



Journal of Neuroimmunology Publishes Study Results Showing that Geron's Human Embryonic Stem Cell-Based Therapeutic for Spinal Cord Injury Evades Direct Attack by the Human Immune System

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MENLO PARK, Calif., Nov. 13, 2007 – Geron Corporation (Nasdaq: GERN) today announced the publication of study results showing that GRNOPC1, the company's human embryonic stem cell (hESC)-based therapeutic for the treatment of spinal cord injury, evades direct attack by the human immune system in vitro.

Published in the November online issue of the *Journal of Neuroimmunology*, the results of research conducted by Ross Okamura, Ph.D. and other Geron scientists suggest that unlike whole organ transplants, cellular therapeutics derived from hESCs may provoke only minimal immune reactions and that rejection may be controlled or prevented by short courses of low-dose immunosuppressive drugs. The results also support the position that patient-specific hESC lines are not needed to prevent immune rejection.

Specifically, the research findings demonstrate that GRNOPC1 cells are minimally recognized by both the innate (natural killer) and adaptive (cytotoxic T cell) arms of the human immune system. In addition, the data show that the cells are resistant to lysis by human serum containing anti-Neu5Gc antibodies, which some scientists believed was problematic for any hESC line derived on mouse feeders. Geron's oligodendroglial progenitors express HLA class I antigen but not class II markers, even after stimulation by inflammatory cytokines. Analysis of factors secreted by these cells in the presence of inflammatory cytokines show the induction of several ligands, including B7-H1, which have been previously shown to enhance successful engraftment across allogeneic barriers.

"We published evidence in 2004 showing that undifferentiated hESCs are immunoprivileged, which means they are minimally recognized by allogeneic human immune cells in vitro," said Thomas B. Okarma, Ph.D., M.D., Geron's president and CEO. "This publication shows that the same immune-privileged properties are displayed by differentiated progeny of hESCs. In this case, they are oligodendroglial progenitors for acute spinal cord injury. More importantly, the study results suggest a possible reduction in the requirement for immunosuppressive drugs in patients treated with OPC1 cells. This should minimize the potential for side effects often attributed to these agents."

In the studies, GRNOPC1 cells were tested for susceptibility to both immune effector cells and sera from multiple allogeneic normal healthy individuals. GRNOPC1 cells stimulated very low levels of T cell proliferation. Allogeneic T cell proliferation is a standard measure of immune recognition of foreign transplanted tissue. Even when GRNOPC1 cells were exposed to proinflammatory cytokines, such as beta-interferon or TNF-alpha, allogeneic T cell proliferation was not induced.

In addition, GRNOPC1 cells were not lysed by natural killer cells, the "innate" arm of the immune system. Finally, GRNOPC1 cells were largely resistant to killing by antibodies present in the sera of normal healthy individuals. Sera from eight of 10 individuals failed to induce the killing of GRNOPC1 cells. The sera from the remaining two individuals induced only 10% GRNOPC1 cell lysis.

GRNOPC1 is an allogeneic population of cells containing oligodendroglial progenitors that is intended for transplantation into the lesion site of patients with spinal cord injury to induce tissue repair. Geron's development plan for the product calls for the filing of an Investigational New Drug (IND) Application with the U.S. Food and Drug Administration and, pending the agency's review, initiation of human clinical trials in 2008.

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. Geron is also the world leader in the development of human embryonic stem cell-based therapeutics, with its spinal cord injury treatment anticipated to be the first product to enter clinical development. 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, 2007.

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