Geron to Proceed with First Human Clinical Trial of Embryonic Stem Cell-Based Therapy

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Geron to Study GRNOPC1 in Patients with Acute Spinal Cord Injury

MENLO PARK, Calif., July 30, 2010 - Geron Corporation (Nasdaq: GERN) announced today that the U.S. Food and Drug Administration (FDA) has notified the company that the clinical hold placed on Geron's Investigational New Drug (IND) application has been lifted and the company's Phase I clinical trial of GRNOPC1 in patients with acute spinal cord injury may proceed.

The FDA notification enables Geron to move forward with the world's first clinical trial of a human embryonic stem cell (hESC)-based therapy in man. The Phase I multi-center trial is designed to establish the safety of GRNOPC1 in patients with "complete" American Spinal Injury Association (ASIA) Impairment Scale grade A subacute thoracic spinal cord injuries.

"We are pleased with the FDA's decision to allow our planned clinical trial of GRNOPC1 in spinal cord injury to proceed," said Thomas B. Okarma, Ph.D., M.D., Geron's president and CEO. "Our goals for the application of GRNOPC1 in subacute spinal cord injury are unchanged - to achieve restoration of spinal cord function by the injection of hESC-derived oligodendrocyte progenitor cells directly into the lesion site of the patient's injured spinal cord. Additionally, we are now formally exploring the utility of GRNOPC1 in other degenerative CNS disorders including Alzheimer's, multiple sclerosis and Canavan disease."

The clinical hold was placed following results from a single preclinical animal study in which Geron observed a higher frequency of small cysts within the injury site in the spinal cord of animals injected with GRNOPC1 than had previously been noted in numerous foregoing studies. In response to those results, Geron developed new markers and assays as additional release specifications for GRNOPC1. The company completed an additional confirmatory preclinical animal study to test the new markers and assays, and subsequently submitted a request to the FDA for the clinical hold to be lifted.

GRNOPC1, Geron's lead hESC-based therapeutic candidate, contains hESC-derived oligodendrocyte progenitor cells that have demonstrated remyelinating and nerve growth stimulating properties leading to restoration of function in animal models of acute spinal cord injury (*Journal of Neuroscience*, Vol. 25, 2005).

"The neurosurgical community is ready to begin the clinical testing of this new approach to treating devastating spinal cord injury," said Richard Fessler, M.D., Ph.D., professor of neurological surgery at the Feinberg School of Medicine at Northwestern University. "We know that demyelination is central to the pathology of the injury, and its reversal by means of injecting oligodendrocyte progenitor cells would be revolutionary for the field. If found to be safe and effective, the therapy would provide a viable treatment option for thousands of patients who suffer severe spinal cord injuries each year."

The GRNOPC1 Clinical Program

Patients eligible for the Phase I trial must have documented evidence of functionally complete spinal cord injury with a neurological level of T3 to T10 spinal segments and agree to have GRNOPC1 injected into the lesion sites between seven and 14 days after injury.

Although the primary endpoint of the trial is safety, the protocol includes secondary endpoints to assess efficacy, such as improved neuromuscular control or sensation in the trunk or lower extremities. Once safety in this patient population has been established, Geron plans to seek FDA approval to extend the study to increase the dose of GRNOPC1, enroll subjects with complete cervical injuries and expand the trial to include patients with severe incomplete (ASIA Impairment Scale grade B or C) injuries to enable access to the therapy for as broad a population of severe spinal cord-injured patients as is medically appropriate.

Geron has selected up to seven U.S. medical centers as candidates to participate in this study and in planned protocol extensions. The sites will be identified as they come online and are ready to enroll subjects into the study.

Other Potential Neurological Indications for GRNOPC1

In addition to spinal cord injury, GRNOPC1 may have therapeutic utility for other central nervous system indications. Geron has established a number of collaborations with academic groups to test GRNOPC1 in selected animal models of human disease for which there is a strong rationale for the approach.

Alzheimer's Disease: Alzheimer's disease is a progressive, fatal, degenerative disorder that attacks the neurons in the brain, resulting in loss of memory, cognitive function such as reasoning and language, and behavioral changes. According to the Alzheimer's Association an estimated five million people in the United States have Alzheimer's disease. GRNOPC1 is being evaluated in animal models of Alzheimer's disease in collaboration with Professor Frank M. LaFerla, Director of the Institute for Memory Impairments and Neurological Disorders (UCI MIND) at the University of California, Irvine.

Multiple Sclerosis (MS): MS is an autoimmune disease that causes demyelination of nerve axons in the brain and spinal cord often progressing to physical and cognitive disability. There is currently no known cure for the disease. According to the National Multiple Sclerosis Society there are about 400,000 people in the United States with MS. GRNOPC1 is being tested in a non-human primate model of MS in collaboration with Professor Jeffery D. Kocsis of the Departments of Neurology and Neurobiology at Yale University School of Medicine and the Department of Veterans Affairs.

Canavan Disease: Canavan disease is a fatal neurological disorder that belongs to a group of genetic disorders called leukodystrophies, characterized by the abnormal development or degeneration of myelin. Symptoms of Canavan disease present in the first six months of life and death usually occurs at 3 - 10 years of age. GRNOPC1 is being tested in a rodent model of Canavan disease in collaboration with Dr. Paola Leone, Director of the Cell and Gene Therapy Center, at the University of Medicine and Dentistry of New Jersey.

Background on GRNOPC1

Additional information on Geron's hESC programs and GRNOPC1 is available at Geron's website www.geron.com.

About Geron

Geron is developing first-in-class biopharmaceuticals for the treatment of cancer and chronic degenerative diseases, including spinal cord injury, heart failure and diabetes. The company is advancing an anti-cancer drug and a cancer vaccine that target the enzyme telomerase through multiple clinical trials in different cancers. For more information about Geron, 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 human embryonic stem cell 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 protection 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 annual report on Form 10-Q for the quarter ended March 31, 2010.

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