

NeuroMetrix Reports Publication of Randomized Controlled Trial of Quell Wearable Pain Relief in Chronic Low Back Pain

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WALTHAM, Mass., Jan. 22, 2019 (GLOBE NEWSWIRE) -- NeuroMetrix, Inc. (Nasdaq:NURO) today reported publication of results from a randomized controlled trial of Quell® in subjects with chronic low back pain in the journal *Pain Practice*. The paper is titled "[Outcome of a High Frequency Transcutaneous Electrical Nerve Stimulator \(hfTENS\) Device for Low Back Pain: A Randomized Controlled Trial](#)." The study was conducted by Dr. Robert Jamison and colleagues at the Brigham and Women's Hospital Pain Management Center in Boston, MA.

The study was a three-month single site, controlled, randomized clinical trial. A total of 68 adult patients with a primary complaint of chronic low back pain were enrolled and randomized with equal probability to treatment with the Quell device (experimental group) or "treatment-as usual" (control group). Study subjects averaged 46.2 ± 12.7 years of age and 60% were female. All subjects reported chronic low back pain as their primary complaint. Over half of the subjects (57%) reported multi-site pain. All subjects used a smartphone app developed by the Pain Management Center that helps patients document and manage their pain. Outcome measures included the Brief Pain Inventory, the Pain Catastrophizing Scale, the Pain Disability Index and the Hospital Anxiety and Depression Scale. All subjects were given Quantitative Sensory Testing at baseline.

Several key findings from the trial include:

- Subjects in the experimental group reported significantly less pain compared to control subjects following 90 days of therapy. On average, subjects in the experimental group experienced a 1.2-point decrease in pain (on a 0 to 10 scale) compared to no change in the control group.
- Subjects in the experimental group reported less overall pain-related interference in function (e.g., activity, sleep, mood, work) compared to the control group.
- Subjects in the experimental group reported reduced pain catastrophizing scores compared to the control group.
- Subjects in the experimental group used their device 381 ± 353 hours during the study.

According to the Centers for Disease Control and Prevention (CDC), low back pain is the second most common cause of disability in US adults. The incidence of low back pain is as high as 12 percent of the general population at any given point in time, and nearly 25 percent of US adults report having had it at some point over any one-month period. The condition has a significant economic impact, with total costs estimated to be up to \$200B annually.

"Chronic low back pain is a major health problem with unmet therapeutic needs," said Shai N. Gozani, M.D., Ph.D., President and CEO of NeuroMetrix. "The results published in this trial, along with other studies published in peer-reviewed journals, suggest that Quell may be a useful treatment option for individuals with chronic low back pain."

About Quell

Quell is an advanced, wearable technology for treating chronic pain. It can be worn during the day while active and at night while sleeping. Quell is drug-free and has been cleared by the FDA for treatment of chronic pain without a prescription. Quell has been shown in multiple clinical studies to relieve chronic pain and, in a published study, 4 out of 5 users reported improvement in chronic pain. Quell users can personalize and manage therapy discreetly via the Quell app. Quell also offers health tracking relevant to chronic pain sufferers including pain, sleep, activity, and gait. Quell users can synchronize their data with the Quell Health Cloud™, which provides customized feedback and powers one of the world's largest chronic pain databases. Quell is available online and through select retailers. Visit QuellRelief.com for more information.

About NeuroMetrix

NeuroMetrix is a commercial stage, innovation driven healthcare company combining neurostimulation and digital medicine to address chronic health conditions including chronic pain, sleep disorders, and diabetes. The Company has two primary products. Quell is an over-the-counter wearable therapeutic device for chronic pain. DPNCheck® is a rapid point-of-care test for diabetic neuropathy which is the most common long-term complication of Type 2 diabetes. For more information, please visit <http://www.neurometrix.com>.

Source: NeuroMetrix, Inc.

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