

GERON COLLABORATORS PUBLISH DATA ON HESC-DERIVED GLIAL PROGENITOR CELL THERAPY IN CERVICAL SPINAL CORD INJURY

*Data Provide Preclinical Proof-of-Concept to Support Clinical
Development of GRNOPC1 in Patients with Cervical Spinal Cord Injuries*



MENLO PARK, Calif., November 11, 2009 – Geron Corporation (Nasdaq: GERN) today announced the publication of data showing that oligodendrocyte progenitor cells (OPCs) derived from human embryonic stem cells (hESCs), when transplanted into a rodent model of cervical spinal cord injury, reduced tissue damage within the lesion and improved recovery of locomotor function. These data provide preclinical proof-of-concept for the use of GRNOPC1, Geron's hESC-derived oligodendrocyte progenitor product, in patients with cervical spinal cord injuries. Over half of the 11,000 human spinal cord injuries that are sustained in the U.S. annually are in the cervical region.

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The study was authored by Geron collaborator Dr. Hans S. Keirstead and colleagues at the Reeve-Irvine Research Center and the Sue & Bill Gross Stem Cell Research Center at the University of California at Irvine. The paper was published online in advance of print in the journal *Stem Cells*. The abstract of the publication is available at <http://www3.interscience.wiley.com/journal/122666108/abstract>.

Oligodendrocytes have two main functions in the spinal cord; they produce the myelin that wraps around nerve fibers to enable electrical impulse conduction and they produce other molecules (neurotrophic factors) that help to maintain nerve cells. In spinal cord injury oligodendrocytes are lost, resulting in the loss of myelin and death of nerve cells that can cause paralysis below the injury. The present study, conducted in a cervical model of spinal cord injury, adds to previous work in a thoracic model, which has demonstrated that injection of hESC-derived OPCs into the site of injury improved locomotor function with evidence of remyelination of nerve fibers.

The cervical injury model used in this study induced widespread tissue loss resulting in a cavity in the spinal cord. In contrast, there was no cavity in the spinal cord of the rodents that had been injected with hESC-derived OPCs seven days after injury, and the transplant area contained human oligodendrocytes. Further analysis of the injury sites revealed there were significantly more normally myelinated neurons, fewer demyelinated neurons, and importantly, a greater number of preserved motor neurons compared to controls. These data provide *in vivo* evidence that hESC-derived OPCs may protect the spinal cord from tissue damage induced by injury in addition to having a remyelinating function. Along with these observations was noted a decrease in genes associated with tissue damage and inflammation suggestive of a mechanism in which hESC-OPCs are exerting their tissue-sparing effect.

Critically, the preservation of motor neurons within the spinal cord was shown to correlate with functional recovery. In the cervical injury model forelimb function was compromised. The animals that had received hESC-OPCs showed significantly greater improvement in forelimb stride length and range of motion compared to untreated controls.

"We are excited by Dr. Keirstead's study in the cervical injury model," said Thomas B. Okarma, Ph.D., M.D., Geron's president and chief executive officer. "These preclinical studies demonstrate that transplantation of hESC-derived

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Page Two / Geron Collaborators Publish Data on hESC-Derived Glial Progenitor Cell Therapy in Cervical Spinal Cord Injury

OPCs resulted in sparing of spinal cord tissue in the cervical lesion site. This sparing starts very soon after injection and importantly, results in the preservation of motor neurons which is correlated to recovery of forelimb movement. Our own IND-enabling safety and efficacy studies with GRNOPC1 in a cervical injury model are ongoing and will be submitted to the FDA upon completion.”



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, 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 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, 2009.

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