

Dr. Nathan Makowski Awarded \$3.1M NIH Grant to Develop System to Restore Walking After Stroke

9/30/2022



Nathan Makowski, PhD, staff scientist in the MetroHealth Center for Rehabilitation Research and the Department of Physical Medicine and Rehabilitation (PM&R), was awarded a \$3.1 million, five-year National Institutes of Health grant entitled "Customizable Cooperative Multi-joint Control to Enhance Walking Mobility After Stroke."

The goal of this research is to restore mobility and independence in stroke survivors. Dr. Makowski's team will use an implanted stimulation system to activate weak muscles due to a stroke in a coordinated manner to enhance walking ability. Investigators will develop approaches to coordinate assistance with users' movements, and then evaluate whether the device improves walking ability in a small group of stroke survivors.

Dr. Makowski is an Assistant Professor of PM&R at the Case Western Reserve University (CWRU) School of Medicine. With this grant, his first NIH R01, Dr. Makowski has reached a significant milestone in his professional trajectory as an independent investigator.

Dr. Makowski's co-investigators include:


- Musa Audu, PhD, Research Professor of Biomedical Engineering (BME) at CWRU
- Debbie Espy, PhD, Assistant Professor of Physical Therapy, Cleveland State University
- Douglas Gunzler, PhD, researcher, Department of Medicine at MetroHealth and Associate Professor of Medicine, CWRU
- Harry Hoyen, MD, orthopedic surgeon at MetroHealth and Professor of Orthopedics at CWRU
- Ronald Triolo, PhD, staff scientist, Department of Orthopedics at MetroHealth and Professor of BME at CWRU

- Richard Wilson, MD, PM&R physician at MetroHealth and Professor of PM&R at CWRU

MetroHealth Information Village © 2021 The MetroHealth System

Connect with MetroHealth 

(<https://www.facebook.com/metrohealthcle>) 

(<https://twitter.com/metrohealthcle>) 

(<https://instagram.com/metrohealthcle/>) 

(<https://www.youtube.com/user/metrohealthcle>)