on an annual basis. We have not revised the methods by which we derive assumptions in order to estimate fair values of our stock-based awards. If factors change and we employ different assumptions in future periods, the stock-based compensation expense that we record for awards to employees and directors may differ significantly from what we have recorded in the current period.

Compensation expense recognized for stock-based awards to employees and directors was $5.3 million, $15.2 million and $13.7 million for the years ended December 31, 2012, 2011 and 2010, respectively. As of December 31, 2012, total compensation cost related to unvested stock awards not yet recognized, net of estimated forfeitures and assuming no probability of achievement for outstanding

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performance-based restricted stock awards, was $8.3 million, which is expected to be recognized over the next 35 months on a weighted-average basis.

For our non-employee stock-based awards, the measurement date on which the fair value of the stock-based award is calculated is equal to the earlier of (i) the date at which a commitment for performance by the counterparty to earn the equity instrument is reached or (ii) the date at which the counterparty's performance is complete. We recognized stock-based compensation expense of $135,000, $114,000 and $463,000 for the fair value of the vested portion of non-employee options and restricted stock awards in our consolidated statements of operations for the years ended December 31, 2012, 2011 and 2010, respectively.

Results of Operations

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

Revenues

We recognized revenues from collaborative agreements of $300,000 and $925,000 in 2011 and 2010, respectively. Revenues from collaborative agreements in 2011 and 2010 primarily reflected revenue recognized under our collaboration with GE Healthcare UK, Ltd., or GE Healthcare, which began in July 2009. No comparable amount was recognized in 2012 because the collaboration with GE Healthcare concluded in June 2011.

We have entered into license and option agreements with companies involved with oncology, diagnostics, research tools, agriculture and biologics production. In each of these agreements, we have granted certain rights to our technologies. In connection with the agreements, we are eligible to receive license fees, option fees, milestone payments and royalties on future product sales, or any combination thereof. We recognized license fee revenues of $1.6 million, $1.3 million and $2.0 million in 2012, 2011 and 2010, respectively, related to our various agreements. The increase in license fee revenues in 2012 compared to 2011 primarily reflects the full recognition of a license payment from GE Healthcare related to the exercise of an option to expand the scope of their original 2009 license agreement. Under the expanded license, GE Healthcare obtained exclusive global rights to our intellectual property and know-how for the development and sale of cellular assays derived from induced pluripotent stem cells. The decrease in license fee revenues in 2011 compared to 2010 primarily reflects the full recognition of the upfront non-refundable license fees under the GE Healthcare agreement upon the conclusion of the collaboration in June 2011. Current revenues may not be predictive of future revenues.

We recognized royalty revenues of $1.1 million, $855,000 and $642,000 in 2012, 2011 and 2010, respectively, on product sales of telomerase detection and telomere measurement kits to the

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research-use-only market, cell-based research products and nutritional products. Future license and royalty revenues are dependent upon additional agreements being signed and current agreements being maintained. Upon the closing of the divestiture of the stem cell assets, the license with GE Healthcare, including any future revenue payments thereunder, will be transferred to BAC. In addition, the assignment of our telomerase activation technology to Telomerase Activation Sciences, Inc., or TA Sciences, will reduce future royalty revenues. See Interest and Other Income for a discussion of the agreement with TA Sciences.

Research and Development Expenses

For each of our research and development programs, we incur direct external, personnel related and other research and development costs. Direct external expenses primarily consist of costs to outside parties to perform laboratory studies, develop manufacturing processes and manufacture raw materials and clinical trial drug materials, conduct and manage clinical trials and provide advice and consultation for scientific and clinical strategies. Personnel related expenses primarily consist of salaries and wages, stock-based compensation, payroll taxes and benefits for those individuals involved with ongoing research and development efforts. Other research and development expenses primarily consist of laboratory supplies, research-related overhead associated with leasing, operating and maintaining our facilities and equipment depreciation and maintenance. These costs apply to our clinical programs, preclinical programs as well as our discovery research efforts. Product candidates are designated clinical candidates once an investigational new drug application has been filed with the FDA, or a similar filing with regulatory agencies outside the United States, for the purpose of commencing clinical trials in humans. Preclinical programs include product candidates undergoing toxicology, pharmacology, metabolism and efficacy studies and manufacturing process development required before testing in humans can commence.

Research and development expenses were $51.4 million, $69.3 million and $61.7 million for the years ended December 31, 2012, 2011 and 2010, respectively. As shown in the table below, the decrease in research and development expenses in 2012 compared to 2011 reflects the net result of reduced costs due to the discontinued development of our stem cell programs and lower direct external research and development costs for the manufacturing of imetelstat drug product resulting from the timing of manufacturing campaigns, partially offset by increased direct external research and development costs for our Phase 2 clinical trials of GRN1005 in patients with brain metastases that were initiated in December 2011. The discontinuation of our stem cell programs resulted in reduced direct external research and development costs for our Phase 1 trial of GRNOPC1 for the treatment of acute spinal cord injury, decreased personnel related costs and lower other research and development expenses, mainly for scientific supplies. The increase in 2011 compared to 2010 was primarily the net result of increased direct external research and development costs for the enrollment of four Phase 2 clinical trials of imetelstat and higher clinical drug product purchases and manufacturing costs related to imetelstat and GRN1005, partially offset by lower other research and development expenses, mainly for scientific supplies, resulting from our decision in November 2011 to discontinue development of our stem cell programs. Overall, we expect research and development expenses to decrease in 2013 as a result of our decision to discontinue development of GRN1005 and focus on the development of imetelstat.

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Research and development expenses for the years ended December 31, 2012, 2011 and 2010 were as follows:

(In thousands)	Year Ended December 31, 2012	2011	2010
Direct external research and development expenses:			
Clinical program: Imetelstat	$ 12,907	$ 16,016	$ 11,555
Clinical program: GRN1005	10,723	5,289	18
Clinical program: GRNOPC1	393	2,703	2,993
Preclinical programs	1,155	2,367	3,283
Personnel related expenses	19,008	30,042	29,973
All other research and development expenses	7,182	12,899	13,865
Total	$ 51,368	$ 69,316	$ 61,687

At this time, we cannot provide reliable estimates of how much time or investment will be necessary to commercialize imetelstat. For a more complete discussion of the risks and uncertainties associated with the development of imetelstat, see the sub-sections titled "Risks Related to Our Business" and "Risks Related to Clinical and Commercialization Activities" in Part I, Item 1A entitled "Risk Factors" and elsewhere in this Form 10-K.

Acquired In-Process Research and Development

As consideration for the license rights to Angiochem's proprietary peptide technology for the clinical development of ANG1005 (now GRN1005), we paid Angiochem an upfront payment of $7.5 million in cash in December 2010 and on January 5, 2011, issued 5,261,144 shares of common stock to Angiochem as payment of our obligation to issue $27.5 million in stock.

As further clinical and process development of GRN1005 was required before any viable commercial application could be identified or utilized, we concluded that the technology had no alternative future use, and accordingly, expensed the total upfront payment of $35.0 million in connection with the license agreement as acquired in-process research and development expense at the time of acquisition in 2010. See Note 11 on License Agreements in Notes to Consolidated Financial Statements of this Form 10-K for further discussion of the exclusive license agreement with Angiochem and our recent notice of termination to them.

Restructuring Charges

In December 2012, we announced the decision to discontinue development of GRN1005 and reduce our workforce from 107 positions to 64 full-time positions. Of the 43 positions eliminated, as of February 1, 2013, ten employees were continuing to provide services through various dates in the first half of 2013. In connection with the restructuring, we recorded aggregate restructuring charges of approximately $2.7 million in the fourth quarter of 2012, of which $2.4 million related to one-time termination benefits, including $107,000 for non-cash stock-based compensation expense relating to the extension of the post-termination exercise period for certain stock options previously granted to terminated employees through the end of December 2013, and $271,000 related to write-downs of GRN1005 manufacturing equipment.

In November 2011, we announced the decision to focus on the development of our oncology programs and consequently, we discontinued further development of our stem cell programs. With this decision, a total of 66 full-time positions were eliminated. Of those, 14 employees continued to provide services through various dates in the first half of 2012. In connection with the restructuring, we recorded aggregate restructuring charges of approximately $5.4 million in the fourth quarter of 2011, of

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which $4.6 million related to one-time termination benefits, including $174,000 for non-cash stock-based compensation expense relating to the extension of the post-termination exercise period for certain stock options previously granted to terminated employees through the end of June 2013 and December 2013, and $874,000 related to write-downs of excess lab equipment and leasehold improvements and other charges. See Note 7 on Restructurings in Notes to Consolidated Financial Statements of this Form 10-K for further discussion of the restructuring charges.

General and Administrative Expenses

General and administrative expenses were $20.4 million, $23.8 million and $18.0 million for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease in 2012 compared to 2011 primarily reflects lower non-cash stock-based compensation expense of $6.4 million, partially offset by higher legal and consulting fees of $2.8 million associated with our intellectual property portfolio and our stem cell divestiture efforts. The increase in 2011 compared to 2010 was primarily the result of higher non-cash stock-based compensation expense of $2.2 million related to stock options and restricted stock awards to employees and directors, severance expenses of $1.6 million related to separation agreements executed with our former Chief Executive Officer, or CEO, and former Chief Financial Officer, or CFO, and higher corporate legal and consulting fees of $1.0 million.

Unrealized Gain on Derivatives

Unrealized gain on derivatives reflects a non-cash adjustment for changes in fair value of options held by non-employees that are classified as current liabilities. Derivatives classified as assets or liabilities are marked to fair value at each financial reporting date with any resulting unrealized gain (loss) recorded in the consolidated statements of operations. The derivatives continue to be reported as an asset or liability until such time as the instruments are exercised or expire or are otherwise modified to remove the provisions which require them to be recorded as assets or liabilities, at which time these instruments are marked to fair value and reclassified from assets or liabilities to stockholders' equity. We incurred unrealized gains on derivatives of $13,000, $643,000 and $190,000 for the years ended December 31, 2012, 2011 and 2010, respectively which reflected reduced fair values of derivative liabilities resulting from shortening of their contractual terms, decreases in the market value of our stock and changes in other inputs factored into the estimate of their fair value, such as the volatility of our stock. See Note 2 on Fair Value Measurements in Notes to Consolidated Financial Statements of this Form 10-K for further discussion of the fair value of derivatives.

Interest and Other Income

Interest income was $597,000, $1.0 million and $818,000 for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease in 2012 compared to 2011 reflects lower cash and investment balances resulting from the use of cash for operations. The increase in 2011 compared to 2010 was due to higher cash and investment balances for the majority of 2011 as a result of the receipt of $93.7 million in net proceeds in December 2010 from an underwritten public offering of our common stock. Interest earned in future periods will depend on the size of our securities portfolio and prevailing interest rates.

Other income was $2.5 million, zero and $1.2 million for the years ended December 31, 2012, 2011 and 2010, respectively. In December 2012, we received a non-refundable upfront payment of $2.5 million for the assignment of our telomerase activation technology to TA Sciences pursuant to the Termination and Assignment Agreement that Geron entered into with Asia Biotech Corporation, or Asia Biotech, and TA Sciences on December 5, 2012. In November 2010, we received a total of $1.2 million in grants under the Qualifying Therapeutic Discovery Project, or QTDP, program. The maximum grant amount was awarded to each of the five Geron programs that were eligible for QTDP funding and included oncology and human embryonic stem cell projects. See Note 11 on License

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Agreements in Notes to Consolidated Financial Statements of this Form 10-K for further discussion of the Termination and Assignment Agreement with Asia Biotech and TA Sciences.

Losses Recognized Under Equity Method Investment

We owned 40% of ViaGen, Inc., or ViaGen, a licensee with in-house breeding services and expertise in advanced reproductive technologies for animal cloning. In November 2010, we provided a loan of $1.5 million to ViaGen to fund its operations. The loan represented additional financial support to ViaGen and funded approximately $900,000 in prior losses of the company which has been included in losses recognized under equity method investment in 2010.

In accordance with the equity method of accounting, we recognized losses of $503,000 and $1.4 million for the years ended December 31, 2011 and 2010, respectively, for our proportionate share of ViaGen's losses. No comparable amount was recognized in 2012 because we suspended the equity method of accounting in June 2011 since our proportionate share of net losses exceeded the value of our investment and we had no commitments to provide financial support or obligations to perform services or other activities for ViaGen.

In September 2012, we sold our entire equity interest in ViaGen to Trans Ova Genetics, L.C. See Note 3 on Equity Method Investment in Notes to Consolidated Financial Statements of this Form 10-K for further discussion of our investment in ViaGen and sale to Trans Ova Genetics, L.C.

Losses Recognized from Debt Extinguishment

In November 2011, we repaid the outstanding principal balance, including accrued interest, or Loan Balance, to the California Institute for Regenerative Medicine, or CIRM, representing our entire Loan Balance under our loan agreement with CIRM. In addition, we relinquished our right to future disbursements from CIRM under the loan agreement and gave notice of termination. With the repayment of the entire outstanding Loan Balance, we have no further amounts owed to CIRM. In connection with the early termination of the loan agreement, we recognized a debt extinguishment charge of $1.7 million for the unamortized debt discount associated with the loan. See Note 8 on Long-Term Debt in Notes to Consolidated Financial Statements of this Form 10-K for a further discussion of the loan from CIRM.

Interest and Other Expense

Interest and other expense was $233,000, $237,000 and $98,000 for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease in 2012 compared to 2011 was the net result of reduced bank charges due to lower cash and investment balances and the absence of interest expense for the loan from CIRM due to the full repayment of the loan in November 2011, partially offset by the recognition of accumulated foreign currency translation adjustments of $153,000 in connection with the dissolution of Geron Bio-Med Ltd. in August 2012. The increase in interest and other expense for 2011 compared to 2010 primarily reflects $88,000 in interest expense resulting from the amortization of the debt discount and accrual of interest on the CIRM loan and increased bank charges as a result of higher cash and investment balances for the majority of 2011.

Net Loss

Net loss was $68.9 million, $96.9 million and $111.4 million for the years ended December 31, 2012, 2011 and 2010, respectively. The decrease in net loss in 2012 compared to 2011 was primarily due to reduced research and development expenses as a result of discontinuing development of our stem cell programs, lower expense under the December 2012 restructuring plan as compared to the November 2011 restructuring plan, lower general and administrative expenses related to non-cash stock based compensation expense, the receipt of proceeds in December 2012 as consideration for the

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assignment of our telomerase activation technology to TA Sciences and the recognition of debt extinguishment charges in November 2011 for the early termination of the loan agreement with CIRM. Overall net loss for 2011 decreased compared to 2010 primarily due to recognition of acquired in-process research and development expense related to the in-license from Angiochem in December 2010, partially offset by increased research and development expenses resulting from costs incurred to support the initiation and enrollment of our Phase 2 clinical trials of imetelstat and GRN1005 and Phase 1 clinical trial of GRNOPC1, higher general and administrative expenses related to non-cash stock-based compensation expense and severance expense for our former CEO and CFO, charges incurred for the November 2011 restructuring plan and debt extinguishment charges for the early termination of the loan agreement with CIRM.

Liquidity and Capital Resources

Cash, restricted cash, cash equivalents and marketable securities at December 31, 2012 were $96.3 million, compared to $154.2 million at December 31, 2011 and $221.3 million at December 31, 2010. We have an investment policy to invest these funds in liquid, investment grade securities, such as interest-bearing money market funds, certificates of deposit, municipal securities, U.S. government and agency securities, corporate notes and commercial paper. Our investment portfolio does not contain securities with exposure to sub-prime mortgages, collateralized debt obligations, asset-backed securities or auction rate securities and, to date, we have not recognized any other-than-temporary impairment on our marketable securities or any significant changes in aggregate fair value that would impact our cash resources or liquidity. To date, we have not experienced lack of access to our invested cash and cash equivalents; however, access to our invested cash and cash equivalents may be impacted by adverse conditions in the financial and credit markets. The decrease in cash, restricted cash, cash equivalents and marketable securities in 2012 and 2011 was the result of cash being used for operations.

In October 2012, we entered into an At-the-Market Issuance Sales Agreement, or sales agreement, with MLV & Co. LLC, or MLV, which provides that, upon the terms and subject to the conditions and limitations set forth in the sales agreement, we may elect to issue and sell shares of our common stock having an aggregate offering price of up to $50.0 million from time to time through MLV as our sales agent. We are not obligated to make any sales of common stock under the sales agreement. To date, we have not sold any common stock pursuant to the sales agreement.

We estimate that our existing capital resources, amounts available to us under our equipment financing facility and future interest income will be sufficient to fund our current level of operations through at least the next 12 months. However, our future capital requirements will be substantial. Changes in our research and development plans or other changes affecting our operating expenses or cash balances may result in the unexpected expenditure of available resources. Factors that may require us to use our available capital resources sooner than we anticipate include:

- the accuracy of the assumptions underlying our estimates for our capital needs for 2013 and beyond;
- changes in our clinical development plans for imetelstat;
- our ability to meaningfully reduce manufacturing costs of imetelstat;
- the magnitude and scope of our research and development programs, including the number and type of product candidates and indications we intend to pursue;
- the progress we make in our research and development programs, preclinical development and clinical trials, as well as in investigator-sponsored trials;

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our ability to establish, enforce and maintain strategic arrangements for research, development, clinical testing, manufacturing and marketing;

our ability to fully complete the divestiture of our stem cell assets to BAC;

the time and costs involved in obtaining regulatory clearances and approvals; and

the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims.

If our existing capital resources, equipment financing arrangement and future interest income are insufficient to meet future capital requirements, we will need to raise additional capital to fund our operations. We anticipate that we would need to seek additional funding through strategic collaborations, public or private equity financings, including pursuant to our sales agreement with MLV, equipment loans or other financing sources that may be available. However, we may be unable to raise sufficient additional capital when we need it, on favorable terms or at all. Our ability to raise additional funds may be severely impaired if imetelstat fails to show adequate safety or efficacy in clinical testing. If we are unable to obtain adequate funds on reasonable terms, we may be required to curtail operations significantly or obtain funds by entering into financing, supply or collaboration agreements on unattractive terms or we may be required to relinquish rights to technology or imetelstat or to grant licenses on terms that are unfavorable to us.

Cash Flows from Operating Activities

Net cash used in operations was $55.1 million, $62.4 million and $44.3 million in 2012, 2011 and 2010, respectively. The decrease in net cash used in operations in 2012 compared to 2011 was primarily the result of discontinuing development of our stem cell programs in November 2011. The increase in net cash used in operations in 2011 compared to 2010 was primarily the net result of increased research and development expenses associated with our clinical operations and reduced issuances of our common stock in exchange for services.

Cash Flows from Investing Activities

Net cash provided by investing activities was $61.0 million and $32.1 million in 2012 and 2011, respectively. Net cash used in investing activities was $48.5 million in 2010. The change in cash flows from investing activities in 2012 compared to 2011 and 2011 compared to 2010 was primarily the result of higher proceeds from maturities of marketable securities relative to purchases of marketable securities during the respective periods.

For the three years ended December 31, 2012, we have purchased approximately $2.3 million in property and equipment, net of disposals, none of which was financed through equipment financing arrangements. As of December 31, 2012, no payments were due under our equipment financing facility. As of December 31, 2012, we had approximately $500,000 available for borrowing under our equipment financing facility. If we are unable to renew the commitment, we will use our cash resources for capital expenditures.

Cash Flows from Financing Activities

Net cash provided by financing activities in 2012, 2011 and 2010 was $150,000, $386,000 and $104.1 million, respectively. Net cash provided by financing activities in 2012 and 2011 reflected receipt of $150,000 and $386,000, respectively, from the issuance of common stock under our employee equity plans. Net cash provided by financing activities in 2010 primarily reflected receipt of approximately $93.7 million in net proceeds from an underwritten public offering of 20,000,000 shares of our common stock at a public offering price of $5.00 per share after deducting underwriting discounts and commissions and offering expenses and the receipt of approximately $10.0 million in net proceeds from

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the sale of 1,481,481 shares of our common stock and warrants to purchase an additional 740,741 shares of our common stock to certain institutional investors in connection with the exchange of warrants held by those investors for shares of our common stock.

Significant Cash and Contractual Obligations

As of December 31, 2012, our contractual obligations for the next five years and thereafter were as follows:

	Payments Due by Period				
Contractual Obligations[1]	**Total**	**Less Than 1 Year**	**1 - 3 Years**	**4 - 5 Years**	**After 5 Years**
			(In thousands)		
Equipment lease	$ 6	$ 6	$	$	$
Operating leases[2]	2,194	1,415	779		
Research funding and license fees[3]	1,704	406	408	356	534
Total contractual cash obligations	$ 3,904	$ 1,827	$ 1,187	$ 356	$ 534

(1) This table does not include payments under our severance plan if there were a change in control of Geron or severance payments to key employees in the event of an involuntary termination. In addition, this table does not include any milestone payment or royalty obligations under our research collaborations or license agreements as the timing and likelihood of such payments are not known. In addition to the minimum payments due under all of our current research collaborations and license agreements, we may be required to pay royalties on any product sales and up to an aggregate of $4.9 million in development milestone payments, in the event that all clinical development milestone events under these agreements are achieved.

(2) In February 2012, we entered into a lease agreement for our premises at 149 Commonwealth Drive, which commenced in July 2012 and expires in July 2014. Our lease at 149 Commonwealth Drive includes an option to extend the lease for one additional period of two years. In June 2012, we amended the lease agreement for our premises at 200 Constitution Drive to extend the term of the lease through July 2014. Operating lease obligations in the table above do not assume the exercise by us of any right of termination, or option to extend, if any.

(3) Research funding is comprised of sponsored research commitments at various laboratories around the world. License fees are comprised of minimum annual license payments under our existing license agreements with several universities and companies for the right to use intellectual property related to technologies that we have in-licensed.

Off-Balance Sheet Arrangements

We have not engaged in any off-balance sheet arrangements, including the use of structured finance, special purpose entities or variable interest entities.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

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

Credit Risk. We currently place our cash, restricted cash, cash equivalents and marketable securities with five financial institutions in the United States. Deposits with banks may exceed the

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amount of insurance provided on such deposits. While we monitor the cash balances in our operating accounts and adjust the cash balances as appropriate, these cash balances could be impacted if the underlying financial institutions fail or could be subject to other adverse conditions in the financial markets. Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash equivalents and marketable securities. Cash equivalents and marketable securities currently consist of money market funds, U.S. government-sponsored enterprise securities, commercial paper and corporate notes. Our investment policy, approved by the Audit Committee of our Board of Directors, limits the amount we may invest in any one type of investment issuer, thereby reducing credit risk concentrations. We limit our credit and liquidity risks through our investment policy and through regular reviews of our portfolio against our policy. To date, we have not experienced any loss or lack of access to cash in our operating accounts or to our cash equivalents and marketable securities in our investment portfolio. The effect of a hypothetical decrease of 10% in the average yield earned on our cash equivalents and marketable securities would have resulted in an immaterial decrease in our interest income for the year ended December 31, 2012.

Interest Rate Risk. The primary objective of our investment activities is to manage our marketable securities portfolio to preserve principal and liquidity while maximizing the return on the investment portfolio through the full investment of available funds without significantly increasing risk. To achieve this objective, we invest in widely diversified investments consisting of both fixed rate and floating rate interest earning instruments, which both carry a degree of interest rate risk. Fixed rate securities may have their fair value adversely impacted due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future interest income may fall short of expectations due to changes in market conditions and in interest rates or we may suffer losses in principal if forced to sell securities which may have declined in fair value due to changes in interest rates.

The fair value of our cash equivalents and marketable securities at December 31, 2012 was $92.3 million. These investments include $18.8 million of cash equivalents which are due in less than 90 days and $73.5 million of short-term investments which are due in less than one year. We primarily invest our marketable securities portfolio in securities with at least an investment grade rating to minimize interest rate and credit risk as well as to provide for an immediate source of funds. Although changes in interest rates may affect the fair value of the marketable securities portfolio and cause unrealized gains or losses, such gains or losses would not be realized unless the investments are sold. Due to the nature of our investments, which are primarily money market funds, U.S. government-sponsored enterprise securities, commercial paper and corporate notes, we have concluded that there is no material interest rate risk exposure and a 1% movement in market interest rates would not have a significant impact on the total value of our portfolio.

Foreign Currency Exchange Risk. Because we translate foreign currencies into U.S. dollars for reporting purposes, currency fluctuations can have an impact, though generally immaterial, on our operating results. We believe that our exposure to currency exchange fluctuation risk is insignificant given our cash balances held in foreign currencies represent less than one percent of our total cash and investment balances as of December 31, 2012. Further, the effect of an immediate 10% change in foreign currency rates would have no material impact on our financial condition, results of operations or cash flows at December 31, 2012. As of December 31, 2012, we did not engage in foreign currency hedging activities.

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ITEM 8. CONSOLIDATED FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The following consolidated financial statements and the related notes thereto, of Geron Corporation and the Report of Independent Registered Public Accounting Firm, Ernst & Young LLP, are filed as a part of this Form 10-K.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Geron Corporation

We have audited the accompanying consolidated balance sheets of Geron Corporation as of December 31, 2012 and 2011, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2012. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Geron Corporation at December 31, 2012 and 2011, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2012, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Geron Corporation's internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 15, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Redwood City, California
March 15, 2013

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GERON CORPORATION

CONSOLIDATED BALANCE SHEETS

	December 31,	
	2012	2011
	(In thousands, except share and per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 22,063	$ 16,105
Restricted cash	794	793
Current portion of marketable securities	73,472	105,208
Interest and other receivables	752	1,398
Prepaid assets	1,336	2,121
Total current assets	98,417	125,625
Noncurrent portion of marketable securities		32,133
Property and equipment, net	974	1,241
Deposits and other assets	410	1,048
	$ 99,801	$ 160,047
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,429	$ 2,980
Accrued compensation and benefits	5,216	3,029
Accrued restructuring charges	1,972	3,730
Accrued liabilities	3,480	3,641
Fair value of derivatives	51	64
Total current liabilities	14,148	13,444
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.001 par value; 3,000,000 shares authorized; no shares issued and outstanding at December 31, 2012 and 2011		
Common stock, $0.001 par value; 300,000,000 and 200,000,000 shares authorized; 130,242,695 and 131,443,148 shares issued and outstanding; at December 31, 2012 and 2011, respectively	130	131
Additional paid-in capital	939,867	932,066
Accumulated deficit	(854,384)	(785,503)
Accumulated other comprehensive income (loss)	40	(91)
Total stockholders' equity	85,653	146,603
	$ 99,801	$ 160,047

See accompanying notes.

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GERON CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,		
	2012	2011	2010
	(In thousands, except share and per share data)		
Revenues from collaborative agreements	$	$ 300	$ 925
License fees and royalties	2,709	2,138	2,638
Total revenues	2,709	2,438	3,563
Operating expenses:			
Research and development (including amounts for related parties: 2012 none, 2011 none, 2010 $697)	51,368	69,316	61,687
Acquired in-process research and development			35,000
Restructuring charges	2,702	5,449	
General and administrative	20,397	23,789	18,043
Total operating expenses	74,467	98,554	114,730
Loss from operations	(71,758)	(96,116)	(111,167)
Unrealized gain on derivatives, net	13	643	190
Interest and other income	3,097	1,024	2,045
Losses recognized under equity method investment		(503)	(2,347)
Losses recognized from debt extinguishment		(1,664)	
Interest and other expense	(233)	(237)	(98)
Net loss	$ (68,881)	$ (96,853)	$ (111,377)
Basic and diluted net loss per share	$ (0.54)	$ (0.78)	$ (1.14)
Shares used in computing basic and diluted net loss per share	126,941,024	124,506,763	97,601,520

See accompanying notes.

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GERON CORPORATION

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	Year Ended December 31,		
	2012	2011	2010
	(In thousands)		
Net loss	$ (68,881)	$ (96,853)	$ (111,377)
Other comprehensive income (loss):			
Net unrealized (loss) gain on available-for-sale securities	(38)	6	306
Foreign currency translation adjustments	16	(1)	4
Reclassification of accumulated foreign currency translation adjustments	153		
Other comprehensive income	131	5	310
Comprehensive loss	$ (68,750)	$ (96,848)	$ (111,067)

See accompanying notes.

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GERON CORPORATION

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
	Shares	Amount				
	(In thousands, except share data)					
Balances at December 31, 2009	92,521,946	$ 92	$ 750,158	$ (577,267)	$ (406)	$ 172,577
Net loss				(111,377)		(111,377)
Other comprehensive income					310	310
Issuance of common stock in connection with public offering, net of issuance costs of $6,300	20,000,000	20	93,680			93,700
Issuance of common stock in connection with private offering, net of issuance costs of $44	4,181,481	4	9,952			9,956
Stock-based compensation related to issuance of common stock and options in exchange for services	1,994,993	2	11,685			11,687
Issuance of common stock under equity plans, net of cancellations of non-vested restricted stock	3,654,057	4	547			551
Stock-based compensation for equity-based awards to employees and directors			13,718			13,718
Distribution to TA Therapeutics, Ltd. shareholder				(6)		(6)
401(k) contribution	264,252	1	1,618			1,619
Balances at December 31, 2010	122,616,729	123	881,358	(688,650)	(96)	192,735
Net loss				(96,853)		(96,853)
Other comprehensive income					5	5
Issuance of common stock in connection with acquired in-process research technology	5,261,144	5	28,089			28,094
Stock-based compensation related to issuance of common stock and options in exchange for services	180,954		715			715
Issuance of common stock under equity plans, net of cancellations of non-vested restricted stock	3,031,121	3	3,260			3,263
Stock-based compensation for equity-based awards to employees and directors			15,249			15,249
Debt discount in connection with warrant issuances			1,715			1,715
401(k) contribution	353,200		1,680			1,680
Balances at December 31, 2011	131,443,148	131	932,066	(785,503)	(91)	146,603
Net loss				(68,881)		(68,881)
Other comprehensive income					131	131
Stock-based compensation related to issuance of common stock and options in exchange for services	170,298		135			135
Cancellation of non-vested restricted stock under equity plans, net of issuances of common stock	(2,592,375)	(2)	269			267
Stock-based compensation for equity-based awards to employees and directors			5,311			5,311
401(k) contribution	1,221,624	1	2,086			2,087
Balances at December 31, 2012	130,242,695	$ 130	$ 939,867	$ (854,384)	$ 40	$ 85,653

See accompanying notes.

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GERON CORPORATION

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,		
	2012	2011	2010
	(In thousands)		
Cash flows from operating activities:			
Net loss	$ (68,881)	$ (96,853)	$ (111,377)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	830	1,580	1,609
Accretion and amortization on investments, net	2,184	4,422	3,568
Accretion of discount on long-term debt		51	
Loss on debt extinguishment		1,664	
(Gain) loss on sale/retirement of property and equipment	(142)	5	75
Loss on impairment of excess equipment	271	874	
Loss on sale of marketable securities		2	
Issuance of common stock in connection with acquired in-process research technology		594	27,500
Issuance of common stock in exchange for services by non-employees	183	744	8,673
Stock-based compensation for employees and directors	5,311	15,249	13,718
Amortization related to 401(k) contributions	726	709	647
Loss on equity method investment		503	2,347
Unrealized gain on fair value of derivatives	(13)	(643)	(190)
Changes in assets and liabilities:			
Interest and other receivables	646	401	(479)
Prepaid assets	1,311	4,085	2,866
Deposits and other assets	112	(658)	(45)
Accounts payable	449	(482)	1,288
Accrued compensation and benefits	3,548	944	5,401
Accrued restructuring charges	(1,758)	3,730	
Accrued liabilities	(92)	1,038	803
Deferred revenue		(350)	(700)
Translation adjustment	169	(1)	4
Net cash used in operating activities	(55,146)	(62,392)	(44,292)
Cash flows from investing activities:			
Restricted cash transfer	(1)	(1)	(1)
Loan to related party			(1,500)
Investment in licensee, net			(23)
Purchases of property and equipment	(862)	(612)	(836)
Proceeds from sale of property and equipment	170		2
Purchases of marketable securities	(79,369)	(144,890)	(183,414)
Proceeds from sales of marketable securities		809	
Proceeds from maturities of marketable securities	141,016	176,832	137,320
Proceeds from sale of investment in licensees		1	
Net cash provided by (used in) investing activities	60,954	32,139	(48,452)
Cash flows from financing activities:			
Proceeds from issuance of long-term debt		6,422	
Repayment of long-term debt		(6,422)	
Distribution to TA Therapeutics, Ltd. shareholder			(6)
Proceeds from issuance of common stock and warrants, net of issuance costs	150	386	104,121
Net cash provided by financing activities	150	386	104,115
Net increase (decrease) in cash and cash equivalents	5,958	(29,867)	11,371
Cash and cash equivalents, at beginning of year	16,105	45,972	34,601
Cash and cash equivalents, at end of year	$ 22,063	$ 16,105	$ 45,972

Supplemental disclosure of cash flow information:			
Cash paid for interest	$	$ 37	$

See accompanying notes.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization

Geron Corporation, or we or Geron, was incorporated in the State of Delaware on November 28, 1990. We are a biopharmaceutical company developing first-in-class therapies for cancer. Our product candidate, imetelstat, a telomerase inhibitor, has shown recent clinical activity in essential thrombocythemia. We may develop imetelstat to treat one or more hematologic myeloid malignancies such as myelofibrosis, myelodysplastic syndromes, or acute myelogenous leukemia. Imetelstat is based on our core expertise in telomerase and telomere biology. Principal activities to date have included obtaining financing, securing operating facilities and conducting research and development. We have no therapeutic products currently available for sale and do not expect to have any therapeutic products commercially available for sale for a period of years, if at all. These factors indicate that our ability to continue research and development activities is dependent upon the ability of our management to obtain additional financing as required.

Principles of Consolidation

The consolidated financial statements include the accounts of Geron, our former wholly-owned subsidiary, Geron Bio-Med Ltd., or Geron Bio-Med, a United Kingdom company, and our former majority-owned subsidiary, TA Therapeutics, Ltd., or TAT, a Hong Kong company. We have eliminated all intercompany accounts and transactions.

We prepared the financial statements of Geron Bio-Med using the local currency as the functional currency. We translated the assets and liabilities of Geron Bio-Med at rates of exchange at the balance sheet date and translated income and expense items at average monthly rates of exchange. The resultant translation adjustments were included in accumulated other comprehensive income (loss), a separate component of stockholders' equity. In March 2012, the board of directors and shareholders of Geron Bio-Med approved actions to commence a voluntary winding up of the company. The full wind up of Geron Bio-Med was completed in August 2012. In connection with the dissolution of Geron Bio-Med, we recognized an expense of $153,000 for accumulated foreign currency translation adjustments, which has been included in interest and other expense in our consolidated statements of operations.

The functional currency for TAT was U.S. dollars. In July 2010, the board of directors and shareholders of TAT approved actions to commence a voluntary winding up of the company. In connection with the winding up of TAT, all intellectual property owned by TAT has been assigned to Geron. Biotechnology Research Corporation, or BRC, a minority shareholder, is entitled to receive royalty payments for future sales of products covered by the intellectual property owned by TAT up to an amount equal to 150% of BRC's original capital contributions to TAT. In November 2010, the net remaining assets of TAT were distributed to its shareholders, resulting in a payment of $6,000 to BRC and $17,000 to Geron. We incurred related party research and development costs of $697,000 for the year ended December 31, 2010 in connection with TAT. No comparable amounts were recognized for the years ended December 31, 2012 and 2011. The full wind up of TAT was completed in March 2011.

We have evaluated whether significant transactions required consideration of the variable interest consolidation model and have concluded that we were not the primary beneficiary of any variable interest entity. See Note 3 on Equity Method Investment.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Net Loss Per Share

Basic earnings (loss) per share is calculated based on the weighted average number of shares of common stock outstanding during the period. Diluted earnings (loss) per share is calculated based on the weighted average number of shares of common stock and potential dilutive securities outstanding during the period. Potential dilutive securities primarily consist of outstanding employee stock options, restricted stock and warrants to purchase common stock and are determined using the treasury stock method at an average market price during the period.

Because we are in a net loss position, diluted earnings (loss) per share excludes the effects of potential dilutive securities. Had we been in a net income position, diluted earnings per share would have included the shares used in the computation of basic net loss per share as well as an additional 11,497, 294,426 and 1,204,692 shares for 2012, 2011 and 2010, respectively, related to outstanding options, restricted stock and warrants (as determined using the treasury stock method at the estimated average market value).

Use of Estimates

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

Fair Value of Financial Instruments

Cash Equivalents and Marketable Securities

We consider all highly liquid investments with an original maturity of three months or less to be cash equivalents. We are subject to credit risk related to our cash equivalents and marketable securities. We place our cash and cash equivalents in money market funds, corporate notes and cash operating accounts. Our marketable securities include U.S. government-sponsored enterprise securities, commercial paper and corporate notes with original maturities ranging from four to 23 months.

We classify our marketable securities as available-for-sale. We record available-for-sale securities at fair value with unrealized gains and losses reported in accumulated other comprehensive income (loss) in stockholders' equity. Realized gains and losses are included in interest and other income and are derived using the specific identification method for determining the cost of securities sold and have been insignificant to date. Dividend and interest income are recognized when earned and included in interest and other income in our consolidated statements of operations. We recognize a charge when the declines in the fair values below the amortized cost basis of our available-for-sale securities are judged to be other-than-temporary. We consider various factors in determining whether to recognize an other-than-temporary charge, including whether we intend to sell the security or whether it is more likely than not that we would be required to sell the security. Declines in market value associated with credit losses judged as other-than-temporary result in a charge to interest and other income. Other-than-temporary charges not related to credit losses are included in accumulated other comprehensive income (loss) in stockholders' equity. No other-than-temporary impairment charges were recorded for our available-for-sale securities for the years ended December 31, 2012, 2011 and 2010. See Note 2 on Fair Value Measurements.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Non-Marketable Investments in Licensees

Investments in non-marketable nonpublic companies, in which we own less than 20% of the outstanding voting stock and do not otherwise have the ability to exert significant influence over the investees, are carried at cost, as adjusted for other-than-temporary impairments. We apply the equity method of accounting for investments in licensees in which we own more than 20% of the outstanding voting stock or otherwise have the ability to exert significant influence over the investees. Under this method, we increase (decrease) the carrying value of our investment by a proportionate share of the investee's earnings (losses). If losses exceed the carrying value of the investment, losses are then applied against any advances to the investee, including any commitment to provide financial support, until those amounts are reduced to zero. Commitments to provide financial support include formal guarantees, implicit arrangements, reputational expectations, intercompany relationships or a consistent past history of providing financial support. The equity method is then suspended until the investee has earnings. Any proportionate share of investee earnings is first applied to the share of accumulated losses not recognized during the period the equity method was suspended. We recognize previously suspended losses to the extent additional investment is determined to represent the funding of prior losses. See Note 3 on Equity Method Investment.

Fair Value of Derivatives

For non-employee options classified as assets or liabilities, the fair value of these instruments is recorded on the consolidated balance sheet at inception and adjusted to fair value at each financial reporting date. The change in fair value of the non-employee options is recorded in the consolidated statements of operations as unrealized gain (loss) on derivatives. Fair value of non-employee options is estimated using the Black Scholes option-pricing model. The non-employee options continue to be reported as an asset or liability until such time as the instruments are exercised or expire or are otherwise modified to remove the provisions which require this treatment, at which time these instruments are marked to fair value and reclassified from assets or liabilities to stockholders' equity. For non-employee options classified as permanent equity, the fair value of the non-employee options is recorded in stockholders' equity as of their respective vesting dates and no further adjustments are made. See Note 2 on Fair Value Measurements.

Revenue Recognition

We have entered into several license agreements with various oncology, diagnostics, research tools, agriculture and biologics production companies. With certain of these agreements, we receive non-refundable license payments in cash or equity securities, option payments in cash or equity securities, cost reimbursements, milestone payments, royalties on future sales of products, or any combination of these items. Upfront non-refundable signing, license or non-exclusive option fees are recognized as revenue when rights to use the intellectual property related to the license have been delivered and over the term of the agreement if we have continuing performance obligations. We recognize revenue under collaborative agreements as the related research and development costs for services are rendered. Milestone payments, which are subject to substantive contingencies, are recognized as revenue upon completion of specified milestones, representing the culmination of the earnings process, according to contract terms. Royalties are generally recognized upon receipt of the related royalty payment. Deferred revenue represents the portion of research and license payments

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

received which has not been earned. When payments are received in equity securities, we do not recognize any revenue unless such securities are determined to be realizable in cash.

Restricted Cash

Restricted cash consists of funds maintained in separate certificate of deposit accounts for specified purposes. The components of restricted cash were as follows:

	December 31,	
	2012	2011
	(In thousands)	
Certificate of deposit for unused equipment line of credit	$ 530	$ 530
Certificate of deposit for credit card purchases	264	263
	$ 794	$ 793

Research and Development Expenses

Research and development expenses consist of expenses incurred in identifying, developing and testing product candidates resulting from our independent efforts as well as efforts associated with collaborators. These expenses include, but are not limited to, acquired in-process research and development deemed to have no alternative future use, payroll and personnel expense, lab supplies, preclinical studies, clinical trials, raw materials to manufacture clinical trial drugs, manufacturing costs for research and clinical trial materials, sponsored research at other labs, consulting, costs to maintain technology licenses and research-related overhead. Research and development costs are expensed as incurred, including payments made under our license agreements.

Clinical Trial Costs

A significant component of our research and development expenses is clinical trial costs. Substantial portions of our preclinical studies and all of our clinical trials have been performed by third-party contract research organizations, or CROs, and other vendors. We accrue expenses for preclinical studies performed by our vendors based on certain estimates over the term of the service period and adjust our estimates as required. We accrue expenses for clinical trial activities performed by CROs based upon the estimated amount of work completed on each study. For clinical trial expenses, the significant factors used in estimating accruals include the number of patients enrolled, the number of active clinical sites and the duration for which the patients will be enrolled in the study. We monitor patient enrollment levels and related activities to the extent possible through internal reviews, review of contractual terms and correspondence with CROs. We base our estimates on the best information available at the time. However, additional information may become available to us which would allow us to make a more accurate estimate in future periods. In this event, we may be required to record adjustments to research and development expenses in future periods when the actual level of activity becomes more certain.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Depreciation and Amortization

We record property and equipment at cost and calculate depreciation using the straight-line method over the estimated useful lives of the assets, generally four years. Leasehold improvements are amortized over the shorter of the estimated useful life or remaining term of the lease.

Stock-Based Compensation

We maintain various stock incentive plans under which stock options and restricted stock awards are granted to employees, non-employee members of our Board of Directors and consultants. We also have an employee stock purchase plan for all eligible employees. We recognize stock-based compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period. For additional information, see Note 10 on Stockholders' Equity.

Stock Options and Employee Stock Purchase Plan

We use the Black Scholes option-pricing model to estimate the grant-date fair value of our stock options and employee stock plan purchases. The determination of fair value for these stock-based awards on the date of grant using the Black Scholes option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, the period of time that the awards are expected to be outstanding, which is based on historical exercise and post-vesting cancellation data and our projected stock price volatility over the period of time the awards are expected to be outstanding, which is based on historical volatilities of our stock. We grant service-based stock options under our equity plans to employees, non-employee directors and consultants, for which the vesting period is generally four years.

Restricted Stock Awards

We grant restricted stock awards to employees and non-employee directors with three types of vesting schedules: (i) service-based, (ii) performance-based or (iii) market-based. Service-based awards generally vest annually over four years. Performance-based awards vest upon achievement of discrete strategic corporate goals within a specified performance period, generally three years. Market-based awards vest only upon achievement of certain market price thresholds of our common stock within a specified performance period, generally three years.

The fair value for service-based restricted stock awards is determined using the fair value of our common stock on the date of grant. The fair value is amortized as stock-based compensation expense over the requisite service period of the award on a straight-line basis and is reduced for estimated forfeitures, as applicable.

The fair value for performance-based restricted stock awards is determined using the fair value of our common stock on the date of grant. Stock-based compensation expense for awards with performance conditions is recognized over the period from the date the performance condition is determined to be probable of occurring through the date the applicable condition is expected to be met and is reduced for estimated forfeitures, as applicable. If the performance condition is not considered probable of being achieved, no stock-based compensation expense is recognized until such time as the performance condition is considered probable of being met, if ever. If performance-based restricted stock awards are modified such that no continuing service is required for the award to vest and

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

achievement of the performance condition is not considered probable on the date of modification, then no stock-based compensation cost is recognized until it becomes probable that the performance condition will be met. If that assessment of the probability of the performance condition being met changes, the impact of the change in estimate would be recognized in the period of the change. If the requisite service has been met prior to the change in estimate, the effect of the change in estimate would be immediately recognized.

The fair value for market-based restricted stock awards is determined using a lattice valuation model with a Monte Carlo simulation. The model takes into consideration the historical volatility of our stock and the risk-free interest rate at the date of grant. In addition, the model is used to estimate the derived service period for the awards. The derived service period is the estimated period of time that would be required to satisfy the market condition, assuming the market condition will be satisfied. Stock-based compensation expense is recognized over the derived service period for the awards using the straight-line method and is reduced for estimated forfeitures, as applicable, but is accelerated if the market condition is achieved earlier than estimated.

Non-Employee Stock-Based Awards

For our non-employee stock-based awards, the measurement date on which the fair value of the stock-based award is calculated is equal to the earlier of (i) the date at which a commitment for performance by the counterparty to earn the equity instrument is reached or (ii) the date at which the counterparty's performance is complete. We recognize stock-based compensation expense for the fair value of the vested portion of non-employee awards in our consolidated statements of operations.

Accumulated Other Comprehensive Income (Loss)

Accumulated other comprehensive income (loss) includes certain changes in stockholders' equity which are excluded from net loss. The components of accumulated other comprehensive income (loss) were as follows:

	December 31,	
	2012	2011
	(In thousands)	
Unrealized gain on available-for-sale securities	$ 40	$ 78
Foreign currency translation adjustments		(169)
	$ 40	$ (91)

Income Taxes

We maintain deferred tax assets and liabilities that reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes and are subject to tests of recoverability. Our deferred tax assets include net operating loss carryforwards, research credits and capitalized research and development. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Our net deferred tax asset has been fully offset by a valuation allowance because of our history of losses. Any potential accrued interest and penalties related to unrecognized tax benefits within

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

operations would be recorded as income tax expense. To date, there have been no interest or penalties charged to us related to the underpayment of income taxes.

Concentrations of Customers and Suppliers

The majority of our revenues was earned in the United States. Two customers accounted for approximately 59%, 51% and 69% of our 2012, 2011 and 2010 revenues, respectively.

We contract third-party manufacturers to produce GMP-grade drugs for preclinical and clinical studies. We also contract for starting materials to supply those manufacturers and us. Certain development and clinical activities may be delayed if we are unable to obtain sufficient quantities of starting materials or GMP-grade drugs from our third-party suppliers or other third-party sources.

2. FAIR VALUE MEASUREMENTS

We categorize financial instruments recorded at fair value on our consolidated balance sheets based upon the level of judgment associated with inputs used to measure their fair value. The categories are as follows:

Level 1	Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date. An active market for the asset or liability is a market in which transactions for the asset or liability occur with sufficient frequency and volume to provide pricing information on an ongoing basis.
Level 2	Inputs (other than quoted market prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.
Level 3	Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Below is a description of the valuation methodologies used for instruments measured at fair value on our consolidated balance sheets, including the category for such instruments.

Cash Equivalents and Marketable Securities Available-for-Sale

Certificates of deposit and money market funds are categorized as Level 1 within the fair value hierarchy as their fair values are based on quoted prices available in active markets. U.S. Treasury securities, U.S. government-sponsored enterprise securities, municipal securities, corporate notes and commercial paper are categorized as Level 2 within the fair value hierarchy as their fair values are estimated by using pricing models, quoted prices of securities with similar characteristics or discounted cash flows.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. FAIR VALUE MEASUREMENTS (Continued)

Cash equivalents, restricted cash and marketable securities by security type at December 31, 2012 were as follows:

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(In thousands)		
Included in cash and cash equivalents:				
Money market funds	$ 15,660	$	$	$ 15,660
Corporate notes	3,136		(1)	3,135
	$ 18,796	$	$ (1)	$ 18,795
Restricted cash:				
Certificates of deposit	$ 794	$	$	$ 794
Marketable securities:				
Government-sponsored enterprise securities (due in less than 1 year)	$ 8,618	$ 5	$	$ 8,623
Commercial paper (due in less than 1 year)	20,623	21		20,644
Corporate notes (due in less than 1 year)	44,190	22	(7)	44,205
	$ 73,431	$ 48	$ (7)	$ 73,472

Cash equivalents, restricted cash and marketable securities by security type at December 31, 2011 were as follows:

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
		(In thousands)		
Included in cash and cash equivalents:				
Money market funds	$ 12,885	$	$	$ 12,885
Restricted cash:				
Certificates of deposit	$ 793	$	$	$ 793
Marketable securities:				
Certificate of deposit (due in less than 1 year)	$ 329	$	$	$ 329
Government-sponsored enterprise securities (due in less than 1 year)	15,061	25	(1)	15,085
Government-sponsored enterprise securities (due in 1 to 2 years)	6,998	18	(12)	7,004
Commercial paper (due in less than 1 year)	39,206	41		39,247
Corporate notes (due in less than 1 year)	50,556	19	(28)	50,547
Corporate notes (due in 1 to 2 years)	25,113	30	(14)	25,129
	$ 137,263	$ 133	$ (55)	$ 137,341

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. FAIR VALUE MEASUREMENTS (Continued)

Marketable securities with unrealized losses at December 31, 2012 and 2011 were as follows:

	Less Than 12 Months		12 Months or Greater		Total	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
	(In thousands)					
As of December 31, 2012:						
Corporate notes (due in less than 1 year)	$ 27,045	$ (8)	$	$	$ 27,045	$ (8)
As of December 31, 2011:						
Government-sponsored enterprise securities (due in less than 1 year)	$ 5,021	$ (1)	$	$	$ 5,021	$ (1)
Government-sponsored enterprise securities (due in 1 to 2 years)	3,988	(12)			3,988	(12)
Corporate notes (due in less than 1 year)	33,847	(28)			33,847	(28)
Corporate notes (due in 1 to 2 years)	13,096	(14)			13,096	(14)
	$ 55,952	$ (55)	$	$	$ 55,952	$ (55)

The gross unrealized losses related to government-sponsored enterprise securities and corporate notes as of December 31, 2012 and 2011 were due to changes in interest rates. We determined that the gross unrealized losses on our marketable securities as of December 31, 2012 and 2011 were temporary in nature. We review our investments quarterly to identify and evaluate whether any investments have indications of possible impairment. Factors considered in determining whether a loss is temporary include the length of time and extent to which the fair value has been less than the cost basis and whether we intend to sell the security or whether it is more likely than not that we would be required to sell the security. We currently do not intend to sell these securities before recovery of their amortized cost basis.

In 2011, we received proceeds of $809,000 from the sale of a corporate note. In connection with the sale, we recognized a realized loss of $2,000.

Derivatives

Non-employee options are normally traded less actively, have trade activity that is one way, and/or traded in less-developed markets and are therefore valued based upon models with significant unobservable market parameters, resulting in Level 3 categorization.

Options held by non-employees whose performance obligations are complete are classified as derivative liabilities on our consolidated balance sheets. Upon the exercise of these options, the instruments are marked to fair value and reclassified from derivative liabilities to stockholders' equity. There were no reclassifications from current liabilities to stockholders' equity for non-employee option exercises in 2012 and 2011.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. FAIR VALUE MEASUREMENTS (Continued)

As of December 31, 2012 and 2011, the following non-employee options to purchase common stock were considered derivatives and classified as current liabilities:

Issuance Date	Exercise Price	Number of Shares at December 31, 2012	Number of Shares at December 31, 2011	Exercisable Date	Expiration Date	Fair Value at December 31, 2012	Fair Value at December 31, 2011
						(In thousands)	
March 2005	$ 6.39	284,600	284,600	January 2007	March 2015	$ 51	$ 64

The fair value of derivatives has been calculated at each reporting date using the Black Scholes option-pricing model with the following assumptions:

	December 31, 2012	December 31, 2011
Dividend yield	None	None
Expected volatility	0.828	0.714
Risk-free interest rate	0.25%	0.36%
Expected term	2 yrs	3 yrs

Dividend yield is based on historical cash dividend payments and Geron has paid no dividends to date. The expected volatility is based on historical volatilities of our stock since traded options on Geron stock do not correspond to derivatives' terms and trading volume of Geron options is limited. The risk-free interest rate is based on the U.S. Zero Coupon Treasury Strip Yields for the expected term in effect on the reporting date. The expected term of derivatives is equal to the remaining contractual term of the instrument.

Fair Value on a Recurring Basis

The following table presents information about our financial instruments that are measured at fair value on a recurring basis as of December 31, 2012, and indicates the fair value category assigned.

	Fair Value Measurements at Reporting Date Using			
(In thousands)	Quoted Prices in Active Markets for Identical Assets/ Liabilities Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3	Total
Assets				
Money market funds[1]	$ 15,660	$	$	$ 15,660
Government-sponsored enterprise securities[2]		8,623		8,623
Commercial paper[2]		20,644		20,644
Corporate notes[1][2]		47,340		47,340
Total	$ 15,660	$ 76,607	$	$ 92,267
Liabilities				
Derivatives[3]	$	$	$ 51	$ 51

(1) Included in cash and cash equivalents on our consolidated balance sheet.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. FAIR VALUE MEASUREMENTS (Continued)

(2) Included in current marketable securities on our consolidated balance sheet.

(3) Included in fair value of derivatives on our consolidated balance sheet.

Changes in Level 3 Recurring Fair Value Measurements

The table below includes a rollforward of the balance sheet amounts for the year ended December 31, 2012, including the change in fair value, for financial instruments in the Level 3 category. When a determination is made to classify a financial instrument within Level 3, the determination is based upon the significance of the unobservable parameters to the overall fair value measurement. However, Level 3 financial instruments typically include, in addition to the unobservable components, observable components (that is, components that are actively quoted and can be validated to external sources). Accordingly, the gains and losses in the table below include changes in fair value due in part to observable factors that are part of the methodology.

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3) Year Ended December 31, 2012					
(In thousands)	Fair Value at December 31, 2011	Total Unrealized Gain Included in Earnings, net[1]	Purchases, Sales, Issuances, Settlements, net	Transfers In and/or Out of Level 3	Fair Value at December 31, 2012	Change in Unrealized Gain Related to Financial Instruments Held at December 31, 2012[1]
Derivative liabilities	$ 64	$ (13)	$	$	$ 51	$ (13)

(1) Reported as unrealized gain on derivatives in our consolidated statements of operations.

Credit Risk

We currently place our cash, restricted cash, cash equivalents and marketable securities with five financial institutions in the United States. Generally, these deposits may be redeemed upon demand and therefore, bear minimal risk. Deposits with banks may exceed the amount of insurance provided on such deposits. Financial instruments that potentially subject us to concentrations of credit risk consist primarily of marketable securities. Marketable securities currently consist of investment grade U.S. government-sponsored enterprise securities, commercial paper and corporate notes. Our investment policy, approved by the Audit Committee of our Board of Directors, limits the amount we may invest in any one type of investment issuer, thereby reducing credit risk concentrations.

3. EQUITY METHOD INVESTMENT

In November 2010, we purchased an additional $23,000 in equity of ViaGen, Inc., or ViaGen, a company with in-house breeding services and expertise in advanced reproductive technologies for animal cloning, from another ViaGen shareholder, Moral Compass Corporation, or MCC, which increased our ownership of ViaGen from 28% to 40%. In addition, we provided a loan of $1,500,000 to ViaGen to fund its operations. The loan represented additional financial support to ViaGen and funded approximately $900,000 in prior losses of the company, which has been included in losses recognized under equity method investment in our consolidated statements of operations for the year ended December 31, 2010. In addition, since the loan represented additional financial support to ViaGen, we applied the equity method of accounting to the remaining balance of the loan and recognized $503,000

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. EQUITY METHOD INVESTMENT (Continued)

and $1,447,000 for our proportionate share of ViaGen's operating losses for the years ended December 31, 2011 and 2010, respectively, which has also been included in losses recognized under equity method investment in our consolidated statements of operations. No comparable amount was recognized for the year ended December 31, 2012 because we suspended the equity method of accounting in June 2011 since our proportionate share of net losses exceeded the value of our investment and we did not have any commitments to provide financial support or obligations to perform services or other activities for ViaGen. Since MCC continued to hold the majority of the equity and debt of ViaGen and maintained controlling financial interest over the company, including the power to direct the activities that most significantly impacted ViaGen's economic performance, we concluded that we were not the primary beneficiary of ViaGen and did not include ViaGen's financial information with our consolidated results.

In September 2012, we cancelled our outstanding loan to ViaGen and sold our entire equity interest to Trans Ova Genetics, L.C., or Trans Ova, in exchange for potential payments aggregating up to $2,400,000 upon reaching certain commercial milestones. We are also eligible to receive 40% of potential proceeds upon the sale by Trans Ova of a non-marketable equity investment held by ViaGen. These potential payments are subject to substantive contingencies and as such, we will recognize a gain only upon achievement of the milestones or sale, as applicable. Since we had no carrying value for our investment in ViaGen at the time of sale to Trans Ova and future payments from Trans Ova are subject to substantive contingencies, we have not recognized any loss or gain in connection with the sale of our equity interest in ViaGen.

4. PROPERTY AND EQUIPMENT

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

	December 31,	
	2012	2011
	(In thousands)	
Furniture and computer equipment	$ 2,816	$ 2,748
Lab equipment	7,731	9,676
Leasehold improvements	2,904	6,115
	13,451	18,539
Less accumulated depreciation and amortization	(12,477)	(17,298)
	$ 974	$ 1,241

5. EQUIPMENT LINE

In 2009, we renewed our equipment financing facility and had approximately $500,000 available for borrowing as of December 31, 2012 and 2011. This facility is secured by a certificate of deposit. Any outstanding principal balance bears a fixed interest rate equal to one and one-half percentage points above the Prime Rate. No amounts were due under this facility as of December 31, 2012 and 2011.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. ACCRUED LIABILITIES

Accrued liabilities consisted of the following:

	December 31,	
	2012	2011
	(In thousands)	
Costs for sponsored research and license agreements	$ 266	$ 417
Service provider obligations	290	511
Clinical trial costs	1,687	1,505
Other	1,237	1,208
	$ 3,480	$ 3,641

7. RESTRUCTURINGS

December 2012 Restructuring

On December 3, 2012, we announced the decision to discontinue development of GRN1005 and reduce our workforce from 107 positions to 64 full-time positions. Of the 43 positions eliminated, as of February 1, 2013, ten employees were continuing to provide services through various dates in the first half of 2013.

In connection with the December 2012 restructuring, we expect to record an aggregate restructuring charge related to one-time termination benefits and impairment of various assets of approximately $2,850,000, of which $2,702,000 was recorded in the fourth quarter of 2012, which includes $2,431,000 related to one-time termination benefits, including $107,000 of non-cash stock-based compensation expense related to the extension of the post-termination exercise period for certain stock options previously granted to terminated employees through the end of December 2013, and $271,000 related to write-downs of GRN1005 manufacturing equipment. The remaining restructuring charge will be recorded in the first half of 2013. We plan to sell the GRN1005 manufacturing equipment, the net proceeds of which may offset some of these future charges. We expect the restructuring will result in aggregate cash expenditures of approximately $2,472,000, of which $375,000 related to one-time termination benefits paid as of December 31, 2012 and approximately $2,097,000 relates to one-time termination benefits expected to be paid during 2013.

The components relating to the December 2012 restructuring, including the outstanding restructuring liability which is included in accrued restructuring charges on our consolidated balance sheets as of December 31, 2012, are summarized in the following table:

(In thousands)	Employee Severance and Other Benefits	Excess Equipment	Stock-Based Compensation	Total
Restructuring charge	$ 2,324	$ 271	$ 107	$ 2,702
Cash payments	(375)			(375)
Adjustments or non-cash credits		(271)	(107)	(378)
Ending accrual balance as of December 31, 2012	$ 1,949	$	$	$ 1,949

The restructuring charges that we expect to incur in connection with the December 2012 restructuring are subject to a number of assumptions, and actual results may materially differ. We may also incur other material charges not currently contemplated due to events that may occur as a result of, or associated with, the December 2012 restructuring.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. RESTRUCTURINGS (Continued)

November 2011 Restructuring

On November 14, 2011, we announced the decision to discontinue further development of our stem cell programs. With this decision, a total of 66 full-time positions were eliminated. Of those, 14 employees continued to provide services through various dates in the first half of 2012. In connection with the restructuring, we recorded aggregate restructuring charges of $5,449,000 for the year ended December 31, 2011, of which $4,575,000 related to one-time termination benefits, including $174,000 of non-cash stock-based compensation expense relating to the extension of the post-termination exercise period for certain stock options previously granted to terminated employees through the end of June 2013 and December 2013, and $874,000 related to write-downs of excess lab equipment and leasehold improvements and other charges. As of December 31, 2012, the restructuring resulted in aggregate cash expenditures of approximately $4,142,000 after adjustments and non-cash credits, of which $3,471,000 and $671,000 related to one-time termination benefits that were paid during 2012 and 2011, respectively. As of December 31, 2012, we have received proceeds of $170,000 from the sale of excess lab equipment written-down as a result of the November 2011 restructuring. All actions associated with the November 2011 restructuring were completed in 2012, and we do not anticipate incurring any further charges under the November 2011 restructuring.

The outstanding restructuring liability for the November 2011 restructuring is included in accrued restructuring charges on our consolidated balance sheets as of December 31, 2012 and 2011 and the components are summarized in the following table:

(In thousands)	Employee Severance and Other Benefits
Beginning accrual balance as of December 31, 2011	$ 3,730
Cash payments	(3,471)
Adjustments or non-cash credits	(236)
Ending accrual balance as of December 31, 2012	$ 23

8. LONG-TERM DEBT

Effective August 1, 2011, we entered into a loan agreement with the California Institute for Regenerative Medicine, or CIRM, solely to support development of our human embryonic stem-cell derived oligodendrocyte progenitor therapy, or GRNOPC1, for the treatment of acute spinal cord injury. In 2011 we received an aggregate total of $6,422,000 in disbursements under the Loan Agreement with CIRM. On November 14, 2011, in connection with our decision to discontinue development of our stem cell programs, we repaid $6,459,000 to CIRM, representing the entire amount of the outstanding principal balance under the Loan Agreement with CIRM, including accrued interest of $37,000. With the repayment of the entire outstanding balance to CIRM, we have no further amounts owed to CIRM.

In connection with each disbursement under the loan agreement, we were obligated to issue to CIRM a warrant to purchase Geron common stock. In connection with the disbursements received from CIRM in November 2011 and August 2011, we issued to CIRM warrants to purchase 461,382 and 537,893 shares of our common stock at an exercise price of $2.32 and $3.98 per share, respectively. Each of the warrants and the underlying common stock were unregistered and each warrant has a term of ten years from the respective date of issuance. We have no further obligations to issue any additional warrants to CIRM.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. LONG-TERM DEBT (Continued)

The carrying value of the loan from CIRM was determined by allocating the proceeds between the fair value of the debt and the warrants issued to CIRM using the relative fair value method. The discount resulting from the allocation of proceeds between the fair values of the debt and warrants was being amortized to interest expense and accreted to the principal face value of the debt using the effective interest rate method. In 2011, we recognized $88,000 of interest expense related to the CIRM loan, which reflected amortized debt discount of $51,000 and accrued interest of $37,000. With full repayment of the CIRM loan in November 2011, we recognized $1,664,000 as a loss from debt extinguishment in our consolidated statements of operations for the remaining unamortized debt discount on the loan.

9. COMMITMENTS AND CONTINGENCIES

Operating Lease Commitment

In February 2012, we entered into a lease agreement for our premises at 149 Commonwealth Drive. The lease expires in July 2014 and includes an option to extend the lease for one additional period of two years. In June 2012, we amended the lease agreement for our premises at 200 Constitution Drive to extend the term of the lease through July 2014. Future minimum payments under our operating leases for our premises at 149 Commonwealth Drive and 200 Constitution Drive for the years ended December 31, 2013 and 2014 are approximately $1,415,000 and $779,000, respectively, which does not assume the exercise by us of any right of termination, or option to extend, if any. Rent expense under our operating leases was approximately $1,474,000, $1,311,000 and $1,323,000 for the years ended December 31, 2012, 2011 and 2010, respectively.

Severance Plan

We have an Amended and Restated Severance Plan, or Severance Plan, that applies to all employees that are not subject to performance improvement plans, and most significantly provides for, among other benefits: (i) a severance payment upon a Change of Control Triggering Event and Separation from Service (as defined in the Severance Plan) and (ii) each non-executive employee to receive a severance payment upon a Non-Change of Control Triggering Event and Separation from Service (as defined in the Severance Plan). A Change of Control Triggering Event is defined as an event where: (i) an employee is terminated by us without cause in connection with a change of control or within 12 months following a change of control; or (ii) an employee is not offered comparable employment (new or continuing) by us or our successor or acquirer within 30 days after the change of control or any employment offer is rejected; or (iii) after accepting (or continuing) employment with us after a change of control, an employee resigns within six months following a change of control due to a material change in the terms of employment. A Non-Change of Control Triggering Event is defined as an event where a non-executive employee is terminated by us without cause. Severance payments range from 2 to 18 months of base salary, depending on the employee's position with us, payable in a lump sum payment. The Severance Plan also provides that the provisions of employment agreements entered into between the Company and executive or non-executive employees supersede the provisions of the Severance Plan. As of February 28, 2013, all our executive officers have employment agreements with provisions that may provide greater severance benefits than those in the Severance Plan. We have not made any payments under our Severance Plan.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. COMMITMENTS AND CONTINGENCIES (Continued)

Indemnifications to Officers and Directors

Our corporate bylaws require that we indemnify our officers and directors, as well as those who act as directors and officers of other entities at our request, against expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any proceedings arising out of their services to Geron. In addition, we have entered into separate indemnification agreements with each of our directors which provide for indemnification of these directors under similar circumstances and under additional circumstances. The indemnification obligations are more fully described in our bylaws and the indemnification agreements. We purchase standard insurance to cover claims or a portion of the claims made against our directors and officers. Since a maximum obligation is not explicitly stated in our bylaws or in our indemnification agreements and will depend on the facts and circumstances that arise out of any future claims, the overall maximum amount of the obligations cannot be reasonably estimated. There were no such obligations on our consolidated balance sheets as of December 31, 2012 and 2011.

10. STOCKHOLDERS' EQUITY

Warrants

As of December 31, 2012, the following warrants to purchase our common stock were outstanding and classified as equity:

Issuance Date	Exercise Price	Number of Shares	Exercisable Date	Expiration Date
November 2011	$ 2.32	461,382	November 2011	November 2021
August 2011	$ 3.98	537,893	August 2011	August 2021
September 2009	$ 9.00	150,000	September 2009	September 2014
April 2005	$ 3.75	470,000	April 2005	April 2015
		1,619,275		

Equity Plans

1992 Stock Option Plan

The 1992 Stock Option Plan, or 1992 Plan, expired in August 2002 upon which no further option grants were made from the 1992 Plan. The options granted under the 1992 Plan were either incentive stock options or nonstatutory stock options. Options to purchase shares of common stock generally vested over a period of four or five years from the date of the option grant, with a portion vesting after six months and the remainder vesting ratably over the remaining period. Options granted under the 1992 Plan expired no later than ten years from the date of grant.

2002 Equity Incentive Plan

The 2002 Equity Incentive Plan, or 2002 Plan, expired in May 2012. Upon the adoption of the 2011 Incentive Award Plan in May 2011 (see below), no further grants of options or stock purchase rights were made from the 2002 Plan. Options granted under the 2002 Plan expire no later than ten years from the date of grant. Option exercise prices were equal to 100% of the fair market value of the underlying common stock on the date of grant. Service-based stock options under our 2002 Plan

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

generally vest over a period of four years from the date of the option grant, with a portion vesting after six months and the remainder vesting ratably over the remaining period. Other stock awards (restricted stock awards and restricted stock units) have variable vesting schedules which were determined by our Board of Directors on the date of grant.

2011 Incentive Award Plan

In May 2011, our stockholders approved the adoption of the 2011 Incentive Award Plan, or 2011 Plan, to replace the 2002 Plan. Our Board of Directors administers the 2011 Plan. The 2011 Plan provides for grants to employees (including officers and employee directors) of either incentive stock or nonstatutory stock options and stock purchase rights to employees (including officers and employee directors) and consultants (including non-employee directors). As of December 31, 2012, we had reserved an aggregate of approximately 12,700,000 shares of our common stock for future grants of equity awards under the 2011 Plan. Pursuant to the terms of the 2011 Plan, any shares subject to outstanding stock options originally granted under the 1992 Plan, 2002 Plan or 1996 Directors' Stock Option Plan, or outstanding unvested restricted stock awards originally granted under the 2002 Plan, that expire or terminate for any reason prior to exercise or settlement or are forfeited because of the failure to meet a contingency or condition required to vest such shares shall become available for issuance under the 2011 Plan. Options granted under the 2011 Plan expire no later than ten years from the date of grant. Option exercise prices shall be equal to 100% of the fair market value of the underlying common stock on the date of grant. If, at the time we grant an option, the optionee directly or by attribution owns stock possessing more than 10% of the total combined voting power of all classes of our stock, the option price shall be at least 110% of the fair market value of the underlying common stock and shall not be exercisable more than five years after the date of grant.

We grant service-based stock options under our 2011 Plan that generally vest over a period of four years from the date of the option grant, with a portion vesting after six months and the remainder vesting ratably over the remaining period. Other stock awards (restricted stock awards and restricted stock units) have variable vesting schedules as determined by our Board of Directors on the date of grant.

Under certain circumstances, options may be exercised prior to vesting, subject to our right to repurchase shares subject to such option at the exercise price paid per share. Our repurchase rights would generally terminate on a vesting schedule identical to the vesting schedule of the exercised option. During 2012, we did not repurchase any shares under the 2011 Plan. As of December 31, 2012, no shares outstanding were subject to repurchase.

1996 Directors' Stock Option Plan

The 1996 Directors' Stock Option Plan, or 1996 Directors Plan, expired in July 2006 upon which no further option grants were made from the 1996 Directors Plan. The options granted under the 1996 Directors Plan were nonstatutory stock options and expire no later than ten years from the date of grant. The option exercise price was equal to the fair market value of the underlying common stock on the date of grant. Options to purchase shares of common stock generally were 100% vested upon grant, except for options granted upon first appointment to the Board of Directors, or First Option. The First Option vested annually over three years upon each anniversary date of appointment to the Board of Directors.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

2006 Directors' Stock Option Plan

In May 2006, our stockholders approved the adoption of the 2006 Directors' Stock Option Plan, or 2006 Directors Plan, to replace the 1996 Directors Plan. As of December 31, 2012, we had reserved an aggregate of approximately 850,000 shares of our common stock for future grants of equity awards under the 2006 Directors Plan. The 2006 Directors Plan provides for the automatic grant of the following types of equity awards.

First Director Option. Each person who becomes a non-employee director, whether by election of the stockholders of the Company or by appointment by our Board of Directors to fill a vacancy, will automatically be granted an option to purchase 70,000 shares of common stock on the date such person first becomes a non-employee director, or First Director Option. The First Director Option shall vest annually over three years upon each anniversary date of appointment to our Board of Directors.

Subsequent Director Option. Each non-employee director (other than any director receiving a First Director Option on the date of the annual meeting) will automatically be granted a subsequent option to purchase 35,000 shares of common stock, a Subsequent Director Option, on the date of the Annual Meeting of Stockholders in each year during such director's service on our Board of Directors. The Subsequent Director Option vests one year from the date of grant.

The exercise price of all options granted under the 2006 Directors Plan is equal to 100% of the fair market value of the underlying common stock on the date of grant. Options granted under the 2006 Directors Plan have a term of ten years from the date of grant.

Aggregate option and award activity for the 1992 Plan, 2002 Plan, 2011 Plan, 1996 Directors Plan and 2006 Directors Plan is as follows:

		Outstanding Options			
	Shares Available For Grant	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (In years)	Aggregate Intrinsic Value (In thousands)
Balance at December 31, 2011	14,473,498	14,355,548	$ 5.51		$ 1
Options granted	(7,532,500)	7,532,500	$ 1.51		
Awards granted	(79,679)		$		
Options exercised		(417)	$ 1.41		
Options canceled/forfeited	4,076,125	(4,076,125)	$ 4.50		
Awards canceled/forfeited	2,620,327		$		
Balance at December 31, 2012	13,557,771	17,811,506	$ 4.05	5.82	$ 2
Options exercisable at December 31, 2012		10,410,194	$ 5.49	3.45	$
Options fully vested and expected to vest at December 31, 2012		17,160,377	$ 4.13	5.69	$ 2

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

The aggregate intrinsic value in the preceding table represents the total intrinsic value, based on Geron's closing stock price of $1.41 per share as of December 31, 2012, which would have been received by the option holders had all the option holders exercised their options as of that date.

There were no options granted with an exercise price below or greater than fair market value of our common stock on the date of grant in 2012, 2011 or 2010. As of December 31, 2012, 2011 and 2010, there were 10,410,194, 10,109,076 and 9,706,299 exercisable options outstanding at weighted average exercise prices per share of $5.49, $6.02 and $6.99, respectively.

The total pretax intrinsic value of stock options exercised during 2012, 2011 and 2010 was $100, $56,000 and $110,000, respectively. Cash received from the exercise of options in 2012, 2011 and 2010 totaled approximately $1,000, $184,000 and $268,000, respectively. No income tax benefit was realized from stock options exercised in 2012 since we reported an operating loss.

Information about stock options outstanding as of December 31, 2012 is as follows:

	Options Outstanding		
Exercise Price Range	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Life (In years)
$1.33 - $1.37	27,000	$ 1.35	9.48
$1.41 - $1.41	4,664,229	$ 1.41	9.34
$1.42 - $3.98	4,478,988	$ 2.51	6.85
$4.30 - $11.07	8,641,289	$ 6.28	3.37
$1.33 - $11.07	17,811,506	$ 4.05	5.82

Aggregate restricted stock activity for the 2002 Plan, 2011 Plan and 2006 Directors Plan is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value Per Share	Weighted Average Remaining Contractual Term (In years)
Non-vested restricted stock at December 31, 2011	6,102,385	$ 4.28	1.70
Granted	79,679	$ 1.46	
Vested	(643,775)	$ 4.55	
Canceled/forfeited	(2,620,327)	$ 4.35	
Non-vested restricted stock at December 31, 2012[1]	2,917,962	$ 4.08	0.90

(1) Includes 1,663,000 performance-based restricted stock awards that have not achieved certain strategic goals and 714,000 market-based restricted stock awards that have not achieved certain market price thresholds.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

The total fair value of restricted stock that vested during 2012, 2011 and 2010 was $936,000, $7,402,000 and $3,408,000, respectively.

Employee Stock Purchase Plan

In July 1996, we adopted the 1996 Employee Stock Purchase Plan, or Purchase Plan, and as of December 31, 2012, we had reserved an aggregate of 1,200,000 shares of common stock for issuance under the Purchase Plan. As of December 31, 2012 and 2011, approximately 844,000 and 725,000 shares have been issued under the Purchase Plan, respectively, since its adoption. As of December 31, 2012, 356,390 shares were available for issuance under the Purchase Plan.

Under the terms of the Purchase Plan, employees can choose to have up to 10% of their annual salary withheld to purchase our common stock. An employee may not make additional payments into such account or increase the withholding percentage during the offering period.

The Purchase Plan is comprised of a series of offering periods, each with a maximum duration (not to exceed 12 months) with new offering periods commencing on January 1st and July 1st of each year. The date an employee enters the offering period will be designated as the entry date for purposes of that offering period. An employee may only participate in one offering period at a time. Each offering period consists of two consecutive purchase periods of six months' duration, with the last day of such period designated a purchase date.

The purchase price per share at which common stock is purchased by the employee on each purchase date within the offering period is equal to 85% of the lower of (i) the fair market value per share of Geron's common stock on the employee's entry date into that offering period or (ii) the fair market value per share of Geron's common stock on that purchase date. If the fair market value of Geron's common stock on the purchase date is less than the fair market value at the beginning of the offering period, a new 12 month offering period will automatically begin on the first business day following the purchase date with a new fair market value.

Effective for offering periods beginning July 1, 2009 and thereafter, shares purchased under the Purchase Plan shall be registered and available for trading in an open market transaction one year from the date of purchase, and certificates evidencing such shares shall bear a restrictive legend.

Stock-Based Compensation for Employees and Directors

We measure and recognize compensation expense for all share-based payment awards made to employees and directors, including employee stock options, restricted stock awards and employee stock purchases related to the Purchase Plan, based on grant-date fair values for these instruments. We grant service-based stock options and restricted stock awards under our equity plans to employees, non-employee directors and consultants, for which the vesting period is generally four years. We use the Black Scholes option-pricing model to estimate the grant-date fair value of our stock options and employee stock purchases. The fair value for service-based restricted stock awards is determined using the fair value of our common stock on the date of grant.

Our Board of Directors has awarded to our employees and directors performance-based restricted stock awards and market-based restricted stock awards. These restricted stock awards are included in the restricted stock activity table above. The fair value for performance-based restricted stock awards is determined using the fair value of our common stock on the date of grant. Performance-based

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

restricted stock awards vest only upon achievement of discrete strategic corporate goals within a specified performance period, generally three years. Stock-based compensation expense for awards with performance conditions is recognized over the period from the date the performance condition is determined to be probable of occurring through the date the applicable condition is expected to be met and is reduced for estimated forfeitures, as applicable. If the performance condition is not considered probable of being achieved, no stock-based compensation expense is recognized until such time as the performance condition is considered probable of being met, if ever. We have not recognized any stock-based compensation expense for performance-based restricted stock awards in our consolidated statements of operations for the years ended December 31, 2012, 2011 and 2010 as the achievement of the specified performance criteria was not considered probable during that time. The fair value for market-based restricted stock awards is determined using a lattice valuation model with a Monte Carlo simulation. Market-based restricted stock awards vest only upon achievement of certain market price thresholds of our common stock within a specified performance period, generally three years. Stock-based compensation expense for awards with market conditions is recognized over the derived service period for the awards using the straight-line method and is reduced for estimated forfeitures, as applicable, but is accelerated if the market condition is achieved earlier than estimated. The market conditions for outstanding market-based restricted stock awards had not been achieved as of December 31, 2012.

As stock-based compensation expense recognized in the consolidated statements of operations for the years ended December 31, 2012, 2011 and 2010 is based on awards ultimately expected to vest, it has been reduced for estimated forfeitures but at a minimum, reflects the grant-date fair value of those awards that actually vested in the period. Forfeitures have been estimated at the time of grant based on historical data and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

We recognize stock-based compensation expense on a straight-line basis over the requisite service period, which is generally the vesting period. The following table summarizes the stock-based compensation expense related to stock options, restricted stock awards and employee stock purchases for the years ended December 31, 2012, 2011 and 2010 which was allocated as follows:

	Year Ended December 31,		
	2012	2011	2010
	(In thousands)		
Research and development	$ 2,336	$ 5,799	$ 6,625
Restructuring charges	107	174	
General and administrative	2,868	9,276	7,093
Stock-based compensation expense included in operating expenses	$ 5,311	$ 15,249	$ 13,718

Modifications to outstanding options and restricted stock awards held by our former Chief Executive Officer and Chief Financial Officer and certain members of our Board of Directors resulted in additional stock-based compensation expense in 2011 which has been reflected in the above table. In addition, stock-based compensation expense has been recognized for the modification of the post-termination exercise period for certain stock options previously granted to employees affected by the November 2011 restructuring and the December 2012 restructuring, which has been included in

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

Restructuring Charges in our consolidated statements of operations. See Note 7 on Restructurings for further discussion of the restructurings.

The fair value of stock options granted in 2012, 2011 and 2010 has been estimated at the date of grant using the Black Scholes option-pricing model with the following assumptions:

	2012	2011	2010
Dividend yield	0%	0%	0%
Expected volatility range	0.631 to 0.740	0.629 to 0.660	0.625 to 0.635
Risk-free interest rate range	0.81% to 1.25%	0.88% to 2.37%	1.11% to 2.65%
Expected term	6 yrs	5 yrs	5 yrs

The fair value of employee stock purchases in 2012, 2011 and 2010 under the Purchase Plan has been estimated using the Black Scholes option-pricing model with the following assumptions:

	2012	2011	2010
Dividend yield	0%	0%	0%
Expected volatility range	0.458 to 0.774	0.278 to 0.584	0.468 to 0.995
Risk-free interest rate range	0.06% to 0.21%	0.10% to 0.32%	0.18% to 0.54%
Expected term range	6 mos to 12 mos	6 mos to 12 mos	6 mos to 12 mos

Dividend yield is based on historical cash dividend payments and Geron has paid no dividends to date. The expected volatility range is based on historical volatilities of our stock since traded options on Geron stock do not correspond to option terms and the trading volume of options is limited. The risk-free interest rate range is based on the U.S. Zero Coupon Treasury Strip Yields for the expected term in effect on the date of grant for an award. The expected term of options is derived from actual historical exercise and post-vesting cancellation data and represents the period of time that options granted are expected to be outstanding. The expected term of employees' purchase rights under the Purchase Plan is equal to the purchase period.

Based on the Black Scholes option-pricing model, the weighted average estimated fair value of employee stock options granted during the years ended December 31, 2012, 2011 and 2010 was $0.89, $2.06 and $2.87 per share, respectively. The weighted average estimated fair value of purchase rights under our Purchase Plan for the years ended December 31, 2012, 2011 and 2010 was $0.59, $1.20 and $1.92 per share, respectively. As of December 31, 2012, total compensation cost related to unvested share-based payment awards not yet recognized, net of estimated forfeitures and assuming no probability of achievement for outstanding performance-based restricted stock awards, was $8,344,000, which is expected to be recognized over the next 35 months on a weighted-average basis.

Stock-Based Compensation to Service Providers

We grant stock options and restricted stock awards to consultants from time to time in exchange for services performed for us. In general, the stock options and restricted stock awards vest over the contractual period of the consulting arrangement. We granted stock options to purchase 50,000 and 46,000 shares of our common stock to consultants in 2012 and 2011, respectively. No stock options were granted to consultants in 2010. In 2012, to facilitate the divestiture of our stem cell programs, we entered into consulting agreements with several former employees whose positions were eliminated in

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

connection with the restructuring in November 2011. Under the consulting agreements, the stock options and restricted stock awards previously granted to these individuals as employees continued to vest under the respective equity awards' original vesting schedules during the period the consulting services were provided to us. Accordingly, the stock options and restricted stock awards and related compensation expense were accounted for as consultant share-based payment awards during the respective consulting terms. The fair value of stock options and restricted stock awards held by consultants is recorded as operating expenses over the vesting term of the respective equity awards. In addition, we will record any increase in the fair value of the stock options and restricted stock awards as the respective equity award vests. We recorded stock-based compensation expense of $135,000, $114,000 and $463,000 for the vested portion of the fair value of stock options and restricted stock awards held by consultants in 2012, 2011 and 2010, respectively.

We have also issued common stock to consultants and vendors in exchange for services either performed or to be performed for us. For these stock issuances, we record a prepaid asset equal to the fair market value of the shares on the date of issuance and amortize the fair value of the shares to our operating expenses on a pro-rata basis as services are performed or goods are received. In 2012, 2011 and 2010, we issued 170,298, 180,954 and 1,994,993 shares of common stock, respectively, in exchange for goods or services. In 2012, 2011 and 2010, we recognized approximately $1,010,000, $4,736,000 and $11,235,000, respectively, of expense in connection with previous stock grants to consultants and vendors. As of December 31, 2012, $48,000 related to consultant and vendor stock issuances remained as a prepaid asset which is being amortized to our operating expenses on a pro-rata basis as services are incurred or goods are received.

Authorized Common Stock

On May 17, 2012, we filed a Certificate of Amendment to our Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to increase the number of authorized shares of our common stock from 200,000,000 shares to 300,000,000 shares. The foregoing amendment was approved by our stockholders at our 2012 annual meeting of stockholders held on May 17, 2012.

Common Stock Reserved for Future Issuance

Common stock reserved for future issuance as of December 31, 2012 is as follows:

Outstanding stock options	17,811,506
Options and awards available for grant	13,557,771
Employee stock purchase plan	356,390
Warrants outstanding	1,619,275
Total	33,344,942

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. STOCKHOLDERS' EQUITY (Continued)

401(k) Plan

We sponsor a defined-contribution savings plan under Section 401(k) of the Internal Revenue Code covering all full-time U.S. employees, or the Geron 401K Plan. Participating employees may contribute up to the annual Internal Revenue Service contribution limit. The Geron 401K Plan also permits us to provide discretionary matching and profit sharing contributions. The Geron 401K Plan is intended to qualify under Section 401 of the Internal Revenue Code so that contributions by employees or by us, and income earned on the contributions, are not taxable to employees until withdrawn from the Geron 401K Plan. Our contributions, if any, will be deductible by us when made.

In 2012, 2011 and 2010, our Board of Directors approved a matching contribution equal to 100% of each employee's 2012, 2011 and 2010 contributions, respectively. The matching contributions are invested in our common stock and vest ratably over four years for each year of service completed by the employee, commencing from the date of hire, until it is fully vested when the employee has completed four years of service. We provided the 2012 matching contribution at the beginning of 2013, following approval by our Board of Directors.

For the vested portion of the 2012 match, we recorded $616,000 as research and development expense and $259,000 as general and administrative expense. For the vested portion of the 2011 match, we recorded $1,179,000 as research and development expense and $288,000 as general and administrative expense. For the vested portion of the 2010 match, we recorded $1,051,000 as research and development expense and $243,000 as general and administrative expense. Due to the number of positions eliminated in the November 2011 restructuring, a partial plan termination was triggered in 2012. We accelerated the vesting of unvested prior employer matches for employees affected by the November 2011 restructuring, which resulted in $370,000 of operating expenses in 2012. As of December 31, 2012, approximately $539,000 remained unvested for the 2011, 2010 and 2009 matches which will be amortized to operating expenses as the corresponding years of service are completed by the employees.

Sales Agreement

On October 8, 2012, we entered into an At-the-Market Issuance Sales Agreement, or sales agreement, with MLV & Co. LLC, or MLV, pursuant to which we may elect to issue and sell shares of our common stock having an aggregate offering price of up to $50,000,000 from time to time into the open market at prevailing prices through MLV as our sales agent. We will pay MLV an aggregate commission rate equal to up to 3.0% of the gross proceeds of the sales price per share for common stock sold through MLV under the sales agreement. Pursuant to the sales agreement, sales of common stock will be made in such quantities and on such minimum price terms as we may set from time to time. We are not obligated to make any sales of common stock under the sales agreement. As of December 31, 2012, we had not sold any common stock pursuant to the sales agreement.

11. LICENSE AGREEMENTS

GE Healthcare UK Limited

In June 2009, we entered into a worldwide exclusive license and alliance agreement with GE Healthcare UK, Limited, or GEHC, to develop and commercialize cellular assay products derived from human embryonic stem cells, or hESCs, for use in drug discovery, development and toxicity screening.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. LICENSE AGREEMENTS (Continued)

Under the terms of the agreement, GEHC has been granted an exclusive license under Geron's intellectual property portfolio covering the growth and differentiation of hESCs, as well as a sublicense under Geron's rights to the hESC patents held by the Wisconsin Alumni Research Foundation. We established a multi-year alliance program with GEHC under which scientists from both companies worked to develop hESC-based products for drug discovery. The first product developed under the alliance, human cardiomyocytes derived from hESCs, was launched in October 2010 by GEHC.

In connection with the agreement, we received upfront non-refundable license payments under the exclusive license and sublicense and are eligible to receive milestone payments upon achievement of certain commercial development and product sales events and royalties on future product sales. Under the alliance program, GEHC was responsible for all costs incurred by GEHC and all costs incurred by us for activities undertaken at Geron, including the funding of our scientists who worked on the alliance program. An Alliance Steering Committee, with representatives from each company, coordinated and managed the alliance program.

License payments under the GEHC agreement were recorded as deferred revenue upon receipt and were recognized ratably as revenue over the alliance program period as a result of our continuing involvement with the collaboration. Funding received for our efforts under the alliance program was recognized as revenue as costs were incurred, which reflected our level of effort over the period of the alliance program. Since the milestone payments are subject to substantive contingencies, any such payments will be recognized upon completion of the specified milestones. Royalties received under the GEHC agreement will generally be recognized as revenue upon receipt of the related royalty payment. Upon the closing of the divestiture of our stem cell assets, the GEHC agreement, and any future revenue payments thereunder, will be transferred to BioTime Acquisition Corporation. For a further discussion of the divestiture of our stem cell assets, see Note 16 on Subsequent Event.

In connection with the GEHC agreement, we recognized $300,000 and $925,000 for the years ended December 31, 2011 and 2010, respectively, as revenues from collaborative agreements. No comparable amount was recognized in 2012 because the collaboration with GEHC concluded in June 2011. We also recognized $825,000, $350,000 and $1,100,000 as license fee revenue in our consolidated statements of operations for the years ended December 31, 2012, 2011 and 2010, respectively, under the GEHC agreement. License fee revenue in 2012 reflects the full recognition of a license payment from GEHC related to the exercise of an option to expand the scope of their original 2009 license agreement. Under the expanded license, GEHC obtained exclusive global rights to our intellectual property and know-how for the development and sale of cellular assays derived from induced pluripotent stem cells. Additionally, license fee revenue in 2010 included a milestone payment in connection with the first commercial sale of a product under the GEHC agreement.

Angiochem, Inc.

On December 6, 2010, we entered into an exclusive license agreement with Angiochem, Inc., or Angiochem, that provided 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 blood-brain barrier, or BBB, to enable the treatment of primary brain cancers and cancers that have metastasized to the brain. As consideration for the license rights, we paid Angiochem an upfront payment of $7,500,000 in cash and agreed to issue to Angiochem $27,500,000 of shares of Geron common stock on or about January 5, 2011.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. LICENSE AGREEMENTS (Continued)

We acquired the license rights for Angiochem's proprietary receptor-targeting peptide technology for the clinical development of GRN1005. Upon acquiring the license rights from Angiochem, we commenced development of two Phase 2 clinical trials of GRN1005 and because further clinical and process development of GRN1005 was required before any viable commercial application could be identified or utilized, we concluded that the technology had no alternative future use, and accordingly, expensed the total upfront payment of $35,000,000 as acquired in-process research and development at the time of acquisition in 2010.

On January 5, 2011, we issued 5,261,144 shares of common stock to Angiochem as payment of our obligation to issue $27,500,000 of shares of our common stock. In accordance with the exclusive license agreement, the number of shares issued to Angiochem was determined using the five-day volume weighted average closing price of our common stock immediately preceding the issuance date. Consistent with our practice for common stock issuances to consultants and vendors in exchange for services either performed or to be performed, we recorded $28,094,000 for the fair market value of the common stock issued to Angiochem, based on the closing price of our common stock on the issuance date. As a result, in 2011 we recognized additional acquired in-process research and development expense of approximately $594,000 for the excess fair market value resulting from the difference between the five-day volume weighted average closing price of our common stock immediately preceding the issuance date and the closing price of our common stock on January 5, 2011, which has been included in the consolidated statements of operations under research and development expense.

On December 3, 2012, we announced the decision to discontinue development of GRN1005 after a planned interim analysis of data from GRABM-B, our Phase 2 study of GRN1005 in patients with brain metastases arising from breast cancer, showed that there were no confirmed intra-cranial responses among the first 30 evaluable patients in the trial. In addition, we announced the discontinuation of GRABM-L, our Phase 2 study of GRN1005 in patients with brain metastases arising from non-small cell lung cancer, because of the inability to successfully enroll the trial. As a result of our determination to discontinue development of GRN1005, on December 3, 2012, we provided to Angiochem notice of termination of both the exclusive license agreement under which we received rights to GRN1005 and an associated research collaboration and option agreement. Under the terms of the license agreement, the effective date of the termination is June 1, 2013, but our obligations to complete the GRABM-B and GRABM-L trials may continue beyond that date.

Telomerase Activation Sciences, Inc.

On December 5, 2012, we entered into a Termination and Assignment Agreement, or the Assignment Agreement, with Asia Biotech Corporation, or Asia Biotech, and Telomerase Activation Sciences, Inc., or TA Sciences, pursuant to which we agreed to assign to TA Sciences the intellectual property, including patents previously licensed to Asia Biotech, related to our telomerase activation technology. As consideration for the assignment and fulfillment of the obligations set forth in the Assignment Agreement, we received a non-refundable, upfront payment of $2,500,000 from TA Sciences, which we recognized in full as other income in our consolidated statements of operations for the year ended December 31, 2012, and TA Sciences has no further payment obligations to us. In addition, Asia Biotech's future royalty obligations under the original license agreement have been terminated.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of our deferred tax assets are as follows:

	December 31,	
	2012	2011
	(In thousands)	
Net operating loss carryforwards	$ 248,700	$ 230,200
Purchased technology	20,000	22,200
Research credits	20,500	20,100
Capitalized research and development	19,400	19,000
License fees	1,100	1,300
Other net	14,000	16,700
Total deferred tax assets	323,700	309,500
Valuation allowance for deferred tax assets	(323,700)	(309,500)
Net deferred tax assets	$	$

We record net deferred tax assets to the extent we believe these assets will more likely than not be realized. In making such determination, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax planning strategies and recent financial performance. Forming a conclusion that a valuation allowance is not required is difficult when there is negative evidence such as cumulative losses in recent years. Because of our history of losses, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $14,200,000, $27,300,000 and $42,800,000 during the years ended December 31, 2012, 2011 and 2010, respectively. Approximately $5,500,000 of the valuation allowance for deferred tax assets relates to benefits of stock option deductions which, when recognized, will be allocated directly to contributed capital.

As of December 31, 2012, we had domestic federal net operating loss carryforwards of approximately $672,000,000 expiring at various dates beginning in 2018 through 2032, and state net operating loss carryforwards of approximately $346,100,000 expiring at various dates beginning in 2013 through 2032, if not utilized. We also had federal research and development tax credit carryforwards of approximately $12,400,000 expiring at various dates beginning in 2018 through 2031, if not utilized. Our state research and development tax credit carryforwards of approximately $12,100,000 carry forward indefinitely.

Due to the change of ownership provisions of the Tax Reform Act of 1986, utilization of a portion of our domestic net operating loss and tax credit carryforwards may be limited in future periods. Further, a portion of the carryforwards may expire before being applied to reduce future income tax liabilities.

We adopted the provision of the standard for accounting for uncertainties in income taxes on January 1, 2007. Upon adoption, we recognized no material adjustment in the liability for unrecognized tax benefits. At December 31, 2012, we had approximately $10,500,000 of unrecognized tax benefits, none of which would currently affect our effective tax rate if recognized due to our deferred tax assets being fully offset by a valuation allowance.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. INCOME TAXES (Continued)

A reconciliation of the beginning and ending amounts of unrecognized tax benefits is as follows (in thousands):

Balance as of December 31, 2011	$ 10,200
Decrease related to prior year tax positions	(100)
Increase related to current year tax positions	400
Settlements	
Reductions due to lapse of applicable statute of limitations	
Balance as of December 31, 2012	$ 10,500

If applicable, we would classify interest and penalties related to uncertain tax positions in income tax expense. Through December 31, 2012, there has been no interest expense or penalties related to unrecognized tax benefits.

We do not currently expect any significant changes to unrecognized tax benefits during the fiscal year ended December 31, 2013. In certain cases, our uncertain tax positions are related to tax years that remain subject to examination by the relevant tax authorities. Tax years for which we have carryforward net operating loss and credit attributes remain subject to examination by federal and most state tax authorities.

13. SEGMENT INFORMATION

Our executive management team represents our chief decision maker. We view our operations as one segment, the discovery and development of therapeutic and diagnostic products for oncology. As a result, the financial information disclosed herein materially represents all of the financial information related to our principal operating segment.

14. CONSOLIDATED STATEMENTS OF CASH FLOWS DATA

	Year Ended December 31,		
	2012	2011	2010
	(In thousands)		
Supplemental operating activities:			
Cash in transit	$	$	$ 2
Issuance of common stock for services rendered to date or to be received in future periods	$ 69	$ 41	$ 3,098
Issuance of common stock for acquired in-process research and development	$	$ 27,500	$
Issuance of common stock for 401(k) matching contributions and year-end bonuses	$ 1,361	$ 3,778	$ 972
Reclassification between deposits and other current assets	$ 526	$ (180)	$ 131
Supplemental investing activities:			
Net unrealized (loss) gain on available-for-sale securities	$ (38)	$ 6	$ 306

Cash paid for interest for the year ended December 31, 2011 was $37,000. No comparable amounts were paid for the years ended December 31, 2012 and 2010. There were no cash payments for taxes for the years ended December 31, 2012, 2011 and 2010.

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. SELECTED QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(In thousands, except per share amounts)			
Year Ended December 31, 2012				
Revenues	$ 1,254	$ 130	$ 636	$ 689
Operating expenses[1]	20,172	18,609	16,513	19,173
Net loss	(18,739)	(18,326)	(15,953)	(15,863)
Basic and diluted net loss per share	$ (0.15)	$ (0.14)	$ (0.13)	$ (0.12)
Year Ended December 31, 2011				
Revenues	$ 1,505	$ 462	$ 220	$ 251
Operating expenses[2]	25,861	21,878	20,156	30,659
Net loss	(24,389)	(21,088)	(19,522)	(31,854)
Basic and diluted net loss per share	$ (0.20)	$ (0.17)	$ (0.16)	$ (0.25)

(1) The fourth quarter of 2012 includes approximately $2,702,000 in restructuring charges in connection with the decision to discontinue development of GRN1005 and focus on the development of imetelstat. See Note 7 on Restructurings.

(2) The fourth quarter of 2011 includes approximately $5,449,000 in restructuring charges in connection with the decision to focus on the development of our oncology programs and discontinue further development of our stem cell programs. See Note 7 on Restructurings.

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

16. SUBSEQUENT EVENT

In January 2013, we entered into an Asset Contribution Agreement, or the Agreement, with BioTime, Inc., or BioTime, and BioTime's recently formed subsidiary, BioTime Acquisition Corporation, or BAC, providing for the divestiture of all of our human embryonic stem cell assets and our autologous cellular immunotherapy program to BAC upon the closing of the transaction. The transaction, which is expected to close no later than September 30, 2013, is subject to negotiated closing conditions, including certain approvals by BioTime's shareholders, the effectiveness of certain registration statements to be filed by BioTime and BAC with the United States Securities and Exchange Commission, or the SEC, with respect to the securities to be distributed as contemplated by the Agreement, and other customary closing conditions.

Under the terms of the Agreement, upon closing of the transaction, we will contribute to BAC our intellectual property, cell lines and other assets related to our discontinued human embryonic stem cell programs, including our Phase 1 clinical trial of oligodendrocyte progenitor cells, or GRNOPC1, in patients with acute spinal cord injury, as well as our autologous cellular immunotherapy program, including data from the Phase 2 clinical trial of the autologous immunotherapy in patients with acute myelogenous leukemia. Upon the closing of the transaction, we will receive 6,537,779 shares of BAC Series A Common Stock and BioTime will contribute to BAC $5,000,000 in cash, 8,902,077 shares of BioTime common stock to be held by BAC, five-year warrants to purchase 8,000,000 shares of BioTime common stock at an exercise price of $5.00 per share, or the BioTime Warrants, rights to use certain

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GERON CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. SUBSEQUENT EVENT (Continued)

human embryonic stem cell lines and minority stakes in two of BioTime's subsidiaries. Upon the closing of the transaction, BioTime will receive 21,773,340 shares of BAC Series B Common Stock and three-year warrants to purchase 3,150,000 shares of BAC Series B Common Stock at an exercise price of $5.00 per share, or the BAC Warrants. Under the Agreement, BAC will also pay royalties to us on the sale of products that are commercialized, if any, in reliance upon our patents acquired by BAC.

Following the closing of the transaction, we will distribute the BAC Series A Common Stock received from BAC to our stockholders on a pro rata basis (other than with respect to fractional shares and stockholders in certain to-be-determined excluded jurisdictions, which will instead receive cash on a pro rata basis). Following the distribution by us to our stockholders of the BAC Series A Common Stock, BAC will then distribute the BioTime Warrants on a pro rata basis to the holders of BAC Series A Common Stock. Following these distributions, it is anticipated that Geron stockholders would own approximately 21% of BAC, BioTime would own approximately 72%, and a private investor would own approximately 7% after an additional $5,000,000 investment by them in BAC. The BAC Warrants will enable BioTime to increase its ownership in BAC by approximately 2%, which would dilute our stockholders' ownership in BAC to approximately 19%.

Prior to the closing, we are subject to certain obligations, including the obligation to exercise reasonable best efforts to preserve intact and maintain the assets to be contributed by us to BAC upon the closing of the transaction, including our intellectual property rights and patents in-licensed from third parties. If we are unable to preserve intact and maintain the assets to be contributed by us to BAC, or if BioTime or BAC are unable to satisfy their obligations with respect to the transaction contemplated by the Agreement, including the obligation to obtain the effectiveness of certain registration statements to be filed by them with the SEC, we may be unable to fully complete the transaction with BioTime and BAC.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

(I) Evaluation of Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures. We maintain disclosure controls and procedures to ensure that information we are required to disclose in reports that we file or submit under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Exchange Act. Based on that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective, at a reasonable assurance level, as of December 31, 2012 and as of the date of this filing.

Changes in Internal Control over Financial Reporting. There was no change in our internal control over financial reporting for the quarter ended December 31, 2012 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

It should be noted that any system of controls, however well designed and operated, can provide only reasonable assurance, and not absolute assurance, that the objectives of the system are met. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events. Because of these and other inherent limitations of control systems, there can be no assurance that any design will succeed in achieving its stated goals in all future circumstances. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the objectives of our disclosure control system are met and, as set forth above, our Chief Executive Officer and Chief Financial Officer have concluded, based on their evaluation as of the end of the period covered by this report, that our disclosure controls and procedures were effective to provide reasonable assurance that the objectives of our disclosure control system were met.

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(II) Management's Report on Internal Control over Financial Reporting

Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

(1) Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company;

(2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and

(3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Management is responsible for establishing and maintaining an adequate internal control over financial reporting for the Company. Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in "Internal Control Integrated Framework" issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework set forth in "Internal Control Integrated Framework," our management concluded that our internal control over financial reporting was effective as of December 31, 2012. The effectiveness of our internal control over financial reporting as of December 31, 2012 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.

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(III) Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Geron Corporation

We have audited Geron Corporation's internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Geron Corporation's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Geron Corporation maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Geron Corporation as of December 31, 2012 and 2011, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2012 of Geron Corporation and our report dated March 15, 2013 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Redwood City, California
March 15, 2013

ITEM 9B. OTHER INFORMATION

None.

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PART III

Certain information required by Part III is omitted from this Annual Report on Form 10-K because the registrant will file with the U.S. Securities and Exchange Commission a definitive proxy statement pursuant to Regulation 14A in connection with the solicitation of proxies for Geron's Annual Meeting of Stockholders expected to be held in May 2013, or the Proxy Statement, not later than 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K, and certain information included therein is incorporated herein by reference.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Identification of Directors and Nominees for Director

The information required by this item concerning our directors and nominees for director is incorporated by reference from the section captioned "Proposal 1: Election of Directors" contained in our Proxy Statement.

Identification of Executive Officers

The information required by this item concerning our executive officers is set forth in Part I, Item 1 of this Annual Report on Form 10-K.

Code of Ethics

We have adopted a Code of Conduct with which every person who works for Geron is expected to comply. The Code of Conduct is publicly available on our website under the Investor Relations section at www.geron.com. This website address is intended to be an inactive, textual reference only; none of the material on this website is part of this Report. If any substantive amendments are made to the Code of Conduct or any waiver granted, including any implicit waiver, from a provision of the Code to our Chief Executive Officer, Chief Financial Officer or Corporate Controller, we will disclose the nature of such amendment or waiver on that website or in a report on Form 8-K.

Copies of the Code of Conduct will be furnished without charge to any person who submits a written request directed to the attention of our Corporate Secretary, at our offices located at 149 Commonwealth Drive, Suite 2070, Menlo Park, California, 94025.

Section 16(a) Compliance

Information concerning Section 16(a) beneficial ownership reporting compliance is incorporated by reference from the section captioned "Section 16(a) Beneficial Ownership Reporting Compliance" contained in the Proxy Statement.

Certain Corporate Governance Matters

The information required by this item concerning our audit committee, audit committee financial expert and procedures by which stockholders may recommend nominees to our Board of Directors, may be found under the section captioned "Corporate Governance Matters" contained in the Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this item is incorporated by reference from the sections captioned "Compensation Discussion and Analysis," "Compensation Committee Report," "Executive Compensation Tables," "Director Compensation" and "Compensation Committee Interlocks and Insider Participation" contained in the Proxy Statement.

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ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this item is incorporated by reference from the sections captioned "Equity Compensation Plans" and "Security Ownership of Certain Beneficial Owners and Management" contained in the Proxy Statement.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this item is incorporated by reference from the sections captioned "Proposal 1: Election of Directors" and "Certain Transactions" contained in the Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is incorporated by reference from the section captioned "Principal Accountant Fees and Services" contained in the Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a)

(1) Consolidated Financial Statements

Included in Part II, Item 8 of this Report:

(2)

Financial Statement Schedules

Financial statement schedules are omitted because they are not required or the information is disclosed in the financial statements listed in Item 15(a)(1) above.

(3)

Exhibits

See Exhibit Index.

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SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

GERON CORPORATION

Date: March 15, 2013 By: /s/ OLIVIA K. BLOOM

OLIVIA K. BLOOM
Senior Vice President, Chief Financial Officer and Treasurer

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POWER OF ATTORNEY

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

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

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

Signature	Title	Date
/s/ JOHN A. SCARLETT JOHN A. SCARLETT	*President, Chief Executive Officer and Director (Principal Executive Officer)*	March 15, 2013
/s/ OLIVIA K. BLOOM OLIVIA K. BLOOM	*Senior Vice President, Chief Financial Officer and Treasurer (Principal Financial and Accounting Officer)*	March 15, 2013
/s/ DANIEL M. BRADBURY DANIEL M. BRADBURY	*Director*	March 15, 2013
/s/ KARIN EASTHAM KARIN EASTHAM	*Director*	March 15, 2013
/s/ EDWARD V. FRITZKY EDWARD V. FRITZKY	*Director*	March 15, 2013
/s/ THOMAS HOFSTAETTER THOMAS HOFSTAETTER	*Director*	March 15, 2013
/s/ HOYOUNG HUH HOYOUNG HUH	*Director*	March 15, 2013
/s/ THOMAS D. KILEY	*Director*	March 15, 2013

THOMAS D. KILEY /s/ V. BRYAN LAWLIS	*Director*	March 15, 2013
V. BRYAN LAWLIS /s/ SUSAN M. MOLINEAUX	*Director*	March 15, 2013
SUSAN M. MOLINEAUX /s/ ROBERT J. SPIEGEL	*Director*	March 15, 2013
ROBERT J. SPIEGEL		

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EXHIBIT INDEX

Exhibit Number	Description	Incorporation by Reference			
		Exhibit Number	Filing	Filing Date	File No.
2.1	Asset Contribution Agreement by and among Geron Corporation, BioTime, Inc. and BioTime Acquisition Corporation	2.1	8-K	January 8, 2013	000-20859
3.1	Restated Certificate of Incorporation	3.3	8-K	May 18, 2012	000-20859
3.2	Certificate of Amendment of the Restated Certificate of Incorporation	3.1	8-K	May 18, 2012	000-20859
3.3	Amended and Restated Bylaws of Registrant	3.1	8-K	March 19, 2010	000-20859
4.1	Form of Common Stock Certificate				
4.2	Form of Common Stock Purchase Warrant issued by the Registrant to certain Purchasers, dated September 9, 2009	4.2	8-K	September 10, 2009	000-20859
10.1	Form of Indemnification Agreement	10.1	10-K	March 7, 2012	000-20859
10.2	1992 Stock Option Plan, as amended*	Appendix A	Def 14A	April 9, 2001	000-20859
10.3	Amended and Restated 1996 Employee Stock Purchase Plan*	10.2	10-Q	July 31, 2009	000-20859
10.4	1996 Directors' Stock Option Plan, as amended*	Appendix B	Def 14A	April 15, 2003	000-20859
10.5	Amended and Restated 2002 Equity Incentive Plan*	4.1	S-8	June 4, 2010	333-167349
10.6	Form of Stock Option Agreement under 2002 Equity Incentive Plan				
10.7	Form of Restricted Stock Award Agreement under 2002 Equity Incentive Plan				
10.8	Form of Performance-Based Restricted Stock Award Agreement under 2002 Equity Incentive Plan				
10.9	Amended and Restated 2006 Directors' Stock Option Plan*	10.9	10-Q	May 7, 2012	000-20859
10.10	2011 Incentive Award Plan*	10.1	8-K	May 16, 2011	000-20859
10.11	Form of Stock Option Agreement under 2011 Incentive Award Plan				
10.12	Form of Restricted Stock Award Agreement under 2011 Incentive Award Plan				

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Exhibit Number	Description	Incorporation by Reference			
		Exhibit Number	Filing	Filing Date	File No.
10.13	Form of Performance-Based Restricted Stock Award Agreement under 2011 Incentive Award Plan				
10.14	Exclusive License Agreement between the Registrant and Angiochem, Inc., effective as of December 6, 2010	10.22	10-K	February 25, 2011	000-20859
10.15	Stock Purchase Agreement between the Registrant and Angiochem, Inc., effective as of January 5, 2011	10.1	8-K	January 7, 2011	000-20859
10.16	First Amendment to Exclusive License Agreement by and between Geron Corporation and Angiochem, Inc., effective as of February 22, 2011				
10.17	Second Amendment to Exclusive License Agreement by and between Geron Corporation and Angiochem, Inc., effective as of July 9, 2012	10.1	8-K	July 18, 2012	000-20859
10.18	California Institute for Regenerative Medicine Notice of Loan Award	10.1	10-Q	November 3, 2011	000-20859
10.19	Employment agreement between the Registrant and John A. Scarlett, M.D., effective as of September 29, 2011*	10.2	10-Q	November 3, 2011	000-20859
10.20	Employment agreement between the Registrant and Graham Cooper, effective as of January 1, 2012*	10.27	10-K	March 7, 2012	000-20859
10.21	Transition and Separation Agreement between the Registrant and David L. Greenwood, effective as of February 7, 2012*	10.29	10-K	March 7, 2012	000-20859
10.22	Employment agreement between the Registrant and Stephen N. Rosenfield, effective as of February 16, 2012*	10.32	10-K	March 7, 2012	000-20859
10.23	Transition and Separation Agreement between the Registrant and David J. Earp, effective as of April 10, 2012*	10.8	10-Q	May 7, 2012	000-20859
10.24	Employment agreement between the Registrant and Andrew J. Grethlein, effective as of September 17, 2012*	10.2	10-Q	November 2, 2012	000-20859

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Exhibit Number	Description	Incorporation by Reference			
		Exhibit Number	Filing	Filing Date	File No.
10.25	Employment agreement between the Registrant and Craig C. Parker, effective as of December 3, 2012*				
10.26	Employment agreement between the Registrant and Olivia K. Bloom, effective as of December 7, 2012*				
10.27	Transition and Separation Agreement between the Registrant and Graham K. Cooper, effective as of December 13, 2012*				
10.28	Employment agreement between the Registrant and Melissa A. Kelly Behrs, effective as of January 31, 2013*				
10.29	Employment agreement between the Registrant and Stephen M. Kelsey, effective as of January 31, 2013*				
10.30	Amended and Restated Severance Plan, effective as of February 13, 2013*				
10.31	Business Park Lease effective as of January 20, 1993 between the Registrant and David D. Bohannon Organization and Amendment Nos. 1, 2 and 3 thereto effective as of July 26, 1993, February 22, 1994 and March 25, 1996, respectively	10.13	S-1	June 12, 1996	333-05853
10.32	Sixth Amendment to Lease by and between Geron Corporation and David D. Bohannon Organization, effective as of June 4, 2012	10.1	8-K	June 8, 2012	000-20859
10.33	Office Lease Agreement by and between the Registrant and Exponent Realty, LLC, effective as of February 29, 2012	10.36	10-K/A	March 27, 2012	000-20859
10.34	At-the-Market Issuance Sales Agreement, dated October 8, 2012, by and between the Registrant and MLV & Co. LLC	10.1	8-K	October 9, 2012	000-20859
12.1	Computation of Ratio of Earnings to Fixed Charges				
23.1	Consent of Independent Registered Public Accounting Firm				

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Exhibit Number	Description	Exhibit Number	Incorporation by Reference Filing	Filing Date	File No.
24.1	Power of Attorney (see signature page)				
31.1	Certification of Chief Executive Officer pursuant to Form of Rule 13a-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated March 15, 2013				
31.2	Certification of Chief Financial Officer pursuant to Form of Rule 13a-14(a), as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated March 15, 2013				
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated March 15, 2013**				
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated March 15, 2013**				
101	The following materials from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2012, formatted in Extensible Business Reporting Language (XBRL) include: (i) Consolidated Balance Sheets as of December 31, 2012 and 2011, (ii) Consolidated Statements of Operations, Comprehensive Loss, Stockholders' Equity and Cash Flows for each of the three years in the period ended December 31, 2012, and (iii) Notes to Consolidated Financial Statements.***				

Confidential treatment has been granted for certain portions of this exhibit. Omitted information has been filed separately with the Securities and Exchange Commission.

*

Management contract or compensation plan or arrangement.

**

The certifications attached as Exhibits 32.1 and 32.2 that accompany this Annual Report on Form 10-K, are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of this Form 10-K), irrespective of any general incorporation language contained in such filing.

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Pursuant to applicable securities laws and regulations, the Registrant is deemed to have complied with the reporting obligation relating to the submission of interactive data files in such exhibits and is not subject to liability under any anti-fraud provisions of the federal securities laws as long as the Registrant has made a good faith attempt to comply with the submission requirements and promptly amends the interactive data files after becoming aware that the interactive data files fail to comply with the submission requirements. These interactive data files are deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, as amended, are deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, as amended, and otherwise are not subject to liability under these sections.