Message from the Director

With so much exciting activity in the last few weeks, I don't know where to begin! We could discuss Riyi Shi's Black Award from the Elevate Ventures Fund to help get his start up, Neuro Vigor which focuses on treating multiple sclerosis, off the ground. If we'd rather, we could examine the work being done by the Purdue Neurotrama Group (Larry Leverenz, Eric Nauman, and Thomas Talavage) researching the effects of repeated head impacts on the brains of high school football players. Or how about the two Purdue Faculty members recently awarded NIH grants for Brian research - congratulations to Mathew Tantama and Meng Cui for their award as part of the Brian Research though Advancing Innovative Neurotechnologies Initiative. The Integrative Neuroscience Center is home to some pretty amazing people and opportunities, and we hope to bring you that information on a regular basis.

- Donna Fekete, *Inaugural Director*

Featured Faculty Member:

Dr. Jessica Ellis is a recent addition to Purdue University, and is already making an impression. She started her lab in 2014 in the Department of Nutrition Science where she studies fatty acid metabolism in both cardiovascular and neurological health and disease. As a post-doctoral fellow at Johns Hopkins

School of Medicine, she studied neuronal fat metabolism in a novel mouse model that presented with neurodegeneration and increased susceptibility to seizures. This work pinpointed an enzyme that keeps neurons' fat levels under control, and has been implicated in human neurological diseases. The neuroscience-based branch of Dr. Ellis's lab is gearing up to investigate the role and regulation of brain omega-3 fatty acid metabolism; omega-3 fatty acids are the good fats that can only be obtained from one's diet. Ellis's lab has generated a new mouse model and are excited to utilize this model to explore the beneficial connections and mechanisms through which brain omega-3 fatty acid metabolism influences behavior, cognitive development, and neurological health. Want to collaborate with Jessica? The Ellis Lab is seeking expertise and equipment to determine mouse cognition, behavior, and indexes of neurological health. Additionally, future research collaborations could occur with investigators who postulate that brain omega-3 fatty acid metabolism might influence their research models or are generally interested in brain lipid metabolism. Learn more about Jessica Ellis here.

Upcoming Events:

- March 3rd the Integrative Neuroscience Center will host a postdoc/graduate student event at Mackey Arena from 6-9 PM. Graduate students, Postdocs, and Faculty members associated with Integrative Neuroscience are welcome and encouraged to attend. RSVP here.

- Save the date for our upcoming Traumatic Brain Injury Symposium on May 11th at the Burton D. Morgan Center. Details will be forthcoming.

- Friday, May 13th, the 2016 Chicago Symposium on Translation Neuroscience will take place at the Kapp Center for Biomedical Discovery. For more information click here.

Funding Opportunities:

NIH Mechanistic Basis of Diffuse White Matter Disease in Vascular Contributions to Cognitive Impairment and Dementia (VCID)(R01) The purpose of this FOA is to support hypothesis-testing research to elucidate cellular and molecular mechanisms that underlie diffuse white matter disease of vascular origin including multifocal, small, and silent brain infarcts that may contribute to cognitive impairment and dementia. Deadline: April 19

Limited Submission: *NIH Team-Based Design in Biomedical Engineering Education (R25)* The over-arching goal of this NIBIB-NICHD R25 program is to support educational activities that complement and/or enhance the training of a workforce to meet the nation's biomedical, behavioral and clinical research needs. To accomplish the stated over-arching goal, this FOA will support creative educational activities with a primary focus on Courses for Skills Development. This FOA encourages applications from institutions that propose to establish new or to enhance existing team-based design courses or programs in undergraduate Biomedical Engineering departments or other degree-granting programs with Biomedical Engineering tracks/minors. This FOA mainly targets undergraduate students but may also include first-year graduate students. Courses and programs that address innovative and/or ground-breaking development, multidisciplinary/interdisciplinary education, the regulatory pathway and other issues related to the commercialization of medical devices, and clinical immersion are especially encouraged. For this opportunity, Purdue may submit only ***one*** application.

Preproposals and rankings to the EVPRP should be e-mailed to EVPRPlimited@purdue.edu. Purdue's open limited submission competitions, limited submission policy, and templates for preproposals may be found at http://www.purdue.edu/research/funding-and-grant-writing/limited-submissions.php. For any case in which the number of preproposals received is no more than the number of proposals allowed by the sponsor, the EVPRP will notify the PI(s) that an internal competition will be unnecessary.

Internal deadlines: Contact EVPRPlimited@purdue.edu by March 7.

Sponsor deadline: May 31

Michael J. Fox Foundation The Michael J. Fox Foundation works tirelessly to accelerate promising research toward breakthroughs for Parkinson's patients. While our strong emphasis is on funding translational and clinical research, we also support high-risk/high-reward discovery work. Learn more about our priorities on our Research Strategy page.

In addition to funding, awardees benefit from working with our internal research staff and broad network of scientific and industry advisors.

Core funding programs: Target Advancement (novel targets, priority targets, lead pathway target), Therapeutic Development (disease-modifying, symptomatic, clinical ,and pre-clinical), and Outcome Measures (imaging agents, biomarker assay, clinical outcomes).

Pre-proposal deadline: May 18th, 2016

Upcoming Seminars for the Neurobiology Position in the Biology Department:

February 29, 2016
Scott Pluta
Seminar: 10:00 am
MJIS 1001
"The cortical representation of space: across layers and whiskers"

If you were unable to attend our Kickoff Meeting, please fill out the faculty survey here.

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