Washington University in St. Louis School of Medicine

Program in Physical Therapy

The Systems Neuroscience and Rehabilitation Lab at Washington University School of Medicine, led by Laura McPherson, PT, DPT, PhD, has immediate openings for two post-doctoral research associate positions for human-subjects research. We seek motivated candidates with a strong interest in neural control of movement, systems neuroscience, neural engineering, and/or neurorehabilitation.

Our lab studies neural control of movement and how it changes after neurological injury due to stroke or multiple sclerosis. We examine how the central nervous system controls movement by considering voluntary motor commands at the level of the motoneuron—the end-stage of central nervous system processing where motor commands are uniquely relevant to movement. Our work centers around the study of motor unit population discharge, recorded non-invasively using high-density surface EMG decomposition.

One post-doc will take a lead role in advancing a project that investigates neural mechanisms of motor deficits in multiple sclerosis. There will also be opportunities to participate in other ongoing studies in the lab. <u>https://wustl.wd1.myworkdayjobs.com/External/job/Washington-University-Medical-Campus/Postdoctoral-Research-Associate---Program-in-Physical-Therapy_JR67158</u>

The other post-doc will take a lead role on a collaborative, multi-site, R01-funded project that uses reverse engineering of motor unit firing patterns to identify and characterize components of the voluntary motor command at the level of the motoneuron. There will also be opportunities to participate in other ongoing studies in people with neurological injury.

https://wustl.wd1.myworkdayjobs.com/External/job/Washington-University-Medical-Campus/Postdoctoral-Research-Associate---Program-in-Physical-Therapy_JR67160-1

Our growing lab is located within the Washington University School of Medicine, which provides a vibrant, highly collaborative environment for neural engineering and rehabilitation research and a demonstrated commitment to enhancing diversity, equity, inclusion, and belonging.

Qualified candidates are encouraged to email a curriculum vitae, a statement of research experience and interests, and the names and contact information for at least three scientific references to Dr. Laura McPherson: <u>laura.mcpherson@wustl.edu</u>.

Sincerely,

aurahopperson

Laura McPherson, PT, DPT, PhD Assistant Professor of Physical Therapy and Neurology; Faculty, Program in Neurosciences email: <u>laura.mcpherson@wustl.edu</u> website: <u>https://sites.wustl.edu/snrlab</u>

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