June 28, 2021

Neurotransmitter

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Neurotransmitter Schedule

The next ***Neurotransmitter*** will be published and mailed electronically on **Tuesday, July 12, 2021.** All seminar announcements and notices must be submitted to Natalee Bright via email (CNUP@pitt.edu) **no later than 12:00 noon on Thursday, July 8, 2021.**

Notices

Wed., 6/30
1:00 p.m.

TBA

Via Zoom

Jennifer Lippincott-Schwartz, PhD
Senior Group Leader
Howard Hughes Medical Institute

Virtual link:
https://pitt.zoom.us/j/94499125102

(Sponsored by the Pittsburgh Institute for Neurodegenerative Diseases)

Wed., 6/30
10:00 a.m.

PhD Dissertation Defense
Interrogating the Role of Cocaine-Generated Silent Synapses in the Regulation of Cocaine-Associated Memory Dynamics

Via Zoom

William (Jake) Wright, BS
Center for Neuroscience
Kenneth P. Dietrich School of Arts & Sciences/ Neuroscience

Virtual link:
https://pitt.zoom.us/j/91447599561

(Sponsored by the Center for Neuroscience)

Wed., 6/30
2:00 p.m.

Endocannabinoid Modulation of Stress Responsivity and Alcohol Withdrawal

Via Zoom

Sachin Patel, PhD
James G. Blakemore Professor of Psychiatry and Behavioral Sciences, Molecular Physiology & Biophysics, and Pharmacology, Director, Division of General Psychiatry
Vanderbilt University Medical Center

Virtual link:
https://pitt.zoom.us/j/446524361

(Sponsored by the Department of Neuroscience)

Tues., 7/6
1:00 p.m.

PhD Dissertation Defense
Regulation of NMDA Receptor Channel Block and Desensitization by Intracellular Calcium

Hybrid-
Cathedral of Learning 332

Matthew Phillips, BS
Center for Neuroscience
Kenneth P. Dietrich School of Arts & Sciences/ Neuroscience

Virtual link:
https://pitt.zoom.us/j/94551024136

(Sponsored by the Center for Neuroscience)

Wed., 7/7
1:00 p.m.

Retinal Ganglion Cell Differentiation and Transplantation

Via Zoom

Kun-Che Chang, PhD
Assistant Professor of Ophthalmology
University of Pittsburgh

Virtual link:
https://pitt.zoom.us/j/93011203511

(Sponsored by the Department of Neurobiology)

Fri., 7/9
2:00 p.m.

PhD Dissertation Defense
Kappa Opioid Signaling in the Brainstem and Spinal Cord for Itch and Pain

Hybrid-
BST S120

Eileen Khanh-Minh Nguyen, BS
Center for Neuroscience
School of Medicine/Neurobiology

Virtual link:
https://pitt.zoom.us/j/94088671196

(Sponsored by the Center for Neuroscience)

Postdoctoral Position in Neurophysiology and Neuroimaging

The laboratory of Dr. Ferrarelli at the University of Pittsburgh has an opening for a postdoctoral researcher. The goal of the research is to investigate the neurobiology of psychiatric disorders, and especially schizophrenia and related disorders, employing neurophysiological and neuroimaging techniques. These techniques include high-density (hd)-EEG, Transcranial Magnetic Stimulation (TMS), fMRI, and 7T Magnetic Resonance Spectroscopy Imaging (MRSI), applied both during wakefulness and sleep.

Our lab recently utilized some of these techniques to identify several putative biomarkers in patients with chronic schizophrenia, and you will be involved in novel studies assessing these biomarkers in early course psychosis and individuals at clinical high risk for schizophrenia and related disorders. Some of these biomarkers have been associated to memory, plasticity, and general cognitive ability, and tend to predict post-learning performance improvement in healthy individuals. Thus, by collecting these measures in adolescents and young adults, our studies could not only significantly contribute to an early detection and assessment of the level of risk for psychosis but could also contribute to elucidate some of the neural circuits and mechanisms underlying learning and memory in the normally developing brain.

This position is therefore ideal for candidates who are interested in employing a multi-modal imaging approach to characterize brain circuits implicated in risk for psychosis and related cognitive dysfunctions during a critical phase of brain maturation. It will also provide the opportunity to spend time in Pittsburgh, one of the most livable and vibrant cities in the country, and to work in the Department of Psychiatry, a unique environment for young researchers to foster collaboration, be productive, and develop an independent program of research.

Applicants should send a CV and a statement of interest to the PI (ferrarellif@upmc.edu).

Candidate Profile:

1) Ph.D. in neuroscience, psychology, biology, physics, mathematics or other neuroscience-related disciplines
2) Preferred experience in one or more of the above-mentioned techniques
3) One or more first-author publications in an international, peer-reviewed neuroscience journal
4) Strong data-analysis and programming skills (MATLAB, C, R, MNE-Python, or related programming languages)
5) Proficient in spoken and written English

Postdoctoral Position in Population Neuroscience of Aging

A postdoctoral position is available for a highly motivated individual to study the problems of brain aging by applying neuroscience and epidemiological methods.

The fellow will work with our eBRAIN research group, led by Dr. Caterina Rosano, at the University of Pittsburgh. eBRAIN applies cutting-edge brain imaging methods and longitudinal trajectories of risk factors to understand brain aging effects on cognitive and physical function. The anticipated research project involves collection and analysis of DTI and PET imaging of the dopaminergic system, as well as analyses and data collection of ultra- high field images at 7 Tesla. The fellow will be exposed to a highly interactive and interdisciplinary group of neuroscientists, neuroepidemiologists, neuroimagers, and psychiatrists. Candidates must have a doctoral degree in neuroscience, epidemiology or related fields with strong quantitative skills. Technical expertise in neuroimaging techniques and the ability to learn and develop new skills are required. A strong fundamental understanding of study design is highly desirable. The successful candidate should have an excellent publication record, solid written/verbal English communication skills, strong organizational skills, and the ability to work independently.
The eBRAIN research group is situated within the Department of Epidemiology at the Graduate School of Public Health, located in the heart of the Oakland Campus, in Pittsburgh, Pennsylvania. The University of Pittsburgh is an integrated global health enterprise and one of the leading health care systems in the United States. Diverse and inclusive, University of Pittsburgh educates medical students, scientists, health care professionals and the public; conducts biomedical research; and provides patient-centered medicine to prevent, diagnose and treat human illness.

Interested and qualified applicants are encouraged to consult http://www.publichealth.pitt.edu/home/directory/caterina-rosano
https://www.facebook.com/e.brain.pitt

Applications must include:

1) A cover letter outlining research accomplishments and career goals,
2) Curriculum vitae, and
3) A list of three references with contact information (including mailing address, phone number and e-mail address) to:

Caterina Rosano, MD, MPH
Professor of Epidemiology
Graduate School of Public Health
University of Pittsburgh,
130 De Soto Street,

South Parran Hall, 5139
Pittsburgh PA, 15261
(412)-383-1294 or (412)-759-3572
http://www.publichealth.pitt.edu/home/directory/caterina-rosano
https://www.facebook.com/e.brain.pitt
http://www.caph.pitt.edu/researchprog.html

Newly Funded T32 in Population Neuroscience

The Graduate School of Public Health and the Department of Psychiatry at the University of Pittsburgh are pleased to announce a **new pre- and postdoctoral training program** in **Population Neuroscience of Aging & Alzheimer's Disease**. The program is co-directed by Drs. C. Rosano and M. Ganguli, with positions available immediately.

The PNA program trains highly talented individuals to pursue successful independent research in the etiology of Alzheimer's Disease and other age-related dementia (ADRD). Eligible applicants must have backgrounds in either contemporary neuroscience or population/data science. For example: PhD graduates or candidates in Epidemiology, Neuroscience, Information Science, Biostatistics, Biomedical informatics and MD/DO graduates with training in Neurology, Psychiatry, Geriatric medicine, and related disciplines. Please contact stc15@pitt.edu with questions.

Postdoctoral Associate Positions in Systems Neuroscience

Postdoctoral positions are available in the Runyan lab in the Department of Neuroscience at the University of Pittsburgh. Our research involves dissecting inhibitory and neuromodulatory circuits across the cortical hierarchy. Our goal is to understand how changes in behavioral context and brain state shift local information processing and the transmission of information between cortical networks. We use two-photon imaging of population activity and optogenetics in head-fixed mice performing perceptual decision-making tasks. See carolinerunyan.org for more information about our work.

We are seeking individuals with experience in two-photon imaging, large-scale electrophysiology, optogenetics, and/or mouse behavior. As we build our laboratory and our own approach to understanding the brain, the ideal candidates should have strongly driven scientific curiosity and problem-solving skills, as well as excellent interpersonal skills. This position offers the opportunity to participate in building a new research program, and to work in the highly collaborative, collegial environment at the University of Pittsburgh and Carnegie Mellon University. See cnbc.cmu.edu and https://www.cnup.pitt.edu/ for more details.
Interested candidates should send a CV, statement of research interests, and contact information for two references to runyan@pitt.edu.

Postdoctoral Research Fellow in the Neuroimaging Laboratory

The Neuroimaging Laboratory at the University of Pittsburgh has a postdoctoral research fellow position open immediately. The candidate should possess a Ph.D. degree in biomedical engineering, neuroscience, or a related field, and have published scholarly articles in peer-reviewed scientific journals. The candidate should have a strong research background in brain imaging, systems neuroscience, neurophysiology (electrophysiology, neuro-metabolism and/or blood flow regulation), computation, neural engineering, and/or data analysis (signal/image processing).
Experience with rodent experimentation, advanced biological imaging (two-photon or optical microscopy or fMRI), neural tissue histology, and data analysis in MATLAB/Python are essential. The candidate will work on longitudinal imaging of rodent brain dynamics in health and disease. The candidate may also be involved in projects related to early detection of Alzheimer's disease and neural engineering depending on interests. The candidate will be working with an interdisciplinary team of radiologists, neurologists, neural engineers, material scientists and biophysicists. Candidates with experience in calcium imaging or MRI/fMRI (especially in animals) are strongly encouraged to apply.

Interested candidates should submit curriculum vitae, the names of three references, a statement of research experience, and date of availability to Alberto L. Vazquez (alv15@pitt.edu). Information on the Neuroimaging Laboratory can be found on this website (http://neuroimaginglab.pitt.edu).

The Department of Radiology is strongly committed to a diverse academic environment and places high priority on attracting female and underrepresented minority candidates. We strongly encourage candidates from these groups to apply for the position.
The University affirms and actively promotes the rights of all individuals to equal opportunity in education and employment without regard to race, color, sex, national origin, age, religion, marital status, disability, veteran status, sexual orientation, gender identity, gender expression, or any other protected class.

Two Post-Doc/Senior Scientist Positions in Auditory Neuroscience

The Teichert lab at the University of Pittsburgh has openings for two postdoctoral researchers or senior scientists to study auditory function in the macaque monkey (www.teichert.pitt.edu). Scientifically, the lab is focused on identifying the neural substrate of auditory short-term memory (Teichert & Gurnsey, 2019, J Neurophys) to better understand how it can be affected in conditions such as schizophrenia. Methodologically, the lab is focused on bridging the gap between single-cells and macroscopic EEG by concurrently recording from a 1,000-channel 3-dimensional grid of LFP contacts that covers the entire volume of one hemisphere. The

positions are funded by a new R01 MH120117 "Echoic memory function and physiology in the rhesus macaque" and an ongoing BRAIN Initiative RF1 MH114223 "Understanding the synaptic, cellular and circuit events in of MEG & EEG using a vertically translational cross-species approach".

The post-docs will be part of the lively and growing auditory neuroscience community at Pitt/CMU, and will benefit from the multi-disciplinary environment of the BRAIN Initiative grant led by PIs Teichert, Doiron and Salisbury as well as collaborators Chamanzar, Kass, Ghuman, Sweet, and Gonzales-Burgos. Successful applicants will likely have a strong background in one or more of the following: auditory neuroscience, non-human primate electrophysiology, or EEG/MEG source-reconstruction techniques. Applicants should send a CV and a statement of interest to Dr Teichert (teichert@pitt.edu).

Postdoctoral Fellow/Staff Scientist/Research Associate Position: Translational Neuroscience, University of Pittsburgh

The Torregrossa Laboratory in the Department of Psychiatry's Translational Neuroscience Program at the University of Pittsburgh is in search of a qualified post-doctoral fellows or research technicians. The position is supported by a newly funded, collaborative R01 from NIAAA (https://projectreporter.nih.gov/project_info_description.cfm?aid=9912917&icde=47306435&ddparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball=) to investigate the interactions between alcohol exposure and sleep at a neurophysiological level in the labs of Drs. Mary Torregrossa and Yanhua Huang.
The project involves the use of many advanced techniques including EEG recordings, sleep analysis, slice electrophysiology, sleep manipulations, and alcohol drinking behavior. Opportunities will also be available to work on related projects that include the use of DREADDs, optogenetics, in vivo calcium imaging and fiber photometry. The ideal candidate will have prior experience in some of the techniques described above, with experience in slice physiology highly desired.

Qualified applicants at the post-doctoral or staff scientist level are expected to hold a recent doctoral degree in a related field and to have a strong record of productivity. Research technicians will be considered with at least a Bachelor's degree in a biological science or bioengineering related discipline and prior lab experience. Candidates are expected to work collaboratively within a collegial team and have excellent oral and written communication skills.

The Department of Psychiatry and Center for Neuroscience at the University of Pittsburgh offers a highly collaborative, top-notch research and training environment. The successful candidate(s) will become part of a large, multidisciplinary neuroscience community, and will have ample opportunities for collaboration. Training grant positions are available for competitive post-doctoral candidates who are interested in pursuing an independent academic position. Competitive salary and benefits are available. Interested candidates should email their curriculum vitae/ biosketch, a letter of interest outlining experience and research goals, and the names and contact information of three references to torregro@pitt.edu.

Postdoctoral Position Available

A postdoctoral position investigating the organization and function of auditory corticofugal projection systems in behaving mice is available in the Williamson Laboratory at the University of Pittsburgh.

Details on the research focus and approaches of the laboratory can be found here:

https://www.williamsonlaboratory.com/research/

Applicants must have a PhD in Neuroscience or a relevant field and must be eligible for employment in the US. We are looking for individuals with an excellent record of research achievements and expertise at the intersection of two or more of the following areas: electrophysiology, two-photon imaging, quantitative behavior, and computational neuroscience. Applications will continue until the position is filled.

The Williamson Laboratory is the newest member of the Pittsburgh Hearing Research Center at the University of Pittsburgh. The lab is embedded within the Departments of Otolaryngology and Neurobiology and affiliated with the Center for Neuroscience (CNUP) and the Center for the Neural Basis of Cognition (CNBC). Postdoctoral fellows will be part of a highly supportive and diverse research environment with excellent career development opportunities. The University of Pittsburgh was ranked third in terms of total NIH funding received in 2018. The Global Livability Index (The Economist) recently ranked Pittsburgh as the second most livable city in America.

Interested candidates should email a brief statement of research interests, a CV, and the names and contact information of three references to Dr. Ross Williamson (rsw@pitt.edu).

Postdoctoral Application

The Bio-Integrating Optoelectric Neural Interface Cybernetics Lab within the Department of Bioengineering at the University of Pittsburgh is seeking a post-doctoral associate. The position is funded through an active grant from the NIH to conduct leading-edge research at the frontier of neuroscience and neurobiology using novel engineered technologies to disentangle long-standing basic neurobiology questions at the interface of neurophysiology and engineering. The goals of the lab broadly fall into three categories: (1) Manipulating neuronal and non-neuronal cells to

influence the function of neuronal networks, (2) Understanding the role of neuroimmune cells in neural circuit function, neuronal damage, and CNS regeneration, and (3) Improving long-term performance of implanted electrodes and integrating man-made (engineered) technology with the human brain for the purpose of studying normal and injured/diseased nervous systems in vivo at the cellular level, as well as restoring function to patients. Applicants should hold a PhD in a related field including but not limited to Biomedical Engineering, Neurobiology, Neuroscience, Molecular/Cellular Biology, Biochemistry, Electrical Engineering, Computer Science, Mechanical Engineering, Chemical Engineering, Physics, Optics, Material Science, and Mathematics. Animal surgery experience is preferred.
The candidate should have a strong research background in *in vivo* electrophysiology or *in vivo* two-photon microscopy. Expertise with *in vivo* two photon imaging, viral transduction in rodent brain, image processing (e.g. GCaMP) and head-fixed visual cortex experiments (V1) are desired. Experiences with electrical stimulation, optogenetics, transgenic animal models, histology, functional/evoked electrophysiology/imaging, advanced optical imaging, stroke, TBI, and neurodegenerative diseases is seen as advantages. He/she will be working with an interdisciplinary team of neural engineers, neuroscientists, neurosurgeon, biologists, and material scientists. The appointment is intended to be 2 years and may be renewable depending on availability of funds. It is expected that most candidates will lack experience in all the above areas; training will be provided to fill necessary proficiencies. To apply, please send a cover letter and curriculum vitae (CV) as a single pdf document to Takashi Kozai (tdk18@pitt.edu).
The Department of Bioengineering is strongly committed to a diverse academic environment and places high priority on attracting female and underrepresented minority candidates. We strongly encourage candidates from these groups to apply for the position. The University affirms and actively promotes the rights of all individuals to equal opportunity in education and employment without regard to race, color, sex, national origin, age, religion, marital status, disability, veteran status, sexual orientation, gender identity, gender expression, or any other protected class.

Visit BIONICLAB.ORG for more information.

Postdoctoral Positions Available

The Department of Anesthesiology and Perioperative Medicine at the University of Pittsburgh is seeking to fill two postdoctoral research positions in chronic pain and drug dependence. Our NIH-funded research laboratory discovers, visualizes and manipulates pathological changes in CNS circuits that develop in the setting of neuronal injury, inflammation, diabetes, and multiple sclerosis. For example, we discovered new mechanisms by which tissue or nerve injury establishes opposing systems of persistent pain sensitization (latent neuronal sensitization) and analgesia (constitutive activity of *Gi*-protein coupled receptors) (e.g. Solway et al, PNAS; Corder et al, Science. We also validate new protein and cellular targets for the development of new non-opioid pharmacotherapies and analgesic drugs for chronic pain. Please see our laboratory web pages https://www.taylorlab.anes.pitt.edu/

Within the Pittsburgh Center for Pain Research, we provide a dynamic research environment with exceptional resources for training in basic and translational neuroscience, including scientific mentorship and collaboration within the PCPR, and access to state-of-the-art core facilities at Pitt. Together, we will design experiments that incorporate your existing and emerging strengths in an environment that values hard work, intellectual curiosity, innovative thinking, and teamwork. For more details on training opportunities in pain research such as journal clubs, courses, and seminars, please see our PCPR website http://pcpr.pitt.edu/

Applicants must have a PhD in neuroscience, physiology, pharmacology or equivalent and have demonstrable achievement, interest and preparation to address important questions in neuroscience, including multiple first-authored research articles in well-known international journals. This includes publications with one or more of the following methods: behavioral pharmacology in *cre*-transgenic mice, *in vivo* GCaMP calcium imaging / optogenetics / chemogenetics, fluorescence in situ hybridization, single-cell RNA sequencing, or drug vapor self-administration in mice. Current graduate students with US citizenship or permanent residence (green card) in strong training programs are encouraged to apply and will be fully supported in their submission of early-career NIH grants. Advanced fellows with a proven track record of high quality first-author publications in strong journals will also be considered.

Please send a Cover Letter that briefly details career goals and prior research experience, CV, and list of three references to Dr. Bradley Taylor via email BKT@pitt.edu.

Postdoctoral Associate Position Opening

Research Topic: Molecular and Cellular Pathobiology of Neurodegenerative Disease

Start Date: Position available immediately

Description: The Donnelly Laboratory in the Department of Neurobiology at the University of Pittsburgh School of Medicine is searching for enthusiastic and creative postdoctoral associates to study the molecular and cellular neurobiology of Amyotrophic Lateral Sclerosis (ALS), Frontotemporal Degeneration (FTD), and related dementias. Researchers

will work in a collaborative environment within the LiveLikeLou Center for ALS Research at the University of Pittsburgh Brain Institute under the advisement of Christopher Donnelly. Postdoctoral associates will be expected to lead one of a few possible research projects investigating RNA binding protein biology, RNA metabolism, or intracellular transport in neurodegeneration. Successful candidates will be expected to carry out basic and translational research employing molecular/cellular biology, biochemistry, cutting-edge microscopy techniques, and induced pluripotent stem cell model systems.

Interested candidates should have a Ph.D. and a publication history in the biological sciences or related fields at their start date. Proficiency with molecular/biochemical methodologies, mammalian cell culture, and basic microscopy is required. Candidates with experience utilizing induced pluripotent stem cell cultures, protein biochemistry, liquid-liquid phase separation, nucleic acid cellular assays, or DNA/RNA sequencing and analyses are encouraged to apply. Postdoctoral NIH training grant opportunities are available.

Successful candidates will work closely with Dr. Donnelly to develop a high-impact research project that aligns with their interest as well as a detailed career plan catered to their long- term goals within academia, industry, or other fields.

Requirements: Ph.D. degree in biological sciences or relevant field at the time of start date. **Interested candidates should send their curriculum vitae to chrisdonnelly@pitt.edu.**

References will be requested for qualified candidates.

The University of Pittsburgh is an Affirmative Action/Equal Opportunity Employer and values equality of opportunity, human dignity, and diversity. EOE including disability/veterans.

Postdoctoral Research – Neuroscience in Anesthesiology

A postdoctoral position is available for a highly motivated individual to join a growing effort to study the neuroscience of anesthetics and pain relief using functional neuroimaging and complimentary techniques. The position is within the University of Pittsburgh, Department of Anesthesiology and Perioperative Medicine, under the direction of Keith Vogt, MD, PhD. The NIH-funded research program is cross-disciplinary, with collaborators in the Departments of Bioengineering, Medicine (Division of Geriatrics), Psychiatry, and Psychology.
The appointment is intended to be two years and may be renewable. Applicants must have an MD, DO, or PhD in a relevant field and be eligible for employment in the US. NIH-funded training grant positions are available for competitive candidates. An entry-level staff scientist position is also available for interested candidates.

Candidates must be comfortable with data analysis and basic statistics and have excellent oral and written communication skills. Those with a strong computational or engineering background are encouraged to apply, and work would include novel/emerging data analysis techniques. Hands-on experience in clinical and volunteer human subject research would be available, including on clinical imaging trials involving administration of anesthesia during MRI scanning. Those interested in pursuing an independent research career would also contribute to developing extramural grant applications and would be encouraged and supported in applying for their own mentored research training grants.

Interested and qualified applicants are encouraged to review the following sites for more information:
https://www.anesthesiology.pitt.edu/people/keith-m-vogt-md-phd .
https://www.anesthesiology.pitt.edu/research/research-training/postdoctoral-research-training

Interested applicants should email Keith.Vogt@Pitt.edu, with "*APPLICATION*" in the subject line.
Applications must include (ideally as a single file):
1) Cover letter outlining research accomplishments and career goals
2) Curriculum vitae
3) A list of 3-5 references with contact information (including institutional affiliation, phone number and e-mail address)

RESEARCH ASSISTANT POSITION AVAILABLE IN THE DEPARTMENT OF PSYCHIATRY AT THE UNIVERSITY OF PITTSBURGH.

A research technician position is available in the laboratory of Dr. Rui Peixoto in the Translational Neuroscience Program at the University of Pittsburgh. The Peixoto lab uses electrophysiology, optogenetics, behavioral analysis and 2-photon microscopy to study the development of cortical and striatal circuits and its implication in autism spectrum disorders. The ideal candidate will be able to work collaboratively and communicate effectively with an interactive and collegial research group. Specific job responsibilities include mouse colony maintenance (breeding and genotyping), performing mouse surgeries, running behavioral studies (including optogenetics) and histological analysis of brain sections. Previous experience handling rodents is an asset. Requirements: Bachelor's Degree in Biology, Neuroscience, or related field required. At least 1 year of experience working in a neuroscience or molecular biology research laboratory. Interested

candidates should email CV/biosketch and a letter of interest to rup14@pitt.edu.

Research Specialist/Research Scientist Positions in Neurodegenerative Disease

An exciting new project on microglial biology in neurodegenerative disease has created two new positions in the Burton Lab in PIND. As a result, we are currently recruiting outstanding Research Specialists or Research Scientists with expertise in: (i) intravital imaging and image analysis; and (ii) testing experimental therapies in mouse models of neurodegeneration. As the project is funded by the US Department of Veterans Affairs, applicants must be eligible for VA employment (IPAs may be available, allowing current Pitt employees to retain their university position). Funding starts 1 October 2021, although an earlier start date may be possible. Salary is negotiable, commensurate with qualifications and experience. Fluent written and spoken English, commitment to scientific rigor and excellence, and the ability to work within a team are essential. Enquiries are welcome from all qualified candidates, including researchers from groups historically under-represented in science. Please contact Edward A. Burton MD, DPhil, FRCP (eab25@pitt.edu) to learn more about these opportunities informally. Further details can be found at: https://www.burtonlab.pitt.edu/opportunities/

Postdoctoral Position in Neuropathology

A postdoctoral position is available in the laboratory of Dr Julia Kofler in the Division of Neuropathology at the University of Pittsburgh. The position is supported by a newly funded R01 grant from NIA to study "Genetic and molecular correlates of white matter pathology in Alzheimer's disease". The project involves the use of many advanced techniques including whole slide imaging, digital image analysis, digital spatial profiling, RNA sequencing and genome-wide association studies. The lab is tightly integrated with the Neurodegenerative Brain Bank and affiliated with the Alzheimer's disease research center at the University of Pittsburgh. The major goals of the lab are to 1) identify and characterize genotype associations of AD pathology endophenotypes; 2) to define neuropathologic features of Chronic Traumatic Encephalopathy; and 3) to identify neurobiological processes underlying the development of psychosis in Alzheimer's disease.

The ideal candidate will have a PhD in neuroscience, genetics or a related discipline and have published scholarly articles in peer-reviewed articles. Prior experience with analysis of large omics datasets is highly desirable. The candidate will be working with an interdisciplinary team of neuropathologists, neuroscientists, geneticist and biostatisticians and is expected to have excellent oral and written communication skills.

Interested applicants should send a CV, letter of interest outlining experience and research goals, and the names and contact information of three references to koflerjk@upmc.edu.

Research Technician Position Available to Study Circuits Underlying Motor Control and Motor Learning

A research technician position is available in the Hooks lab at the University of Pittsburgh School of Medicine for either a highly motivated young researcher or a senior researcher interested in mapping neural circuitry of motor control and motor learning.

Our lab uses state-of-the-art methods for circuits mapping: cell-type specific mice to identify subtypes of neurons, stereotaxic surgery and viral vectors to target, label, excite, and manipulate selected neurons, and neurophysiological methods to map local and long-range circuits. An ideal candidate will have experience with animal husbandry, stereotaxic surgery, histology/immunostaining, and fluorescence microscopy. These techniques will be most crucial to on-the-job success. We can train exceptional candidates in these skills as well.

Scientific creativity, excellent verbal and written communication skills, and technical expertise are essential. Interested candidates should send a resume or curriculum vitae (CV), a cover letter stating research interests, and contact information for three references to **Bryan (Mac) Hooks** (**hooksm@pitt.edu**).

More information about the lab is available at:
http://www.neurobio.pitt.edu/faculty/hooks.htm

The lab is funded by NINDS (NIH 1R01 NS103993), The Department of Defense (CDMRP Discovery Award), and the University of Pittsburgh. Positions are available immediately with competitive salary and benefits (NIH scale). The Department of Neurobiology has exceptional strength in motor systems and excellent resources for collaboration and career development. The Pittsburgh neuroscience community (including Neuroscience, Neurobiology, Biomedical Engineering, and Mathematics at Pitt and Carnegie Mellon) is extensive.

NROSCI 1014/2014: Speaking of Science

Fall Semester, 2021
MW 11:00-12:15 p.m.
Crawford Hall room 241

During the Fall Semester, Dr. Judy Cameron (jcameron@pitt.edu) and Dr. Carol Colby (ccolby@cnbc.cmu.edu) will teach NROSCI 1014/MSNBIO 2014, Speaking of Science. This course teaches strategies for giving presentations about science to both a scientific audience and a public audience. Topics covered include (1) how to engage your

audience, (2) the art of breaking down your message, (3) tips for how to make clear, interesting slides, and (4) pointers on presentation style. Communication skills, including knowing your audience and why they are interested in the information you are speaking about, how to translate scientific jargon into understandable concepts for the public, and how to keep the audience engaged will be discussed. Students give a total of 4 presentations and receive individualized feedback on all presentations. The course is offered to both undergraduate and graduate students. It is particularly useful to students who will present a formal scientific presentation at a meeting, a public talk, or defend their thesis in the coming year.

Questions about the course and requests to view the course syllabus can be directed to Dr. Judy Cameron (email: jcameron@pitt.edu). The course is now published in Canvas for those interested in looking at the details (all sections are combined and can be viewed: 2221 NROSCI 1014 SEC1040).

A Postdoctoral position is available with a start date around 1 October 2021

A position will be available in the Pittsburgh-based laboratory of George Wittenberg, MD, PhD. The project is on: 1. the normal role of the premotor cortices on motor function and, 2. the altered role in people with a specific type of stroke and to develop a method of synchronized practice and brain stimulation that can enhance motor function. Techniques used include transcranial magnetic stimulation, exoskeleton robotics, and MRI.

The laboratory is part of the Human Engineering Research Laboratory and Rehab Neural Engineering Labs, with affiliations at the University of Pittsburgh, UPMC, and Carnegie Mellon University. The environment is excellent for training in general, and particularly in motor rehabilitation after neurological injury.

Ideal candidates will have experience/familiarity in some or all of the following:

- Analysis of multijoint movement and muscle activity
- Transcranial Magnetic Stimulation
- Functional MRI
- Recovery of Motor Function after Stroke

An advanced degree in Biomedical Engineering, Physical or Occupational Therapy, Psychology, or Neuroscience is preferred but other applicants will be considered.

This is not a formal announcement of a position being available. The position would be offered through the Department of Veterans affairs, which is an equal opportunity employer. Please contact George Wittenberg at GeoWitt@Pitt.edu with a C.V.

Post-doctoral Fellow – Restorative Neuroscience

Applications are invited for a highly motivated post-doctoral position to investigate the role of neurogenesis in bioscaffold-induced tissue regeneration in rodent models of stroke. The candidate is expected to be part of a multi-disciplinary effort that encompasses bioengineering, neuroscience and radiological approaches. Our laboratories main aim is to develop restorative approach to repair the damage caused by stroke in preclinical models. This encompasses the use of extracellular matrix as a bioscaffold, but also includes the use of neural stem cells and their formulation in pre-formed tissue constructs.
The position is ideal for a researcher interested in developing expertise in the emerging field of restorative neuroscience. The applicant will be encouraged and supported to pursue independent funding and advance their academic career. Collaborative projects with industry partners also provide an opportunity to explore careers in the biotechnology and pharmaceutical sectors. This NIH-funded position will be for an initial appointment period of 2 years.

The post-doc fellow is expected to lead our effort to implant extracellular matrix-based bioscaffold into a rat model of stroke using MRI-guidance, followed by immunohistochemical analyses to evaluate its potential for the treatment of tissue damage caused by stroke. The main focus of this position will be on *in vivo* preclinical experiments and their histological analysis, but opportunities are available to extend this effort to include behavioral analyses and magnetic resonance imaging. As part of the candidates post-doctoral training, it is expected that they will contribute to manuscript and grant writing, as well as present their research effort at scientific conferences. The post-doc will also have the opportunity to co-supervise undergraduate and graduate researchers, as well as be an integral part of managing the day-to-day activities of the laboratory.

For more information:
http://www.radiology.pitt.edu/ril.html
https://www.frontiersin.org/articles/10.3389/fnins.2019.01156/full

Applications and further inquiries: This position is immediately available. Interested applicants should email **Dr Mike Modo** (mmm154@pitt.edu) with their CV, a cover letter outlining their interests and career plans, as well as the names for 3 references.