



Message from the Director

With Spring Break past us, it will soon be summer in West Lafayette. We have already begun planning some of our summer activities, most notably Dr. Chris Rochet will be teaching a graduate class aimed at working students through a multi-week process of crafting a proposal for the NRSA grant due in August, and I've heard rumors of a picnic for the graduate students. Summer provides us with a unique opportunity to focus on our research, all the while preparing for the year ahead. We'd be interested in hearing from you on a number of topics. If you have suggestions for summer activities, please email neuro@purdue.edu, or feel free to reach out to me. Additionally, we have recently updated our [graduate course listing](#) on the website (based on some wonderful input from our graduate students!). Keep the feedback coming!

- Donna Fekete, *Inaugural Director*

ANIMAL BEHAVIOR CORE - We need your input!!!

The Integrative Neuroscience Center is interested in launching an Animal Behavior Core. Please respond to [this survey](#) to ensure we are purchasing the necessary equipment.

The Integrative Neuroscience Center will offer a summer course aimed at assisting graduate students and post-doctoral fellows in the preparation of applications to the NIH for NRSA Individual Predoctoral or Postdoctoral Fellowships. Classes (organized by Dr. Chris Rochet) will be held once a week, 2 hours per week over a 5-week period spanning May 16 through June 18, and will consist of lecture-format presentations and intensive group discussions of written materials prepared by class participants.

The class schedule will be as follows:

Week 1: Discussion of best practices for developing NIH fellowship proposals using strategies such as those highlighted in various grant writing workshops.

Week 2: Critique of Specific Aims section prepared by class participants

Week 3: Critique of Significance and Innovation sections prepared by class participants

Weeks 4 and 5: Critique of Approach section prepared by class participants

Featured Faculty Member: Dr. [Zhongming Liu](#) joined Purdue in 2013 as a junior faculty member in Integrated Imaging Cluster. He is currently an assistant professor of biomedical engineering, and electrical and computer engineering. Despite his engineering background, he has developed deep interests in neuroscience since 2003. At Purdue, his research focuses primarily on developing engineering tools for imaging and decoding brain activity and connectivity in humans and rodents, while utilizing and leveraging both human and animal magnetic resonance imaging (MRI) facilities. Currently, his lab is pushing the resolution limit of non-invasive functional brain imaging by simultaneous neural imaging, recording, and stimulation. Progress has also been made in decoding brain activity observed with functional MRI to reconstruct naturalistic visual experiences, in collaboration with Drs. Eugenio Culurciello from the Weldon School of Biomedical Engineering and Gregory Francis from the Department of Psychological Sciences. Dr. Liu has been actively engaged in large-scale collaborative research across departments and colleges at Purdue. For example, he is contributing his MRI expertise to ambitious projects that aim to develop next-generation neuromodulation devices to treat inflammatory diseases and gastric disorders. These projects are built upon integrative team efforts led by Drs. Pedro Irazoqui from the Weldon School of Biomedical Engineering and Terry Powley from the Department of Psychological Sciences, and joined by Drs. Paul Robinson, Jenna Rickus, Zhongming Liu, and Matthew



Ward. Research in Dr. Liu's lab is actively supported by the National Institutes of Health, Defense Advanced Research Projects Agency, among others. If you'd like to learn more about Zhongming, please visit [his website](#).

Upcoming Events:

- On Friday, April 15th the 2016 Indiana Spinal Cord and Brain Injury Research Conference will take place in Indianapolis. The event will run from 8:00AM to 1:30PM. The Indiana Spinal Cord and Brain Injury Fund (ISCBIRF) is a state-supported program that funds research for the treatment and cure of spinal cord and traumatic brain injuries (TBI). For additional information and registration, visit [this site](#).
 - The Integrative Neuroscience Center will have a station in Lyles-Porter Hall at this year's Spring Fest on April 16th.
 - The Application of Molecular and Functional Imaging in Neurodegenerative Disease masterclass will be returning to London in 4 weeks time. Further information is available [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](#).
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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

[*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

[NIH Bioengineering Research Partnerships \(U01\)](#) This FOA encourages bioengineering applications that will accelerate the development and adoption of promising tools and technologies that can address important biomedical problems. The objectives are to establish these tools and technologies as robust, well-characterized solutions that fulfill an unmet need and are capable of enhancing our understanding of life science processes or the practice of medicine. Awards will focus on supporting multidisciplinary teams that apply an integrative, quantitative bioengineering approach to developing technologies, and engage biomedical researchers or clinicians throughout the project. Deadline: May 18

Postdoc Mini-Symposium:

The Integrative Neuroscience Center would love to see our Postdocs well represented at the 2016 Life Sciences Postdoc Mini-Symposium - details below.

The event will be Friday April 15, 2016 from 1-5 PM in MRGN

- (1) Fill out the attached revised Abstract Form.
- (2) Indicate on the Abstract Form your preference for poster only or poster and talk.
- (3) Convert the Abstract Form to a single page PDF.
- (4) Send your PDF to Kathy Anderson at kianders@purdue.edu by 5 PM Friday March 25, 2016.

A selection committee will review each abstract and make decisions regarding selection for oral presentations vs. poster presentations by Friday April 1, 2016.

Thank you for participating in this key event and for enhancing our overall postdoc program at Purdue.



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