Brain Stimulation-Aided Stroke Rehabilitation: Neural Mechanisms of Recovery

PURPOSE: To investigate whether benefits of training the affected hand in patients with stroke can be improved by combining training with a painless, noninvasive technique of brain stimulation called Transcranial Direct Current Stimulation (TDCS). TDCS will be applied over the part of the brain responsible for movements of the affected hand. Also, we will study the changes in the brain that favor recovery of hand function following combination of training and TDCS.

ELIGIBILITY: Participants must be adults, ages 21 to 70 years with mild-to-moderate impairments in upper limb function due to stroke. They must be six months post-stroke with the ability to extend their fingers and wrist more than 10 and 20 degrees, respectively.

PRINCIPAL INVESTIGATOR: Ela B. Plow, PhD, PT

RESEARCH COORDINATORS: Corin Bonnett, BS, 216.445.6728 and Alexandria Wyant, BA, 216.445.6728