NDI Launches Deep Brain Innovations, LLC

*Optimizing electrical stimulation to treat Parkinson’s disease and other neurological conditions.*

Cleveland, OH and Durham, NC (PRWEB) May 23, 2013 -- NDI Medical, LLC, a venture and commercialization firm that funds and develops innovative neurodevice technologies, has launched its next portfolio company, Deep Brain Innovations, LLC (DBI). DBI will commercialize its groundbreaking technology that is designed to optimize deep brain stimulation (DBS) therapy for patients with Parkinson’s disease. Currently available DBS therapy is effective in treating Parkinson’s disease and generates more than $275 million in annual sales. However, NDI has validated an opportunity to further expand this market with a revolutionary approach to DBS.

DBI's proprietary Temporally Optimized Patterned Stimulation (TOPSTM) technology is based on the seminal research of Dr. Warren Grill, the Addy Professor of Biomedical Engineering at Duke University. "After more than a decade of research we've discovered a way to ‘speak’ to the area of the brain that controls movement in persons with Parkinson’s disease. The stimulation patterns, somewhat akin to Morse code for the brain, were designed to be much more efficient than conventional DBS” said Grill. “This is vital because the gains we make in improved efficiency increase the longevity of implanted brain stimulation devices, thus reducing health care costs, risks, and complications associated with frequent battery replacement for persons with DBS Systems."

Dr. Grill, Chief Scientific Officer, and Geoff Thrope, President and veteran neurodevice entrepreneur, founded DBI on the basis of NDI’s model, which is to invest in and develop technologies in large markets where there is at least one validated product, but where critical needs still exist. Thrope and Grill previously sold their proprietary MEDSTIM system for the treatment of urinary incontinence to Medtronic, Inc. for $42 million, which followed this same successful model.

There have been more than 80,000 DBS surgeries completed since 1997, using conventional DBS technology that target specific areas of the brain to reduce the symptoms of Parkinson's disease. Parkinson’s disease currently affects more than 6.3 million people, with 60,000 new cases diagnosed annually in the U.S.

Dr. Grill's lab in Duke's Pratt School of Engineering combined unique computer models and engineering methods to design novel patterns of stimulation to be much more energy efficient than the conventional DBS systems currently used to treat Parkinson’s disease. DBI’s innovative TOPSTM technology has been evaluated in a series of clinical studies with neurosurgical advisors and DBS thought leaders at Duke University Medical Center, Emory University, and Wake Forest Baptist Medical Center in patients undergoing replacement of their implanted device following battery depletion. Perhaps as exciting is the prospect of using DBI’s TOPSTM technology to enhance the effectiveness of the therapeutic treatment and expand it to other indications.

"We will be seeking strategic partners to integrate our TOPSTM technology into their devices to develop what we expect will be the smallest and longest lasting DBS systems available." said Thrope. "In addition to treating
Parkinson’s disease, we can also adapt our technology to other disease states being investigated for treatment with DBS such as Alzheimer's disease, depression, epilepsy, obsessive-compulsive disorder, and obesity."

About DBI
Deep Brain Innovations™ (DBI) is a medical device company that has developed a proprietary method to optimize DBS therapy through novel patterns of stimulation. DBI’s Temporally Optimized Patterned Stimulation™ (TOPS) technology was designed to increase the efficiency of implanted neurostimulation systems. TOPS™ technology allows the development of devices that are designed to be more cost-effective, smaller, and longer lasting, requiring fewer lifetime replacements and reducing the potential for infection and other complications. DBI was formed in 2012 as a portfolio company of NDI Medical, LLC. For more information, visit www.deepbraininnovations.com.

About NDI
Founded in 2002, NDI is a hybrid venture capital and commercialization firm, and the only one focusing exclusively on innovative neurodevice technologies that address unmet needs with potential to provide significant returns to its investors. NDI is headquartered in Cleveland, Ohio with locations in North Carolina’s Research Triangle and Minneapolis, Minnesota. For more information, visit www.ndimedical.com
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