



## **GERON INITIATES PHASE 2 TRIAL OF GRN1005 IN BRAIN METASTASES FROM BREAST CANCER**

**MENLO PARK, Calif., December 12, 2011** – Geron Corporation (Nasdaq: GERN) today announced the initiation of GRABM-B (**GRN1005 Against Brain Metastases – Breast cancer**), a Phase 2 clinical trial to evaluate GRN1005 in patients with brain metastases arising from breast cancer. GRN1005 is the company's lead LRP-directed peptide-drug conjugate (LRP-directed PDC) that consists of the cytotoxic drug, paclitaxel, linked to a peptide (Angiopep-2) that targets the LRP receptor to cross the blood-brain barrier (BBB) and to target tumors in the brain.

"There is a need for effective drugs for patients with cancer metastases in the brain," said Stephen M. Kelsey, M.D., Geron's Executive Vice President, Head of R&D and Chief Medical Officer. "We have been encouraged by the preliminary evidence of anti-tumor activity against brain metastases observed in the Phase 1 clinical trial of GRN1005, and we hope to confirm these results in the GRABM-B Phase 2 study in patients with brain metastases from breast cancer."

### *Phase 2 Clinical Trial Design (GRABM-B)*

The purpose of the Phase 2 study is to assess the efficacy, safety and tolerability of GRN1005 in patients with brain metastases from breast cancer. The trial is designed to include 100 patients with HER2 positive or HER2 negative metastatic breast cancer (MBC) disease, who will be assessed in two separate cohorts of 50 patients each. Approximately half of the patients in each cohort will have received prior Whole Brain Radiation Therapy. GRN1005 will be evaluated as a single agent in patients with HER2 negative metastatic breast cancer. For patients with HER2 positive disease, GRN1005 will be assessed in combination with trastuzumab (Herceptin®), which is the standard-of-care therapy for HER2 positive extra-cranial MBC disease.

GRN1005 will be administered at a dose of 650 mg/m<sup>2</sup> by intravenous (IV) infusion every three weeks. The primary efficacy endpoint for the trial is intra-cranial response rate. Important secondary endpoints include duration of intra-cranial response, three month intra-cranial progression-free survival and six month overall survival.

### *Rationale for the Study*

Cancer in the brain, particularly metastases, currently represents a significant unmet medical need, because drugs that might be effective against these tumor types are not able to efficiently cross the blood-brain barrier and enter the tumor. Preclinical and Phase 1 data indicate that GRN1005 transports paclitaxel into tumors inside the brain through LRP1-mediated transport. GRN1005 also has activity against tumors outside the brain.

Data on safety and tolerability, and preliminary evidence of anti-tumor activity of GRN1005 were documented in two separate Phase 1 multi-center, open-label, dose escalation clinical trials, conducted by Angiochem, Inc., in patients with heavily pre-treated progressing, advanced-stage solid tumors and brain metastases (n=56; including breast cancer) and in patients with recurrent or progressive malignant glioma (n=63). Final data were presented at the 2011 AACR-NCI-EORTC International Conference on Molecular Targets and Cancer Therapeutics in November.

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In patients with brain metastases from solid tumors, overall response rate was 20% (4/20) by one dimensional assessment when treated with a dose of 650 mg/m<sup>2</sup> of GRN1005 administered as single-agent therapy once every three weeks. The anti-tumor activity was observed against metastases inside the brain as well as in organs outside of the brain, such as the liver, lung and lymph nodes. Among the patients who responded to treatment with GRN1005, were patients who had previously progressed on taxane therapy.

Geron's clinical development plan for GRN1005 includes two Phase 2 clinical trials in patients with brain metastases arising from either breast cancer (GRABM-B) or non-small cell lung cancer (GRABM-L). Top-line data from both studies are expected to be available by the end of the second quarter of 2013.

For more information about the GRABM-B Phase 2 trial, please visit <http://clinicaltrials.gov/ct2/show/NCT01480583>.

### **About Brain Metastases and Breast Cancer**

There are nearly 200,000 new cases per year in the United States of cancers arising in other organs that metastasize to the brain. Breast cancer is the primary tumor type in 15-20% of patients with brain metastases and is second only in incidence to brain metastases from lung cancer. There are currently no drugs approved for brain metastases, which represent a major unmet medical need.

Drugs are unable to reach the brain because of the blood-brain barrier (BBB). Cytotoxic drugs such as paclitaxel that are effective against breast cancer cannot reach the brain at clinically therapeutic levels, which is why tumors in the brain, such as cancer metastases, are very difficult to treat. Transport across the BBB and into tumors is critical for developing effective treatments for cancers in the brain.

### **About GRN1005**

GRN1005 (previously known as ANG1005) is an LRP-directed peptide-drug conjugate (LRP-directed PDC) being developed for the treatment of cancers in the brain. GRN1005 is designed to deliver cytotoxic drug across the BBB and into tumors by exploiting a native mechanism by which essential substances, such as lipids and hormones, are actively transported into the brain through receptors. GRN1005 is comprised of three molecules of paclitaxel linked to a proprietary 19 amino acid peptide (Angiopep-2) that is designed to target the lipoprotein receptor-related protein 1 (LRP1), one of the most highly expressed receptors on the surface of the BBB. Binding to LRP1 facilitates receptor-mediated transport, or transcytosis, across the BBB into the brain tissue. LRP1 is also up-regulated in many tumors, therefore once in the brain, GRN1005 may gain entry into tumor cells using the same receptor by a process known as endocytosis. GRN1005 is a prodrug, which becomes activated in cells after it is cleaved by esterases to release active paclitaxel from the peptide.

### **About Geron**

Geron is developing first-in-class therapies for the treatment of cancer. The company is advancing a telomerase inhibitor, and a peptide-drug conjugate to penetrate the blood-brain

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barrier through multiple Phase 2 clinical trials in different indications. For more information about the company, visit [www.geron.com](http://www.geron.com).

### **Forward Looking Statements**

Except for the historical information contained herein, this press release contains 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: Geron's plans or expectations for or of: dates to begin or obtain top-line data from the Phase 2 oncology clinical trials of GRN1005; clinical success of GRN1005; and the anti-tumor or paclitaxel-like activity of GRN1005, constitute forward-looking statements. These statements involve risks and uncertainties that can cause actual results to differ materially from those in such forward-looking statements. These risks and uncertainties, include, without limitation: (a) regarding dates for Phase 2 clinical trial initiation or for the availability of top-line data - delays in enrollment, delays caused by institutional review boards or regulatory agencies, shortage of supply, dependence on clinical trial collaborators, or safety issues; (b) regarding the activity of GRN1005 - those risks and uncertainties inherent in the development of potential therapeutic products, including without limitation, successful clinical trial results. Additional information and factors that could cause actual results to differ materially from those in the forward-looking statements are contained in Geron's periodic reports filed with the Securities and Exchange Commission under the heading "Risk Factors," including the Annual Report on Form 10-K for the year ended December 31, 2010 and quarterly report on Form 10-Q for the quarter ended September 30, 2011. Undue reliance should not be placed on forward-looking statements, which speak only as of the date they are made, and the facts and assumptions underlying the forward-looking statements may change. Except as required by law, Geron disclaims any obligation to update these forward-looking statements to reflect future information, events or circumstances.

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