Message from the Director:

This week we concluded our NeuroNetworking summer series. Over the past 8 weeks we have traversed various disciplines of Neuroscience here at Purdue, and still only captured a fraction of the exciting discoveries occurring on campus. I encourage you, as we transition to the academic year, to stay engaged, reach out, and learn more about the diversity of expertise we have. Many have asked if we will continue the NeuroNetworking series through the year, which is not planned. Instead, beginning in the Spring of 2017, we hope to revive the "Special Lectures in Neuroscience" Course as its associated Distinguished Lectures in Neuroscience public seminars. We will be soliciting applications from faculty for course descriptions. Details will follow in the next newsletter.

In other news, the proposal worksheet that is filled out when submitting a proposal with pre-award is undergoing a face lift. The new iteration is expected to go live soon. Please remember to identify your affiliation with the Purdue Institute for Integrative Neuroscience (this in no way affects your departmental credit/reporting). **Due to some questions regarding the travel grant - we will extend the deadline to Friday, August 5th and allow Masters students and postdocs to apply if they would like.** Finally, we are pleased to have our official logo for the Institute, as you can see below. We have a number of colored versions we will be posting on the website for you to access, in the meantime, if you need one, email neuro@purdue.edu.

I hope you take a minute to enjoy the last few weeks of summer before the academic year takes off!

Donna Fekete, Inaugural Director

PURDUE INSTITUTE FOR INTEGRATIVE NEUROSCIENCE

Where science meets engineering

Travel Grant

The Institute for Integrative Neuroscience is accepting applications for a travel award which will provide up to $500 to support student travel to scientific meetings held August 2016 to January 2017. If you are a graduate student traveling to a meeting between now and January of 2017 you are eligible for this round. To apply, submit a single PDF file containing items 1-3 to neuro@purdue.edu by 5pm August 5th. Additionally, please have a referee submit a letter of recommendation on your behalf (item number 4) via the same method.

Each application should contain the following:

1 - Cover letter from the student that includes the name of the meeting or conference to be attended, the approximate costs for the meeting (registration, travel, etc.) and the type of presentation (poster, talk, etc.) if any, and why attending this particular meeting will be beneficial to your professional development. Additionally, please indicate if you have previously attended this event or if this is your first time.

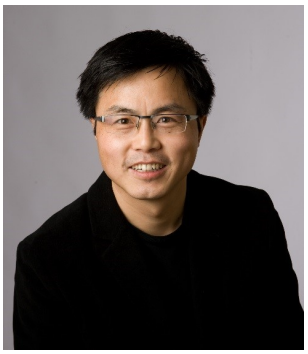
2 - A copy of the abstract of your presentation, if possible.

3 - A short (1-2) sentence statement from your major professor that he/she supports your attendance to this meeting and indicating that sufficient lab funds exist to cover all costs over $500.

4 - One letter of support from a professor who is NOT your major professor; as mentioned above this should be submitted by the reference.

Featured Faculty Member:

Prof. W. Andy Tao leads an active research group focusing on new developments in proteome analyses using systems biology approaches. For the past several years, a number of novel proteomic strategies and techniques have been developed in his research group to analyze proteins and their modifications involved in specific biological functions. Current research projects related neuroscience include the identification of protein biomarkers for early onset of Alzheimer's Disease from biofluids and dissecting signaling pathways involving CDKL5, whose mutations are related to a rare X-linked genetic disorder that results in early onset, difficult to control seizures, and severe neuro-developmental impairment.



Tao received his mass spectrometry training through his dissertation work on gas-phase chiral analysis in the Aston Lab at Purdue University, headed by Dr. R. Graham Cooks. After receiving his Ph.D. in December 2001, he became a Damon Runyon Postdoctoral Fellow in the Institute for Systems Biology at Seattle, under the supervision of Drs. Leroy Hood and Ruedi Aebersold. He started his own research group in the Department of Biochemistry at Purdue University in 2005, and currently is Professor in ranking. He also has courtesy appointments in the Department of Chemistry, Department of Medicinal Chemistry & Molecular Pharmacology, and Purdue Center for Cancer Research. If you'd like to learn more about Dr. Tao, please visit his website.

Save the Date:

Chromatin & Epigenetics Symposium will be held on Tuesday, October 11, 2016. Session topics include: Epigenetic process in development and differentiation, RNA-dependent epigenetic regulation, chromatin biology and disease and chromatin and genome integrity. https://www.conf.purdue.edu/landing_pages/ces/

Funding Opportunities:

Eli Lilly-Stark Neurosciences Pre-Doctoral Research Fellowship in Neurodegeneration - 2016.08

LETTER OF INTENT (LOI) DEADLINE - AUGUST 5, 2016

FULL APPLICATION DEADLINE - AUGUST 26, 2016 (5:00 PM)

The Stark Neurosciences Research Institute and the Indiana Clinical and Translational Sciences Institute (CTSI) are seeking applicants for special pre-doctoral training fellowships in translational neurodegenerative disease research. We seek applicants whose research is focused on age-related neurodegeneration, including Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, chronic traumatic encephalopathy, among others. Translational research refers to what is popularly termed as "bench to bedside"; the process by which research in the lab translates into patient treatment. Translational research fosters the multidirectional integration of basic research, patient-oriented research, and population-based research, with the long-term aim of improving the health of the public. Translation can involve everything from basic science discoveries in the lab that directly focus on human disease states, through animal studies and drug development to the development of clinical trials and studies in humans.

Annual stipend (plus applicable health insurance) is aligned with current NIH recommendations. Annual supplement of $7,500 to be used for travel, computers, and general supplies. Initial funding duration is for one (1) year, and is renewable for one (1) additional year pending review and demonstration of satisfactory progress.

Eli Lilly-Stark Neurosciences Post-Doctoral Research Fellowship in Neurodegeneration - 2016.08

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Activity-Based Therapy Grant Program - Indiana Spinal Cord & Traumatic Brain Injury Research Fund - 2016.09

LETTER OF INTENT (LOI) DEADLINE - AUGUST 12, 2016
FULL APPLICATION DEADLINE - SEPTEMBER 9, 2016 (5:00 PM)

The State of Indiana established the research fund known as the Indiana Spinal Cord and Traumatic Brain Injury Research Fund (ISCBIRF) effective July 1, 2007. This fund, established under Indiana Code (IC) 16-41-42-4, will consist of appropriations, gifts and bequests, fees deposited in the fund under IC 9-29-5-2, and grants received from the federal government and private sources.

Effective July 1, 2015 this fund was supplemented and additionally authorized by legislation to provide prescribed, defined, and limited support to non-profit organizations corresponding to 501(c) 3 Federal tax status engaged in rehabilitative clinical care employing “activity based” approaches.

The overall objective of this program is to foster and encourage activity-based therapy programs for the prevention, treatment, and cure of spinal cord and traumatic brain injuries, including acute management, medical complications, rehabilitative techniques, and neuronal recovery.

Applications to this program are limited to $1,000,000 (maximum of $600,000 during the first year; $400,000 during the second year) for up to two (2) years in duration based on appropriate achievement of milestones and progress reports.

Burroughs-Wellcome Career Awards at the Scientific Interface BWF’s Career Awards at the Scientific Interface (CASI) provide $500,000 over five years to bridge advanced postdoctoral training and the first three years of faculty service. These awards are open to U.S. and Canadian citizens or permanent residents as well as to U.S. temporary residents. Candidates must hold a Ph.D. degree in one of the fields of mathematics, physics, chemistry, computer science, statistics, or engineering and must have completed at least 12 months but not more than 48 months of postdoctoral research by the date of the full invited application deadline. *Sponsor Deadlines:* Sept 6 – Pre-proposal; January 9 – Invited full proposals.

NIH Biophysical and Biomechanical Aspects of Embryonic Development This FOA encourages applications that propose to advance our knowledge in the area of the physics and mechanics of embryonic development.

- *RO1* Deadline: September 19
- *R21* Deadline: September 19

NIH Impact of Aging in Human Cell Models of Alzheimer's Disease (R01) The goal of this FOA is to establish the impact of aging on the expression and/or modulation of AD pathological processes and to assess age-related AD genotype-phenotype relationships in human cell models. Research incorporating different brain cell types to promote neural circuit maturation and complexity in such cell models is expected to better recapitulate and give greater insight into AD pathological processes. Deadline: September 28.

NIH Development and Application of PET and SPECT Imaging Ligands as Biomarkers for Drug Discovery and for Pathophysiological Studies of CNS Disorders (R01) This FOA invites research grant applications from organizations/institutions that propose the development of novel radioligands for positron emission tomography (PET) or single photon emission computed tomography (SPECT) imaging in human brain, and that incorporate pilot or clinical feasibility evaluation in pre-clinical studies, model development, or clinical studies. Deadline: October 5.

NIH Novel Approaches to Diagnosing Alzheimer's Disease and Predicting Progression (R01) The goal of this FOA is to identify new approaches to diagnosing AD and predicting outcome. These novel biomarkers should provide new biological information about patients with dementia and/or address the shortcomings of currently-validated biomarkers. Deadline: October 5

NSF Dear Colleague Letter: Change Makers EHR invites innovative research and development proposals to advance STEM learning, while exploring solutions to multidisciplinary or transdisciplinary global challenges in either formal or informal settings for learners of all ages and prior educational experience, including learners traditionally under-represented in STEM. Research and development efforts should contribute to both the STEM and STEM education knowledge bases. Deadline: Varies by directorate

NIH Social Epigenomics Research Focused on Minority Health and Health Disparities This FOA supports and accelerates human epigenomic investigations focused on identifying and characterizing the mechanisms by which social experiences at various stages in life, both positive and negative, affect gene function and thereby influence health trajectories or modify disease risk in racial/ethnic minority and health disparity populations.

- *RO1* Deadline: November 15
- *R21* Deadline: November 15

NIH Autism Centers of Excellence (ACE) This program is intended to build on the research progress and momentum of the past decade by funding research on innovative interventions and services for individuals with ASD across the lifespan, as well as cutting-edge research on the neurobiological basis and phenotypic characteristics of ASD that might lead to the identification of novel intervention strategies. A PD/PI may submit only one application, either an ACE Center or an ACE Network. This

does not exclude multiple applications from a single institution, provided each application is submitted by a different PD/PI.

Networks (R01) Each ACE Network will consist of a multi-site project focusing on a specific topic of research for R01 support through this FOA. Each ACE Network will submit one R01 application that includes sub-awards to the collaborating sites. Deadline: November 17

Centers (P50) The P50 mechanism allows for integrative, multi-disciplinary, coordinated programs of research that demonstrate cohesion and synergy across research projects and cores. Deadline: November 17

DOD-ARMY Funding Opportunities

Parkinson's Focused Idea Award Deadlines: November 9 – Pre-application; November 30 – Application

Parkinson's Impact Award Deadlines: November 9 – Pre-application; November 30 – Application

Epilepsy Idea Development Award Deadlines: August 17 – Pre-application; November 9 - Application

Peer Reviewed Alzheimer's Convergence Science Research Award Deadlines: August 17 – Pre-application; November 9 – Application

Peer Reviewed Alzheimer's Epidemiology of Military Risk Factors Research Award Deadlines: August 17 – Pre-application; November 9 – Application

Peer Reviewed Alzheimer's Translational Research Partnership Award Deadlines: August 17 – Pre-application; November 9 – Application

Peer Reviewed Alzheimer's Quality of Life Research Award Deadlines: August 17 – Pre-application; November 9 – Application

Our mailing address is:
Purdue University Pillars of the Life Sciences
207 S. Martin Jischke Drive
Lafayette, IN 47907