

## Neursantys and University of Calgary Pilot Wearable Device to Treat Age-Related Balance Decline

CALGARY, ALBERTA, CANADA, November 24, 2022 / EINPresswire.com/ -- Neursantys, Inc. today announced it has launched a pilot study of the company's NEURVESTA wearable device with a team of researchers at the University of Calgary Human Performance Lab (UC-HPL). Under development for the past 2 years by Neursantys teams in Calgary and Chicago, NEURVESTA integrates both diagnostic assessment and therapeutic treatment of agerelated balance impairments. These impairments affect 70 million people in Canada and the U.S. over the age of 40, limiting their physical activity, increasing the risk of fall-related injuries, and making it increasingly difficult to continue living productively and independently.

A primary cause of balance decline is age-related changes in the vestibular balance organs in the inner ear. For the IRB-approved pilot study, 50 – 90-yearold participants are being recruited from the local Calgary population. Proprietary neuromotor sensor technology in the NEURVESTA device is



UC Pilot Study Team, L to R: Sadie Clark (Kin), Ryan Peters (Kin, BME, HBI), Paige Boklaschuck (Kin), Rachel Stephen (Kin), Mac Horwood (study participant, defensive coach for Calgary Dinos Football), Noah Walters (Kin), Jordan King (BME), Marc-Andre Doyon (Kin)

first used to create a diagnostic map of each participant's unique balance performance profile, including any impairments to key sensory inputs or the brain's ability to integrate and process these inputs and deliver motor control outputs to the musculoskeletal system. The therapeutic

function is then achieved using very low-level electric stimulation of the vestibular system ("EVS") to trigger several neuroplastic responses that induce persistent recovery of degraded balance. The NEURVESTA device is unique in its ability to tailor EVS parameters to each study participant's unique impairment profile. NEURVESTA lab prototypes have already achieved significant balance enhancements in study populations between 50 and 90 years of age. The EVS-induced balance improvements are observed to be persistent, cumulative, and large enough to significantly reduce fall risks. The UC-HPL pilot study is focused on determining NEURVESTA dosage parameters that can maximize the magnitude and persistence of EVS-induced balance enhancements while minimizing the number of therapeutic sessions that are required.

"UC-HPL researchers rank among the world's experts in developing EVS and related technologies to study vestibular balance impairments", explained John Ralston, PhD, Neursantys CEO and co-founder. "This expertise, together with highly skilled interdisciplinary teams of graduate and undergraduate student researchers from Biomedical Engineering, Kinesiology, the Wearable Technology Research and Collaboration (We-TRAC) program, and the Hotchkiss Brain Institute at the University of Calgary provide an ideal environment to develop and pilot the NEURVESTA device."

Ryan Peters, PhD, UC-HPL researcher, UC Assistant Professor, and Neursantys Chief Science Officer added "The opportunity to apply our academic research to important real-world applications such as enabling older populations to continue living actively and independently for much longer is allowing us to attract, train, and prepare our students to enter an exciting new era in wearable technology enabled healthcare."

## About Neursantys

With offices in Calgary, Alberta, and Chicago, Illinois, Neursantys integrates the company's innovations in wearable neurophysiological impairment sensing, non-invasive neuro-stimulation, and machine learning into a powerful new class of wearable device that can deliver both diagnostic detection and therapeutic correction of neurophysiological impairments caused by aging, trauma, and disease. For more information, visit <u>https://neursantys.com</u>.

###

Media inquiries

John Ralston Neursantys, Inc. john.ralston@neursantys.com

This press release can be viewed online at: https://www.einpresswire.com/article/602983696

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire,

Everyone's Internet News Presswire<sup>™</sup>, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information. © 1995-2023 Newsmatics Inc. All Right Reserved.