



BRAINCELLS INC. ANNOUNCES RESULTS FROM EXPLORATORY PHASE 2A TRIAL OF BCI-540 IN DEPRESSION WITH ANXIETY

Positive Signal Observed in Difficult-to-Treat Patient Population

SAN DIEGO, Calif., June 14, 2010 – BrainCells Inc., a company leading the scientific research of neurogenesis using its proprietary neural stem cell platform technology to identify novel compounds for the treatment of central nervous system (CNS) diseases, announced today findings from an exploratory, dose ranging Phase 2a clinical trial not powered for statistical significance. The trial evaluated BCI-540 for the treatment of patients with major depressive disorder (MDD) with anxiety who had previously failed an average of two antidepressants. While there was no difference between the overall treatment group and placebo on scales for depression and anxiety, further analysis showed a positive efficacy signal in a subset of patients with MDD and general anxiety disorder (GAD), which warrants further study.

“Co-morbid depression and anxiety remains a significant unmet need, representing approximately 40 percent of depressed patients. BCI-540 elicited a stronger response in this group of patients, providing us direction for additional studies to better understand its therapeutic potential,” said Allan Young, MB, ChB, Ph.D., FRCPsych, FRCPC, director of the Institute of Mental Health at the University of British Columbia and lead investigator of the trial. “I look forward to its next step in development.”

The six-week trial was randomized, double-blind and placebo-controlled to determine whether 80 milligrams of BCI-540 dosed orally once or three times daily (TID) improves symptoms in patients with MDD and anxiety who had previously failed an average of two antidepressants. The trial measured change from baseline at week two, four and six for 101 evaluable patients with a variety of commonly used patient and physician-rated scales including the Hamilton Rating Scales for Anxiety (HAM-A) and Depression (HAM-D).

At week six, in the overall population there was no benefit of BCI-540 on HAM-A or HAM-D compared to placebo. However, in patients who were dosed TID, 36% responded compared to 19% in the placebo group. Within this group, depression symptoms of those with co-morbid GAD improved by 12.2 points on HAM-D compared to 5.5 points in the placebo group ($p < 0.008$). BCI-540 was well tolerated, with a side effect profile similar to placebo.

“Neurogenesis is an exciting new field that is demonstrating potential in many different CNS diseases including depression and anxiety,” said Carrolee Barlow, M.D., Ph.D., chief scientific and medical officer at BrainCells. “BCI-540 began to separate from placebo by four weeks, which is in line with our understanding of how neurogenesis progresses in the brain. It is an important clinical finding that we’ll take forward as we investigate the therapeutic opportunity of BCI-540 in this difficult-to-treat population.”

BCI-540 is a bifunctional molecule that works to treat mood disorders through two mechanisms of action, AMPA potentiation and choline uptake enhancement. BrainCells identified through its platform the compound’s ability to help new neurons differentiate and survive, two important aspects of the neurogenesis process. Experiments conducted by BrainCells confirmed appropriate changes in behavioral models for depression, without affecting serotonin levels,

potentially eliminating side effects typically associated with selective serotonin reuptake inhibitors (SSRIs) like Prozac. Currently, only 30 to 40 percent of people with depression fully respond to current treatments.

About BrainCells Inc.

BrainCells Inc. is a drug discovery and development company leading the scientific research of neurogenesis by applying its proprietary human neural stem cell platform technology to identify novel pathways for new therapeutics to treat various central nervous system (CNS) diseases. Neurogenesis is the process by which stem cells in the adult human brain produce new brain tissue, including neurons. With its predictive screening platform, BrainCells can direct the selection and development of neurogenic compounds, increasing the opportunity for successful clinical trials in a variety of indications. For more information, visit <http://www.braincellsinc.com>.