BrainStorm Announces Publication of NurOwn® Autism Research Study

Preclinical Findings Show Potential for Human Benefit

HACKENSACK, N.J. and PETACH TIKVAH, Israel, April 19, 2017 /PRNewswire/ -- BrainStorm Cell Therapeutics Inc. (NASDAQ: BCLI), a leading developer of adult stem cell technologies for neurodegenerative diseases, announced today that a preclinical study evaluating the use of NurOwn® mesenchymal stem cells in a mouse model of autism was published in the April issue of the journal *Behavioural Brain Research* [Perets N. et al. Epub ahead of print, PMID: 28392323]. The publication, entitled "Long Term Beneficial Effect of Neurotrophic Factors-Secreting Mesenchymal Stem Cells Transplantation in the BTBR Mouse Model of Autism, was authored by Prof. Daniel Offen, Head of Tel Aviv University's Translational Neuroscience Laboratory, Sackler School of Medicine, and Brainstorm's Chief Scientific Advisor.

The publication reported that transplantation of mesenchymal stem cells (MSC) induced to secrete neurotrophic factors (MSC-NTF cells, NurOwn®) in the BTBR mouse model of autism demonstrated significant long-term improvements in autistic behavior in the BTBR mice compared to MSC treated and to untreated BTBR mice.

A single NurOwn® dose improved social behavior communication skills, and cognitive flexibility, an improvement that was not observed with MSC treatment, and reduced stereotypic repetitive behaviors in the BTBR mice six months post transplantation, a reduction that was only observed for a shorter period (one month) following MSC transplantation.

The authors concluded that NurOwn® treatment markedly reduced autistic behavior in BTBR mice for an extended period after a single cell transplantation, and that NurOwn® is superior to MSC treatment, as demonstrated in its beneficial effect on communication skills and stereotypic behavior. They noted that this was the first study to show an improvement across all autistic like behavioral phenotypes that can be measured in mice and the first to demonstrate a long-lasting effect of a single treatment for six months.

"These findings are especially encouraging because of the lack of effective medical treatments available for autism and the enormous impact this condition has on patients and their families," said Ralph Z. Kern, M.D., Chief Medical Officer of BrainStorm. "We believe that these results represent a strong rationale for pursuing clinical development of NurOwn® as a potential treatment for autism, which we hope to explore further this year."

About Autism

According to the Autism Society, autism spectrum disorder (ASD) is a complex developmental disability; signs typically appear during early childhood and affect a person's ability to communicate and interact with others. ASD is defined by a certain set of behaviors and is a "spectrum condition" that affects individuals differently and to varying degrees. There is no known single cause of autism, but increased awareness and early diagnosis/intervention and access to appropriate services/supports lead to significantly improved outcomes. Some of the behaviors associated with autism include delayed learning of language; difficulty making eye contact or holding a conversation; difficulty with executive functioning, which relates to reasoning and planning; narrow, intense interests; poor motor skills' and sensory sensitivities. In March 2014, the Centers for Disease Control and Prevention issued their ADDM autism prevalence report which concluded that the prevalence of autism had risen to 1 in every 68 births in the United States – nearly twice as great as the 2004 rate of 1 in 125 – and almost 1 in 54 boys.

About BrainStorm Cell Therapeutics Inc.

BrainStorm Cell Therapeutics Inc. is a biotechnology company engaged in the development of first-of-its-kind adult mesenchymal stem cell therapies derived from autologous bone marrow cells for the treatment of neurodegenerative diseases. The Company holds the rights to develop and commercialize its NurOwn® technology through an exclusive, worldwide licensing agreement with Ramot, the technology transfer company of Tel Aviv University. NurOwn® has been administered to approximately 75 patients with ALS in clinical trials conducted in the United States and Israel. In a randomized, double-blind, placebo-controlled clinical trial conducted in the U. S., a clinically meaningful benefit was demonstrated by higher response to NurOwn compared with placebo. For more information, visit the company's website at www.brainstorm-cell.com.

Safe-Harbor Statement

Statements in this announcement other than historical data and information constitute "forward-looking statements" and involve risks and uncertainties that could cause BrainStorm Cell Therapeutics Inc.'s actual results to differ materially from those stated or implied by such forward-looking statements. Terms and phrases such as "may", "should", "would", "could", "will", "expect", "likely", "believe", "plan", "estimate", "predict", "potential", and similar terms and phrases are intended to identify these forward-looking statements. The potential risks and uncertainties include, without limitation, risks associated with BrainStorm's limited operating history, history of losses; minimal working capital, dependence on its license to Ramot's technology; ability to adequately protect the technology; dependence on key executives and on its scientific consultants; ability to obtain required

regulatory approvals; and other factors detailed in BrainStorm's annual report on Form 10-K and quarterly reports on Form 10-Q available at http://www.sec.gov. These factors should be considered carefully, and readers should not place undue reliance on BrainStorm's forward-looking statements. The forward-looking statements contained in this press release are based on the beliefs, expectations and opinions of management as of the date of this press release. We do not assume any obligation to update forward-looking statements to reflect actual results or assumptions if circumstances or management's beliefs, expectations or opinions should change, unless otherwise required by law. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

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