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**FOR IMMEDIATE RELEASE**

**New Data Show No Negative Long-Term Effect in Cognitive Function in Patients with Major Depressive Disorder Treated with NeuroStar TMS Therapy®**

– Results Presented at American Academy of Neurology Meeting in Hawaii –

**HONOLULU, Hawaii – April 14, 2011** – In an open-label study of patients with major depressive disorder (MDD) who had not benefitted from prior antidepressant medication and were treated with Neuronetics' NeuroStar Transcranial Magnetic Stimulation (TMS) Therapy, no negative effects in cognitive function were observed following six-month follow-up. The study, conducted in 120 MDD patients, compared the long-term effect of acute treatment with NeuroStar TMS on patients' cognitive function to the cognitive function of patients given acute sham treatment. The findings were presented on Thursday, April 14, 2011 at the American Academy of Neurology meeting in Honolulu, Hawaii.

"Depression often causes cognitive disturbances in patients. Antidepressant medications can have, as a side effect, an impact that can further worsen patients' cognition," said Scott Aaronson, M.D., director of Medical Research Services at Sheppard and Enoch Pratt Hospital in Maryland. "TMS provides an effective treatment option for depression without harm to cognition."

Results of the six-month follow-up study comparing patients who had received NeuroStar TMS Therapy or sham treatment showed no deterioration on any measure of cognition. In addition, there was no negative effect on cognition in patients who received reintroduction of acute NeuroStar TMS during the six-month period.

"We are pleased with these new results on long-term cognitive function. These data support the growing body of evidence that NeuroStar TMS is a safe option for patients with major depressive disorder," said Mark A. Demitrack, chief medical officer for Neuronetics. "Neuronetics is committed to continuing our research to find lasting non-pharmaceutical treatments to address this potentially debilitating disease."

**About the Study**

Specific measures of global cognition (Mini Mental Status Examination), short-term (Buschke Selective Reminding Test) and long-term (Autobiographical Memory Interview-Short Form) memory were obtained at 24-week follow up from patients with

MDD who received acute TMS treatment (N = 99) compared to patients with MDD who were given acute sham treatment (N = 21). These patients had participated in a randomized, controlled study of four to six weeks of acute NeuroStar TMS Therapy (N=155) as compared to sham treatment (N=146)<sup>1</sup>. In that study, no cognitive effects were reported after acute NeuroStar TMS Therapy.<sup>2</sup>

### **About NeuroStar TMS Therapy**

Neuronetics' NeuroStar TMS Therapy system was cleared by the U.S. Food and Drug Administration (FDA) in October 2008 for the treatment of adult patients with Major Depressive Disorder who have failed to achieve satisfactory improvement from one prior antidepressant medication at or above the minimal effective dose and duration in the current episode. NeuroStar TMS Therapy is a non-systemic (does not circulate in the bloodstream throughout the body) and non-invasive (does not involve surgery) form of neuromodulation. It stimulates nerve cells in an area of the brain that has been linked to depression by delivering highly focused MRI-strength magnetic field pulses. The treatment is typically administered daily for four to six weeks.

In clinical trials, patients treated with active NeuroStar TMS Therapy experienced an average reduction in their depression symptom score of 22.1 percent compared to a nine percent reduction in patients receiving inactive treatment. In an open-label clinical trial, which is most like real world clinical practice, approximately one in two patients experienced significant improvement in symptoms, and one in three experienced complete symptom resolution<sup>3</sup>. There were no systemic side effects such as those experienced with some antidepressant medications. The most common adverse event related to treatment was scalp pain or discomfort at the treatment area during active treatment. There is a rare risk of seizure with TMS Therapy (0.1 percent of patients under general clinical use).

NeuroStar TMS Therapy is contraindicated in patients with non-removable metallic objects in or around the head. It is not indicated or effective for all patients with depression and it is available only upon the prescription of a psychiatrist. For full safety and prescribing information, visit [www.NeuroStar.com](http://www.NeuroStar.com).

### **Availability of NeuroStar TMS Therapy**

Treatment with NeuroStar TMS Therapy is available at more than 270 treatment centers in 38 states. For information on specific treatment locations that offer NeuroStar TMS Therapy, please visit [www.NeuroStar.com](http://www.NeuroStar.com) or call Neuronetics Customer Service Center at (877) 600-7555.

### **About Major Depressive Disorder**

Major depression is a serious medical illness affecting more than 14 million American adults every year. Of those suffering from depression, 6.8 million do not even seek treatment<sup>4</sup>. Often a debilitating disorder, depression results in a persistent state of sadness that interferes with an individual's thoughts, behavior, mood, and physical health. It is important to recognize the symptoms and seek treatment as soon as possible.

## **About Neuronetics**

Neuronetics, Inc. is a privately-held medical device company focused on developing non-invasive therapies for psychiatric and neurological disorders using MRI-strength magnetic field pulses. Based in Malvern, Penn., Neuronetics is the leader in the development of TMS Therapy, a non-invasive form of neuromodulation. Neuronetics was created as a spinout of The Innovation Factory, a medical device incubator in Duluth, Ga. For more information, please visit [www.neuronetics.com](http://www.neuronetics.com).

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3. Demitrack MA, Thase ME, *Psychopharmacology Bulletin* 2009; 42(2):5-38.
4. Kessler, RC, et al. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, 2005 Jun; 62 (6):617-27.