

Congratulations

Eric Schearer, PhD

National Science Foundation Career Award



The Cleveland FES Center congratulates Eric Schearer, PhD on receiving a National Science Foundation (NSF) Career Award for his work, "Neuroprostheses for Functional Reaching by Users with High Tetraplegia."

There is a significant need to develop FES neuroprostheses capabilities for use by people with whole-arm paralysis. This study will create ways to coordinate electrical stimulation of the wearer's shoulder and arm muscles with control of reaching movements, and test the hypothesis that models can be learned by the neuroprosthesis to coordinate muscles to perform reaching movements. A secondary hypothesis that will be tested is that a caregiver can apply physical cues at the patient's forearm, "teaching" the neuroprosthesis to refine and expand reaching movements.

About the FES Center

The Cleveland FES Center is a consortium of the Louis Stokes Cleveland VA Medical Center, MetroHealth Medical Center, Case Western Reserve University, University Hospitals, and the Cleveland Clinic Neurological Institute. With their support, researchers, engineers and clinicians collaborate together to develop innovative solutions that improve the quality of life of individuals with neurological or other muscular skeletal impairments. Through the use of neurostimulation and neuromodulation research and applications, the Cleveland FES Center leads the translation of this technology into clinical deployment.