RESEARCH FOUNDATION CUNY

Careers at RFCUNY
Job Openings

Job Title	Postdoctoral Fellow
PVN ID	CC-2207-004955
Category	Research
Location	The CITY COLLEGE of NEW YORK
Department	Biomedical Engineering / CSoM
Status	Full Time
Salary	Depends on qualifications
Hour(s) a Week	35
Closing Date	Sep 18, 2022 (Or Until Filled)

General Description

Postdoctoral positions are available to study the biological effects of corticospinal system neuromodulation on motor learning and neural repair with a team of biomedical engineers and neuroscientists in the laboratories of Lucas Parra and John Martin. Our laboratories study the role of activity-dependent neural processes that underpin LTP, motor learning, motor system repair after injury, and recovery of limb motor functions. Our state-of-the-art laboratories are located at the CUNY research campus at The City College of New York and the CUNY School of Medicine. We have extensive investigational resources, including human and animal TMS, confocal microscopy, electrophysiological and optogenetic instrumentation, electrical circuit design and manufacturing, and 3D printing, human psycho-physics and EEG and fMRI.

For these positions, we will use the following approaches in the rat to investigate biological processes underlying motor learning, neural repair, and neuromodulation: **electrophysiology** (multielectrode spinal cord and motor cortex recording, motor cortex motor mapping, electromyographic recording), **molecular anatomical techniques** (dual-construct viral tract tracing, confocal microscopy), and **biochemistry and molecular biology** (Western blotting, qPCR). We will also use behavioral analyses, together with chemogenetic activation and inactivation approaches, to manipulate the activity of cortical neural circuits to probe mechanisms and causality. We will use signal analysis approaches to quantify largescale cortical synaptic changes in relation to neuromodulation and motor learning. We encourage applicants that have a strong background and training in electrophysiological approaches (including instrumentation), Matlab (or equivalent) programming, and animal behavioral approaches.

Upload CV and the names and contact information of three references to the RF Careers page with your application.

Parra lab: http://parralab.org/

Martin lab: http://martinlab.ccny.cuny.edu/

The Research Foundation of the City University of New York is an Equal Opportunity/Affirmative Action/American with Disabilities Act/E-Verify Employer

Other Duties

Qualifications