



UNLIKELY TREATMENT IDENTIFIED BY BRAINCELLS NEUROGENESIS PLATFORM IMPROVED CLINICAL OUTCOMES IN PATIENTS SUFFERING FROM DEPRESSION

Study results of BCI-952 validate promising new approach to treating mood disorders

SAN DIEGO, JULY 27, 2009 – BrainCells Inc., a company leading the scientific research of neurogenesis using its proprietary platform technology to identify novel pathways for the treatment of central nervous system (CNS) diseases, announced today results from the first clinical proof-of-concept study of BCI-952, a combination of low dose buspirone and melatonin, for the treatment of major depressive disorder (MDD). The data were presented at NCDEU 2009, a meeting co-sponsored by the National Institute of Mental Health and the American Society of Clinical Psychopharmacology. Neurogenesis is the process by which pre-existing stem cells in the hippocampus of the adult brain produce new brain cells, including neurons.

“Our study results provide the first prospective clinical validation of neurogenesis as a target for the treatment of mood disorders like depression, in contrast to the traditional focus on affecting serotonin function for antidepressant drug development,” said lead investigator Maurizio Fava, M.D., vice chair department of psychiatry at Massachusetts General Hospital and professor of psychiatry at Harvard Medical School. “Researchers have speculated that the brain’s ability to grow new brain cells may have an impact on depression, and we now know that we can stimulate the natural process of neurogenesis with a positive clinical impact on depression symptoms.”

“BCI-952 was selected by our proprietary platform for the compound’s neurogenic properties,” said Jim Schoeneck, chief executive officer of BrainCells Inc. “The platform was able to identify the pathway, ratio of drug and dosing that shaped the clinical trial protocol, directing the first rational approach to drug development in the area of psychiatry.”

The double blind, placebo-controlled, randomized study evaluated the efficacy of BCI-952 for the treatment of MDD in 142 patients over a six-week period. Patients were randomized into one of three arms, BCI-952 (n=67), buspirone (n=34) or placebo (n=33). Co-primary endpoints were the Clinical Global Impression-Improvement (CGI-I) and the Quick Inventory of Depressive Symptomatology (QIDS SR -16). Secondary endpoints included the CGI-S, IDSC30 and HAMA. The data presented at the NCDEU meeting focused on the MITT population using both the LOCF and MMRM analyses for the co-primary endpoints.

The CGI-I at week six demonstrated improvement relative to placebo using the MITT LOCF, MITT MMRM. The mean CGI-I scores were statistically significant relative to placebo using the MITT MMRM (p=0.046). The responders analysis for CGI-I (SCORE <=2) demonstrated a higher response rate (58%) for BCI-952 as compared to buspirone alone (38%) (p=0.063) and placebo (36%) (p=0.055).

The QIDS SR16 demonstrated numerical improvement as compared to placebo; however these improvements were not statistically significant.

BCI 952 also demonstrated improvements on the secondary endpoints of the IDSC30, HAMA and CGI-S. These improvements were statistically significant for IDSC30 (p=0.034) and HAMA (p=0.041).

Results of this study in patients with MDD showed that BCI-952 demonstrated improvements in multiple endpoints of depression. In addition, BCI-952 was well tolerated with a safety profile similar to placebo.

About BrainCells Inc.

BrainCells Inc. (BCI) is a drug discovery and development company leading the scientific research of neurogenesis by applying its robust and proprietary platform technology to identify novel pathways for small molecule therapeutics to treat various central nervous system (CNS) diseases. Neurogenesis is the process by which endogenous stem cells in the adult human brain produce new brain tissue, including neurons. With its predictive screening platform, BCI 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>.