

NeuroMetrix to Sponsor Clinical Study at the Scripps Translational Science Institute Assessing the Impact of Quell Technology on Opioid Use and Pain in Cancer Patients

WALTHAM, Mass.--(BUSINESS WIRE)-- NeuroMetrix, Inc. (Nasdaq: NURO) and the Scripps Translational Science Institute (STSI) today announced a clinical study of Quell[®] wearable pain relief technology in patients with cancer related pain.

According to the National Cancer Institute, about 15 million Americans are living with cancer or have a history of cancer. In these patients, chronic pain is one of the most feared and challenging symptoms. Unfortunately, the prevalence of pain is over 50% in most forms of cancer. Prescription opioids are the mainstay of the medical management of moderate to severe cancer pain. However, given the side effects and the stigma of opioid use, there is growing interest in alternative approaches to managing cancer related pain.

Quell utilizes neurostimulation technology to provide relief from chronic pain. The wearable device is lightweight and can be worn during the day while active, and at night while sleeping. In addition to analgesic therapy, Quell objectively tracks utilization and various health metrics including sleep and activity. In a recent study of Quell in non-cancer chronic pain, 81% of participants reported improvement in their chronic pain on the Patient Global Impression of Change (PGIC) scale. In addition, 67% of participants reported a reduction in use of analgesics.

The STSI study is 10-week single site, double blinded, sham controlled randomized clinical trial. The study will enroll 40 adult patients who have been diagnosed with metastatic breast, prostate or colorectal cancer and who use at least one opioid medication on a daily basis. These patients will be recruited from the Scripps Cancer Center in Hillcrest, which serves central San Diego and is a cornerstone fellowship and research site for both palliative care and oncology. The primary endpoint is a reduction in daily opioid use assessed at weeks 2, 4, 6, 8 and 10 of the study. A 20% change in opioid consumption will be deemed clinically relevant. This primary end point was chosen to provide a novel way for patients with cancer to have optimal pain control while reducing their overall opioid use. The study will also examine the potential benefits of Quell as a digital health intervention. The device integrates with a smartphone app that includes electronic pain tracking and provides objective feedback to the subject about their therapy utilization and sleep.

"We are honored to partner with STSI on this important study. Cancer related chronic pain is a major health problem and represents a unique clinical model to study the impact of Quell therapy," said Shai N. Gozani, M.D., Ph.D., President and CEO of NeuroMetrix. "This will be the first study specifically designed to quantitatively analyze the potential for Quell to reduce use of prescription opioids. We look forward to learning a great deal from this study."

"Our mission at STSI is to fundamentally change the way medicine is practiced. We recognize the importance of cancer related pain, and more broadly the difficulties associated with opioid therapy in chronic pain. We hope that this study provides insights into novel therapies for this critically important clinical challenge," said Dr. Steve Steinhubl, Scripps Translational Science Institute.

About Scripps Translational Science Institute

The Scripps Translational Science Institute aims to replace traditional one-size-fits-all medicine with individualized health care by leveraging the power of genomic medicine, wireless health sensors and mobile phone applications, and other digital medicine technologies. In a unique collaboration, STSI merges the considerable biomedical science expertise of The Scripps Research Institute with Scripps Health's exceptional patient care and clinical research capabilities. STSI is supported in part by the National Institutes of Health Clinical and Translational Science Award. For more information, visit www.stsiweb.org.

About NeuroMetrix

NeuroMetrix is an innovative health-care company that develops wearable medical technology and point-of-care tests that help patients and physicians better manage chronic pain, nerve diseases, and sleep disorders. The company is located in Waltham, Massachusetts and was founded as a spinoff from the Harvard-MIT Division of Health Sciences and Technology in 1996. For more information, please visit <u>www.NeuroMetrix.com</u> and <u>www.QuellRelief.com</u>.

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