Geron Presents Interim Clinical Data On Its Telomerase Inhibitor Drug Trial In Patients With Multiple Myeloma

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First Clinical Evidence of Telomerase Inhibition Observed in Both Bulk and Cancer Stem Cell-Containing Fractions of Patients' Bone Marrow

MENLO PARK, Calif., December 8, 2008 - Geron Corporation (Nasdaq: GERN) today announced the presentation of interim data at the 2008 meeting of the American Society of Hematology in San Francisco, CA, for its ongoing clinical trial of GRN163L, a telomerase inhibitor drug, in patients with relapsed and refractory multiple myeloma.

This study of GRN163L as a single agent is one of six ongoing clinical trials recruiting from 18 U.S. medical centers examining the safety, tolerability, pharmacokinetics and pharmacodynamics of the drug, alone or in combination, in solid tumors, chronic lymphoproliferative disease, multiple myeloma, lung and breast cancers.

Phase I Study of GRN163L in Patients with Relapsed and Refractory Multiple Myeloma

An interim analysis of an ongoing Phase I study of GRN163L in patients with relapsed and refractory multiple myeloma was presented by Geron scientists and collaborating principal investigators from the Roswell Park Cancer Institute, the Dana Farber Cancer Institute, the Boston VA Cancer Healthcare System, the H. Lee Moffitt Cancer Center, and Johns Hopkins University. Data were presented on 13 patients, each of whom received at least one infusion of GRN163L with a range of 1-19 doses, from 3.2 mg/kg to 7.2 mg/kg. Patients had received up to eight prior systemic treatment regimens for multiple myeloma, with a median of four prior regimens, including four patients who had received autologous bone marrow transplantation.

Pharmacodynamic Results

Results were presented from two patients who had samples of pre- and post-treatment bone marrow collected. Both bulk and tumor stem cell-containing fractions were assessed for telomerase inhibition. Both patients received multiple infusions of GRN163L at 4.8 mg/kg and had achieved relatively high plasma levels of the drug. Telomerase activity in the bulk tumor fraction of bone marrow from those two patients decreased by 78% and 48%, respectively, after GRN163L treatment. Telomerase activity in the myeloma stem cell-containing fraction of their bone marrow declined by 33% and 63%, respectively.

Significance

"These preliminary results suggest that pharmacodynamic effects in myeloma patients' tumor-containing bone marrow are evident at a GRN163L dose of 4.8 mg/kg, a well tolerated dose in these patients," said Thomas B. Okarma, Ph.D., M.D., Geron's president and chief executive officer. "Moreover, consistent with prior in vitro results, GRN163L appears to inhibit telomerase in both the bulk myeloma fraction as well as the myeloma stem cell-containing fraction in patients' bone marrow. GRN163L is unique in its inhibitory effects on myeloma stem cells, and this activity may be an important component of its mechanism of potential anti-tumor activity. These data are the first evidence in man of telomerase inhibition by a telomerase targeting drug and will help us optimize dosing schedules to enable sustained telomerase inhibition that hopefully will translate into clinical activity."

Safety Results

GRN163L was generally well tolerated. Some patients had laboratory evidence of transient, infusion-related changes in factors related to complement activation without clinical consequence, and all patients had some degree of dose-related, transient, aPTT prolongation that returned to baseline within 24 hours. At 7.2 mg/kg, two patients experienced a dose limiting toxicity of aPTT prolongation unaccompanied by clinical sequelae, and one patient experienced a dose limiting toxicity of thrombocytopenia. The most notable toxicity in this study was thrombocytopenia, with five patients exhibiting grade 3 or 4 thrombocytopenia, two of whom had exhibited grade 1 thrombocytopenia at baseline. The maximum tolerated dose for continuous weekly dosing of GRN163L was below 7.2 mg/kg. Clinical responses have not been seen in this heavily pre-treated, refractory population to date, and patients continue to accrue at a dosing level of 6.0 mg/kg.

About Multiple Myeloma

Multiple myeloma is a malignancy of plasma cells, which are antibody-producing cells of the immune system. Multiple myeloma usually arises in the bone marrow and is characterized by interference with the production of blood cells, destructive lesions of bone that can cause debilitating fractures, and excessive production of antibody molecules. These abnormal molecules may interfere with the function of many tissues and organs in addition to bone marrow, including the kidneys. Multiple myeloma is the second most common hematological malignancy of adults.

The American Cancer Society has projected that 19,900 new cases and 10,790 deaths due to multiple myeloma will have occurred in the United States by the end of this year. Although the number of treatment options for multiple myeloma has increased in recent years, the vast majority of multiple myeloma patients progress or recur after initial therapy and ultimately die from the disease.

About Telomerase and GRN163L

Telomerase is a critical and potentially broadly applicable tumor target. The enzyme is expressed in a wide range of malignant tumors, and its activity is essential for the indefinite replicative capacity of cancer cells that enables their malignant cell growth. Telomerase is absent or expressed only transiently at low levels in most normal adult tissues.

GRN163L is a short chain oligonucleotide that binds with high affinity and specificity to the catalytic site of telomerase, resulting in competitive inhibition of enzyme activity. Proprietary manufacturing chemistry and the addition of a 5' lipid chain have enabled the molecule to penetrate cells and tissues throughout the body.

GRN163L has demonstrated anti-tumor effects in a wide range of preclinical hematological and solid tumor models, including multiple myeloma.

Preclinical studies have also demonstrated that GRN163L can inhibit clonogenic growth of both primary myeloma patient samples and subpopulations from myeloma cell lines enriched for cancer stem cells. These subpopulations show resistance to several conventional agents, including bortezomib. Cancer stem cells capable of clonogenic growth may play an important role in rapid regrowth of tumors after initial reduction by standard treatments.

About Geron

Geron is a biopharmaceutical company that is developing first-in-class therapeutic products for the treatment of cancer and chronic degenerative diseases, including spinal cord injury, heart failure and diabetes. The products are based on our core expertise in telomerase and human embryonic stem cells. For more information, visit www.geron.com.

This news release may contain forward-looking statements made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Investors are cautioned that statements in this press release regarding potential applications of Geron's telomerase technology constitute forward-looking statements that involve risks and uncertainties, including, without limitation, risks inherent in the development and commercialization of potential products, uncertainty of clinical trial results or regulatory approvals or clearances, need for future capital, dependence upon collaborators and maintenance of our intellectual property rights. Actual results may differ materially from the results anticipated in these forward-looking statements. Additional information on potential factors that could affect our results and other risks and uncertainties are detailed from time to time in Geron's periodic reports, including the quarterly report on Form 10-Q for the quarter ended September 30, 2008.

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