October 28, 2019

Neurotransmitter

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Neurotransmitter Schedule

The next ***Neurotransmitter*** will be published and mailed electronically on **Monday, November 11, 2019.** All seminar announcements and notices must be submitted to Natalee Bright via email (CNUP@pitt.edu) **no later than 12:00 noon on Thursday, November 7, 2019.**

All seminars are listed in the "News and Events" section on the CNUP web site, *http://cnup.pitt.edu*. The web site is updated as information is received so you can find additions or changes between issues of the *Neurotransmitter.*

Notices

Tues., 10/29
4:00 p.m.

Synaptic States, their Plasticity and Implications for Psychiatric Disorders

Langley Hall A219B

Oliver Schluter, PhD
Assistant Professor of Neuroscience
Department of Neuroscience
University of Pittsburgh

(Sponsored by the Department of Neuroscience)

Tues., 11/05
4:00 p.m.

Provost Inaugural and Distinguished Lecture:
A Neural Circuitry Substrate for Cognitive Dysfunction in Schizophrenia

University Club Ballroom A

David A. Lewis, MD
Distinguished Professor of Psychiatry and Neuroscience, Thomas Detre Professor of Academic Psychiatry, Chairman of Department of Psychiatry
University of Pittsburgh

(Sponsored by the University of Pittsburgh Provost Office)

Thurs., 11/07
12:00 p.m.

Pharmacology & Chemical Biology Seminar:
Discovering Mechanisms of Epileptic Encephalopathy with SUDEP

BSTWR 1395

Lori Isom, PhD
Maurice H. Seevers Professor and Chair of Pharmacology, Professor of Molecular and Integrative Physiology, Professor of Neurology
University of Michigan Medical School
Department of Pharmacology

(Sponsored by the University of Pittsburgh School of Medicine Department of Pharmacology & Chemical Biology)

Fri., 11/08
12:00 p.m.

Department of Psychiatry Lecture Series, Distinguished Scientist Lecture:
Understanding Risk Factors for the Development of Psychosis: Early Findings from the Adolescent and Brain Cognitive Development (ABCD) Study

UPMC WPIC 2nd Floor, Auditorium

Deanna Barch, PhD
Chair, Department of Psychological and Brain Sciences
Professor of Psychological and Brain Sciences, Psychiatry, and Radiology
Washington University

(Sponsored by the Department of Psychiatry)

Mon., 11/11
4:00 p.m.

Distinguished Lecture in Neurobiology:
Pathways of Organelle- Organelle Cross Talk and Their Role(s) in Cell Metabolism And Homeostasis

University Club, Ballroom A

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

(Sponsored by the Department of Neurobiology)

Tues., 11/12
11:00 a.m.

Neural Substrates for Auditory Perception and Decision-Making

Langley Hall A219B

Yale E. Cohen, PhD
Chair, Bioengineering Graduate Group
Department of Otorhinolaryngology Head and Neck Surgery
University of Pennsylvania School of Medicine

(Sponsored by the Department of

Neuroscience)

Thurs., 11/14
12:00 p.m.

Pharmacology & Chemical Biology Seminar:
Acetylcholine Signaling in Emotional Behaviors

BSTWR 1395

Marina Picciotto, PhD
Charles B.G. Murphy Professor in Psychiatry, Deputy Chair for Basic Research, Professor of Neuroscience and Pharmacology
Yale University School of Medicine

(Sponsored by the University of Pittsburgh School of Medicine Department of Pharmacology & Chemical Biology)

Fri., 11/15
10:00 a.m.

Using Drosophila to Investigate the Mechanism of Synaptic Transmission and its Role in Aging and Parkinson's Disease

BST3 7023

Hakeem Lawal, PhD
Associate Professor and Vice Chair
Department of Biological Sciences
Delaware State University

(Sponsored by the Center for Neuroscience and the Department of Neuroscience)

Fri., 11/15
1:00 p.m.

PhD Dissertation Defense
Acquired Dysregulation of Dopamine Homeostasis Reproduces Features of Parkinson's Disease

BST3 6014

Meghan Bucher, BS
Center for Neuroscience
Kenneth P. Dietrich School of Arts & Sciences/Neuroscience

(Sponsored by the Center for Neuroscience)

Wed., 11/20
1:00 p.m.

The Sean Logan Distinguished Lecture Series on Neurodegeneration:
Enter the Matrix: Novel Therapeutic Targets for Ischemic Stroke and Vascular Dementia

BST3 6014

Gregory Bix, MD, PhD, FAHA
Director, Clinical Neuroscience Research Center, Professor and Vice Chair of Clinical and Translational Research, Department of Neurosurgery, Vada Odom Reynolds Chair in Stroke Research, Professor of Neurology
Tulane University School of Medicine
Center for Clinical Neurosciences

(Sponsored by the Pittsburgh Institute for Neurodegenerative Diseases)

Thurs., 11/21
4:00 p.m.

Center for Neural Basis of Cognition (CNBC) Alumni Lecture:
A Distributional Code for Value in Dopamine-Based Reinforcement Learning

328 Mellon Institute

Matthew Botvinick, PhD
Director of Neuroscience
DeepMind

(Sponsored by the Center for the Neural Basis of Cognition)

Thurs., 12/05
12:00 p.m.

Topics at Noon Series:
Vascular contributions to cognitive impairment and dementia

ADRC Conference Room S439

C. Elizabeth Shaaban, PhD, MPH
Postdoctoral Fellow, Population Neuroscience of Aging & Alzheimer's Disease, Department of Epidemiology, Graduate School of Public Health

(Sponsored by the University of Pittsburgh Alzheimer Disease Research Center and University of Pittsburgh School of Medicine Continuing Education in the Health Sciences)

Fri., 12/06
12:00 p.m.

Department of Psychiatry Lecture Series, Meet the PI Lecture:
On the Neurobiology of Suicidal Behavior: From Clinical to Biological Phenotyping

UPMC WPIC 2nd Floor, Auditorium

Nadine M. Melhem, PhD
Associate Professor of Psychiatry
University of Pittsburgh
School of Medicine

(Sponsored by the Department of Psychiatry)

Postdoctoral Fellow/Staff Scientist Position
Translational Neuroscience/Electrophysiology
University of Pittsburgh

A postdoctoral fellow or staff-scientist position is available in the laboratory of Dr. Susanne Ahmari in the Translational Neuroscience Program at the University of Pittsburgh http://ahmarilab.pitt.edu/. This project will utilize multiple advanced techniques for the analysis and manipulation of cortico-striatal circuits in order to discover the cellular and circuit abnormalities underlying compulsive behaviors. This position is funded by an NIMH R01 (https://projectreporter.nih.gov/project_info_description.cfm?aid=9709695&icde=45654581), with potential

additional support from a Burroughs Wellcome Fund Career Award for spin-off projects for a motivated candidate.

The ideal candidate will have expertise in *in vivo* electrophysiology in awake animals. They will also have the opportunity to learn and apply other techniques including optogenetics, *in vivo* calcium imaging, and viral tract tracing.

Qualified applicants are expected to hold a recent doctoral degree in neuroscience, biological sciences, bioengineering, or related disciplines, with a track record of productivity. Prior experience in electrophysiology, computational analysis methods. rodent behavioral testing, and optogenetics is highly preferred. Candidates must be able 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 sahmari@pitt.edu.

Research Associate

RESEARCH ASSOCIATE POSITION AVAILABLE IN THE DEPARTMENT OF PSYCHIATRY AT THE UNIVERSITY OF PITTSBURGH MEDICAL CENTER

A research technician position is available in the laboratory of Dr. Susanne Ahmari in the Translational Neuroscience Program at the University of Pittsburgh. The Ahmari lab uses multiple advanced techniques for the analysis and manipulation of neural circuits in order to discover the molecular, cellular, and circuit abnormalities underlying Obsessive Compulsive Disorder and anxiety. The ideal candidate will be able to work collaboratively and effectively communicate with an interactive and collegial research group. Specific job responsibilities include mouse colony maintenance (including breeding and genotyping), performing mouse behavioral studies (including optogenetics), cryostat/tissue mounting, immunohistochemistry, preparing reagents and solutions, and general lab duties such as autoclaving and dishwashing. Preference will be given to candidates with experience in stereotaxic surgery.

Requirements: Bachelor's Degree in Biology, Neuroscience, Psychology, Chemistry, or related field required. At least 1 year of experience working in a neuroscience or other biological science laboratory. At least 1 year of experience required with rodent experiments generally, with specific experience in the areas of rodent colony maintenance, genotyping, and behavioral experiments. Opportunities will also be available for motivated candidates to learn in vivo microscopy and in vivo electrophysiology.

Interested candidates should email their CV, a letter of interest outlining experience, and the names and contact information of three references to ahmarise@upmc.edu.

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

Post-Doctoral Position in Translational Auditory NeuroImaging Available at the Western Psychiatric Institute and Clinic, University of Pittsburgh School of Medicine

The main research goal of the CNRL is to further understand the progressive pathology and pathophysiology of emerging psychosis. We utilize multimodal imaging including concurrent electroencephalography (EEG) and magnetoencephalography (MEG), structural MRI, MR diffusion spectrum imaging, fMRI, and MR pseudo-continuous arterial spin labeling measures of blood perfusion. Brain activity measures span simple sensory and perceptual processes to complex higher-order cognition. Within our collaborative basic program of research into auditory neurophysiology, our currently NIH-funded cross-species study of auditory processing in non-human primates and humans is seeking a post-doctoral associate with interest in brain imaging, neurophysiological source analysis, and advanced signal processing.

We seek an exceptional individual with training in EEG or MEG, or advanced signal processing and modeling techniques to undertake the human component of this project. Familiarity with and skills in multimodal imaging, advanced signal processing (e.g., ICA, fusion), source localization, or other analytic methods are desired. Interest in signal processing and mathematical modeling are necessary.

The interdepartmental team includes Prof Salisbury's laboratory: (https://psychiatry.pitt.edu/news/dr-dean-f-salisbury-forges-new-ground-detect-underlying-brain-abnormalities-giving-rise),

Dr. Tobias Teichert's laboratory: (http://www.psychiatry.pitt.edu/about-us/our-people/faculty/tobias-teichert-phd),

and Dr. Brent Doiron's group: (https://www.mathematics.pitt.edu/people/brent-doiron).

The post-doctoral associate will also work closely with the animal and neural modeling groups.

The postdoctoral position is for one year with a potential for renewal pending funding and satisfactory performance. If interested, please contact Prof. Salisbury via e-mail (attach your CV): salisburyd@upmc.edu

Check out our website www.cnrl.pitt.edu

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, neuro-epidemiologists, 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 cnup.pitt.neurobio.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).