

The Official Newsletter of the **STROKE RECOVERY PROGRAM**



COVID UPDATES

The health and safety of our participants and staff remains our top priority as we restart research visits. Our research staff are fully vaccinated and have welcomed back vaccinated participants who feel comfortable coming back to Stanford for research. If you are a part of the StrokeCog research study, our research coordinators will be reaching out to schedule in person research appointments with participants who are vaccinated and feel comfortable coming back. Thank you for your willingness to be a part of this important research study.

VIBROTACTILE STIMULATION (VTS) REHAB GLOVE

This study is investigating new wearable stimulation devices for hand rehabilitation after stroke. The VTS Rehab Glove is a wireless, computerized glove that stroke survivors can wear during their daily life to provide gentle, vibratory stimulation to the affected hand or arm. No exercises are required. Study participants are invited to try the stimulation devices in lab, and may be selected to take a device home as part of a longer study. We are currently enrolling individuals with stroke-related hand spasticity (ex: fingers that curl or need stretching). If interested please contact us at seim@stanford.edu.

ONGOING STUDIES:

vREHAB

Study aiming to evaluate the safety, usability, and efficacy of a virtual reality biofeedback system to promote recovery of arm and hand function in the acute period after stroke.

NEUROCOACH

A virtual therapist for stroke rehab therapy, connecting patients to their occupational therapist from the comfort of their home to promote recovery.

STROKECOG

Tracking memory and cognition over time with annual testing and a small blood draw to find biomarkers.

VTS REHAB GLOVE

Investigating new wearable stimulation devices for hand rehabilitation after stroke using the VTS Rehab Glove, a wireless, computerized vibratory glove.

Kristy is a senior postdoc in the Buckwalter Lab, who is interested in understanding the chronic stroke outcomes such as the increased incidence of depression and dementia. In her spare time, she enjoys hiking with her dog around the bay area.



"PROTEINS ARE CLUES AS TO WHAT CAUSES DEPRESSION AFTER STROKE"

by Kristy Zera

Approximately one third of stroke survivors experience depression at some point after their stroke, and it has a major impact on their quality of life. Unfortunately, we still don't have a good understanding of what causes depression, and why many people don't respond to traditional antidepressants. To eventually develop better treatments, we first need to understand what causes depression. To begin to understand post-stroke depression, we tested blood from 85 StrokeCog participants who completed the Stroke Impact Scale survey, a way to measure depression. We measured the levels of over 1,000 proteins in each of these blood samples, and then used advanced statistical analyses to determine whether any of these proteins were associated with depression. We identified 202 proteins that are either higher or lower in stroke survivors with depression and identified novel biological pathways that are altered in depression after stroke. These proteins are clues as to what causes depression after stroke. Now we have a starting point to study them in the lab and ask whether and how they affect the brain and mood, and hopefully to develop new treatments that will help our participants and other stroke survivors in the future. We are grateful to our participants, without whom this work would not be possible!

ENROLLMENT MILESTONES

Our collaborators at the University of Manchester have begun enrolling for StrokeCog and are well on their way with 21 patients enrolled in just their first couple weeks. Meanwhile, Stanford also celebrates enrollment milestones with 211 participants enrolled in the StrokeCog research study.

SUPPORT THE STANFORD STROKE RECOVERY PROGRAM

Learn more. Visit our website to learn more about stroke recovery and find more information about our ongoing trials.

Participate. Could you or someone you know benefit from participating in one of our studies? Let us know! Contact us for more information or visit ClinicalTrials.gov to find ongoing clinical trials near you.

Donate. Consider contributing to our cause and help others by supporting the research that helps develop novel therapies.

Contact Us. 650.723.8886 StrokeRecovery@stanford.edu <https://stan.md/StrokeRecovery>