Medtronic News

Medtronic Acquires Stimgenics, Pioneer of DTM™, a Novel Spinal Cord Stimulation Therapy

Randomized Control Trial Results to be Presented at NANS Jan. 23-26 in Las Vegas; New, Proprietary Differential Target Multiplexed (DTM) Therapy Available on Medtronic Intellis Spinal Cord Stimulation Platform

DUBLIN, Jan. 08, 2020 (GLOBE NEWSWIRE) -- Medtronic plc (NYSE:MDT) announced it has acquired Stimgenics, LLC, a privately-held company based in Bloomington, Illinois, that has pioneered a novel spinal cord stimulation (SCS) waveform known as Differential Target Multiplexed (DTM™) Spinal Cord Stimulation. The therapy, which is delivered via the Medtronic Intellis™ platform, is a new and unique programming option to treat patients with chronic pain. Three month results from a randomized control trial (RCT) evaluating DTM versus conventional SCS will be presented at the upcoming North American Neuromodulation Society (NANS) 23rd Annual Meeting on January 23-26 in Las Vegas. The RCT will continue to evaluate outcomes through 12 months follow-up.

The DTM waveform may engage a novel mechanism that modulates both neurons and glial cells, expanding the understanding of SCS mechanisms of action. The DTM waveform has been studied in animal models, showing statistically significant reversal of pain behaviors compared to either low frequency or high frequency alone.1,2 In addition, preclinical studies investigating the genome of nerve-injured animals suggests that the DTM waveform has a greater impact in the neural-glial interaction than other frequencies alone. Decades of basic science research have expanded the understanding of the role of glial cells in the nervous system, which outnumber neurons 12:1 in the spinal cord.3-6 Glial cells are no longer thought to be only “glue” in the brain and spinal cord, but active contributors to neural processing and various disease states including chronic pain.7

“Stimgenics’ research is deeply rooted in clinical science that began with animal work more than a decade ago. Our preclinical data demonstrated that the modulation of both neurons and glial cells may return glial cells to their normal state and modify how they interact with neurons, which could normalize biological processes and break the pain cascade,” said Dr. Ricardo Vallejo, co-founder and director of research at Millennium Pain Center in Bloomington, Illinois, and founder and lead investigator of Stimgenics, LLC. “I’m thrilled that Medtronic has acquired a therapy that has the potential to significantly improve outcomes for chronic pain patients.”

Stimgenics’ preclinical research on the neuronal-glial mechanism of action has been recognized at various medical society meetings. Over the course of the past two years, the team has received six “best of” awards for their research, three of which were specific to research investigating the DTM mechanism of action. NANS awarded the “Best Basic Science Research Award” to Stimgenics at their annual meeting in both 2018 and 2019.

“Medtronic is committed to providing clinically-proven therapeutic options for millions of patients suffering from chronic pain around the world,” said Marshall Stanton, M.D., president of the Pain Therapies business, which is part of the Restorative Therapies Group at Medtronic. “We believe that DTM therapy will advance the treatment of chronic pain, supported by clinical evidence and preclinical research on a neuronal-glial mechanism of action. It’s an exciting, new proprietary SCS waveform that will be available on the Intellis platform, and we are looking forward to seeing the results of the randomized control trial data later this month at NANS.”

This transaction is expected to be neutral to fiscal year 2020 earnings per share and meet Medtronic’s long-term financial metrics for acquisitions. Additional terms of the transaction were not disclosed.

About Stimgenics, LLC

Stimgenics, LLC is a private company based in Bloomington, Illinois, that pioneered a novel spinal cord stimulation waveform known as Differential Target Multiplexed (DTM) Spinal Cord Stimulation.

About Medtronic Pain Therapies

Medtronic has more than a 40-year history of developing innovative medical devices that have been shown to alleviate pain in different disease states and has a broad portfolio of device-delivered therapies that are alternatives or adjuncts to oral opioids.8 Medtronic strives to be at the forefront of medical device innovation and to develop high-quality pain therapies that reduce pain and improve quality of life. While Medtronic pain therapies do not treat opioid addiction, the company is committed to leveraging its capabilities and product portfolio in partnership with stakeholders — patients, providers, payers, regulators, elected officials, patient advocacy groups and employers — to address the unmet needs of pain patients and to support efforts to prevent opioid misuse due to chronic intractable pain.

About the IntellisTM Platform

The Intellis platform offers the world's smallest implantable neurostimulator. It is powered by proprietary OverdriveTM battery technology and was designed to overcome limitations with other SCS systems, optimized for a wide range of energy demands and provides effective long-term pain relief for patients. The neurostimulator also features SureScanTM MRI, allowing access to MRI anywhere in the body under certain conditions, and AdaptiveStimTM technology, which automatically adjusts stimulation based on the patient's needs and preferences in different body positions to ensure the patient receives the right dose of stimulation at the right location.

About Medtronic

Medtronic plc (www.medtronic.com), headquartered in Dublin, Ireland, is among the world's largest medical technology, services, and solutions companies – alleviating pain, restoring health, and extending life for millions of people around the world. Medtronic employs more than 90,000 people worldwide, serving physicians, hospitals, and patients in more than 150 countries. The company is focused on collaborating with stakeholders around the world to take healthcare Further, Together.

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

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