

Vivo Cura Health Collaborates with PROTXX to Study Minimally Invasive Pain Interventions

Innovative studies will include phybrata sensor testing to measure potential loss of function resulting from minimally invasive procedures for chronic pain

CALGARY, ALBERTA, CANADA, July 21, 2022 /EINPresswire.com/ -- Calgary, Alberta based Vivo Cura Health is partnering with Calgary, Alberta and Menlo Park, California based PROTXX for a long-term collaboration to study the relationship between minimally invasive pain interventions and balance stability. The collaboration brings together Vivo Cura's multidisciplinary approach to pain management that helps people get back to active living and PROTXX's innovative phybrata sensing



technology that quantifies the contributions to balance impairment from the body's multiple physiological systems. Vivo Cura will leverage PROTXX phybrata sensors in their research studies to capture new insights into the body's response to non-surgical pain management techniques affecting the knee, spine, and other parts of the body.

In conjunction with the <u>Central Alberta Pain and Rehabilitation Institute</u>, Vivo Cura has launched an initial study to evaluate the safety and efficacy of genicular radiofrequency ablation (GRFA) in patients with persistent knee pain following knee replacement (total knee arthroplasty or TKA). GRFA is a minimally invasive procedure that dysfunctions some of the nerve endings that carry messages from the knee in order to reduce pain and improve function if TKA fails to do so. PROTXX's phybrata sensor will be used to objectively measure functional change in postural stability from pre-intervention to six months post-intervention. Phybrata sensing, a technology pioneered by PROTXX, is used to detect microscopic involuntary motions of the body caused by physiological impairments that disrupt balance and gait. PROTXX has previously shown that <u>phybrata balance biomarkers</u> enable detection and classification of neurological, sensory, and

musculoskeletal impairments with performance that matches current gold standard laboratory solutions such as computerized dynamic posturography and video motion capture systems, with sensitivity, specificity, and accuracy all above 90%.

The Vivo Cura study is significant in that if it is found to be safe and effective, GRFA for failed TKA would provide a much-needed non-surgical treatment option for many individuals with debilitating knee pain. Ultimately, positive results would shift current treatment practices to this evidence-based treatment to reduce healthcare utilization and associated costs. Collaborating with PROTXX in the study will allow Vivo Cura to monitor both improvements in postural stability associated with reduced pain and deterioration in postural stability associated with reduced nerve function as a potential adverse side effect of the intervention.

The above collaboration will expand in the fall of 2022 with the launch of a second study by Vivo Cura to study the analogous association between spine-related pain and balance stability. A team of clinical residents will collect phybrata measurements both pre- and post-intervention for various spinal procedures that modulate pain, including medial branch blocks, facet or joint blocks, selective nerve blocks, and radiofrequency neurotomy. The results of this second study could help researchers further explore and quantify the association of pain and postural stability and the effects of a variety of interventional procedures.

"Partnering with PROTXX is core to our commitment to a research driven expansion of pain solutions," said Dr. Ashley Smith, Physiotherapist at Vivo Cura. "By quantifying the effects of pain on postural stability, we will be able to better measure the effectiveness of clinical interventions and provide lasting solutions for getting back to the activities that bring joy to our patients." Dr. Smith, who is also Research Assistant Professor in the Department of Clinical Neurosciences at the Cumming School of Medicine at the University of Calgary, is the principal investigator in the initial study and will oversee the subsequent spine pain studies.

PROTXX CEO John Ralston added, "The important research being performed by the Vivo Cura team will help validate and introduce new techniques in pain management while paving the way for expanded use of phybrata metrics and biomarkers that can quantify the correlation between pain and postural stability."

About PROTXX Inc. (https://protxx.com/)

PROTXX innovations in wearable medical devices transform the lives of tens of millions of people with complex neurophysiological medical conditions that can result from injuries, disease, and aging. With offices in Calgary, Alberta, and Menlo Park, California, the company is led by an accomplished team of IoT device and data platform engineers, clinical neurology researchers and practitioners, and digital healthcare business professionals, and is supported by a well-established network of R&D, manufacturing, clinical pilot, and business development partners in Canada, the U.S., the U.K., and Europe.

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