

Neuralstem Announces Publication of NSI-566 Data in a Rodent Model of Traumatic Brain Injury

-NSI-566 Achieved Robust Engraftment and Long-Term Survival After Transplantation-

- Data Published in Journal of Neurotrauma-

GERMANTOWN, Md., March 09, 2017 (GLOBE NEWSWIRE) -- Neuralstem, Inc. (Nasdaq:CUR), a biopharmaceutical company focused on the development of nervous system therapies based on its neural stem cell technology, announced the recent publication of preclinical data on NSI-566 spinal cord-derived neural stem cells in Journal of Neurotrauma. These data showed robust engraftment and long-term survival of NSI-566 post transplantation in a rat model of penetrating ballistic-like brain injury (PBBI). NSI-566 is Neuralstem's lead stem cell therapy candidate.

The study entitled, "Amelioration of penetrating ballistic-like brain injury induced cognitive deficits after neuronal differentiation of transplanted human neural stem cells," was led by Ross Bullock, M.D., Ph.D., The Miami Project to Cure Paralysis, University of Miami School of Medicine. These are the first data from the 4-year proof-of-concept research program, funded by the United States Department of Defense, for NSI-566 in traumatic brain injury.

"These data on NSI-566 are encouraging, particularly since researchers have long been challenged to achieve durable engraftment and survival of neural stem cells after transplantation," said Dr. Bullock. "No long-term treatment beyond physical therapy is currently available to restore cognition after a traumatic brain injury. Transplantation of stem cells into the injured brain may allow a unique replacement therapy and fill a significant medical need."

Researchers transplanted NSI-566 into rats 7-10 days after PBBI. The rats were immunosuppressed to enable survival of NSI-566 neural stem cells. Robust engraftment with evidence of prominent neuronal differentiation was observed after 4 months, and axons from grafted cells extended a significant distance from the graft site along host white matter tracts.

"These data continue to support our research and development platform. The results provide additional insight into our proprietary regionally specific stem cells and their potential benefits in nervous system disorders," said Karl Johe, Ph.D., Chief Scientific Officer, Neuralstem. "We look forward to additional preclinical data from this collaboration with Dr. Bullock's group to support the potential use of NSI-566 in traumatic brain injury."

About Neuralstem

Neuralstem's patented technology enables the commercial-scale production of multiple types of central nervous system stem cells, which are being developed as potential therapies for multiple central nervous system diseases and conditions.

Neuralstem's technology enables the discovery of small molecule compounds by systematic screening chemical compounds against its proprietary human hippocampal stem cell line. The screening process has led to the discovery and patenting of molecules that Neuralstem believes may stimulate the brain's capacity to generate new neurons, potentially reversing pathophysiologies associated with certain central nervous system (CNS) conditions.

The company has completed Phase 1a and 1b trials evaluating NSI-189, a novel neurogenic small molecule product candidate, for the treatment of major depressive disorder or MDD, and is currently conducting a Phase 2 efficacy study for MDD.

Neuralstem's stem cell therapy product candidate, NSI-566, is a spinal cord-derived neural stem cell line. Neuralstem is currently evaluating NSI-566 in three indications: stroke, chronic spinal cord injury (cSCI), and Amyotrophic Lateral Sclerosis (ALS).

Neuralstem is conducting a Phase 1 safety study for the treatment of paralysis from chronic motor stroke at the BaYi Brain Hospital in Beijing, China. In addition, NSI-566 was evaluated in a Phase 1 safety study to treat paralysis due to chronic spinal cord injury as well as a Phase 1 and Phase 2a risk escalation, safety trials for ALS. Subjects from all three indications are currently in long-term observational follow-up periods to continue to monitor safety and possible therapeutic benefits.

Cautionary Statement Regarding Forward Looking Information

This news release contains "forward-looking statements" made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Such forwardlooking statements relate to future, not past, events and may often be identified by words such as "expect," "anticipate," "intend," "plan," "believe," "seek" or "will." Forward-looking statements by their nature address matters that are, to different degrees, uncertain. Specific risks and uncertainties that could cause our actual results to differ materially from those expressed in our forward-looking statements include 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 Neuralstem's periodic reports, including the Annual Report on Form 10-K for the year ended December 31, 2015, and Form 10-Q for the nine months ended September 30, 2016, filed with the Securities and Exchange Commission (SEC), and in other reports filed with the SEC. We do not assume any obligation to update any forward-looking statements.

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