Freezing of gait in Parkinson’s disease

Dr. Brent Bluett

Dr. Brent Bluett completed neurology residency at the University of Texas Southwestern at Austin, and a movement Disorders fellowship at the University of California San Diego. He is a Movement Disorders specialist at the Cleveland Clinic Nevada Lou Ruvo Center for Brain Health (CCLRCBH) with expertise in Parkinson’s disease, atypical parkinsonism (i.e. Progressive Supranuclear Palsy), dystonia, ataxia, tremors, and in therapeutic interventions such as botulinum toxin injections and deep brain stimulation.

Dr. Bluett is the principal investigator on several therapeutic clinical trials at the CCLRCBH, and recently published the first large research study on falls in Progressive Supranuclear Palsy. He is expanding the findings to reduce falls in other movement disorders, and recently received funding from the NIH to study freezing of gait in Parkinson’s disease (PD-FOG). This three year project will combine neuroimaging, cognitive evaluation, and clinical findings to elucidate the underlying mechanisms of PD-FOG and advance efforts to treat this disabling condition.

Dr. Bluett is a member of the American Academy of Neurology Movement Disorders steering committee, Parkinson Study Group, Dystonia Medical Research Foundation, CurePSP research committee, National Ataxia Foundation, and Huntington Study Group.

Exploring structural brain network dynamics in neurodegenerative disorders

Virendra Mishra

Virendra Mishra, Ph.D., is a project staff at Cleveland Clinic Lou Ruvo Center for Brain Health (LRCBH). He received the B.E. in Biomedical Engineering and M.S. in Electrical Engineering from the University of Mumbai, India and The University of Texas at Arlington in 2005 and 2009, respectively, and in 2014 earned his Ph.D. in Biomedical Engineering from the joint program at The University of Texas at Southwestern Medical Center at Dallas and The University of Texas at Arlington. Dr. Mishra’s research primarily involves developing novel algorithms with Diffusion Tensor Magnetic Resonance Imaging (DTI-MRI) for better characterization of white matter tracts in the brain. Since joining LRCBH, he has been developing innovative algorithms to understand the pattern of structural brain damage in boxers using DTI, T1-weighted MRI, and perfusion deficits in active professional fighters by applying Arterial Spin Labeling (ASL) to measure cerebral blood flow (CBF). He has also been actively investigating changes in the diffusion pattern of Parkinson’s disease, both from the perspective of novel voxel-wise measures of tract-specific changes in fractional anisotropy and free-water content and investigating topological brain organizations using graph theoretical approaches.