PURDUE INSTITUTE FOR INTEGRATIVE NEUROSCIENCE

Where science meets engineering

Message from the John & Donna Krenicki Associate Director of Integrative Neuroscience:

Thank you very much for your active participation and contribution to the NeuroNetworking seminar series this summer as well as for contributing creative ideas during the strategic planning breakout session at the retreat. **On this week (June 28th) NeuroNetworking** event we concentrated on community building and strategic planning efforts, specifically as it relates to our graduate students and postdocs and we received great feedback from the community.

A few additional announcements:

1. **Cell Engineering Core Facility Survey**- the link below provides a short survey with information about the PIIN Cell Engineering Core Facility services which include the differentiation of induced pluripotent stem cells (iPSCs) into different types of neuronal and glial cells, and additional questions around interest and usage of the facilities. Please complete the following survey by July 14, 2017: Cell Engineering Core Facility Survey.
2. We will like to invite you to participate in a joint social event between PIIN and the PI4D Institutes. PIIN/PI4D will be hosting a **softball tournament on July 20th from 4-7 pm**. Please complete the following survey if you will like to participate by July 7, 2017: PIIN-PI4D Grad Event Survey.Additional details will follow. Be sure to add it to your calendars, it will be fun!
3. We encourage faculty members to nominate eligible graduate students for the **Linda and Jack Gill Graduate Student Award** which recognizes an outstanding graduate student in the Life Sciences. The deadline for application submissions is Wednesday, August the 30th. More information below.

You may be aware that we report monthly to the President's office. We want to highlight your experiences, achievements, presentations, and research. If you have something exciting, please share it with us.

- Chris Rochet

NeuroNetworking

We have had a great turn out the past two weeks, please join us for our next session where we will continue our strategic planning and feedback break-out sessions. We will be hosting Dr. Bharadwaj and Dr. Fernandez-Juricic in the July 5th event. Food will be provided.

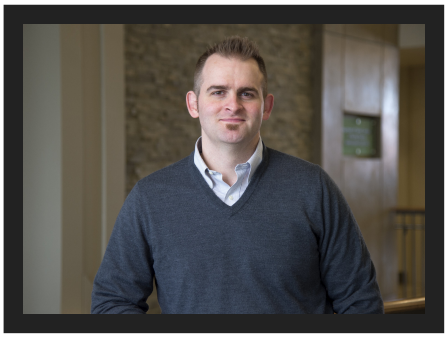
1160 LYLES

Wednesday, July 5th

Hari Bharadwaj (SLHS) "What can we learn about the circuitry of auditory scene analysis from autism spectrum disorders?"

Esteban Fernandez-Juricic (BIOL) “Vision in birds: novel opportunities to understand the evolution of visual systems in vertebrates”

Featured Faculty Member: Brandon Keehn



Brandon Keehn is an Assistant Professor, with a joint appointment in Speech, Language, and Hearing Sciences and Psychological Sciences. Prior to joining Purdue in 2014, Brandon received his Ph.D. from the San Diego State University / University of California, San Diego Joint Doctoral Program in Language and Communicative Disorders, and completed a postdoctoral fellowship at Boston Children’s Hospital and Harvard Medical School.

Dr. Keehn’s Attention and Neurodevelopmental Disorders (AtteND) Lab uses a multimodal (EEG, MRI, eye-tracking) approach to investigate attentional strengths and weaknesses and their neurofunctional underpinnings in individuals at-risk for or diagnosed with autism spectrum disorder (ASD). His research examines how early deficits in attention may contribute to the development of sociocommunicative impairments in children with ASD. Dr. Keehn’s work also explores areas where individuals with ASD excel relative to their typically developing peers. These areas of superior performance may provide a unique window onto atypical sensory and cognitive processes associated with ASD, and the associated differences in brain organization. To learn more feel free to visit his website.

RSVP for "NIH SBIR/STTR Lunch & Learn" 7/10

The State Program Director will provide an overview of the NIH Federal Program, 2017 program updates and information on how the State Program supports small businesses who are applying to the Federal Program for grant funding.

An experienced independent consultant and SBIR/STTR Program specialist will present on best practices in applying to the NIH, services available to Purdue Foundry clients for NIH application assistance and tips for submitting a successful application.

A question and answer period will follow the presentations. One-on-one, 20-minute consultation sessions will be available after the luncheon, 1:30-3:30pm. You must indicate below that you're interested in a consultation as they are only available by reservation. You will be contacted no later than July 6th regarding your assigned time slot.

Lunch will be provided by the Purdue Foundry. Limited seating is available.

Email questions to foundry@prf.org.

Join us for a luncheon and presentation on the NIH Federal SBIR/STTR Program and resources available from the State of Indiana and through the Purdue Foundry on Monday, July 10th at 11:30am-1:30pm at the Purdue Foundry, 1201 West State Street, West Lafayette, Indiana. This timely Lunch & Learn will prepare entrepreneurs for the upcoming NIH SBIR/STTR deadline on September 5, 2017.

Scientific American and the Alan Alda Center for Communicating Science at Stony Brook University Announce Online Writing Workshop for Scientists

Expert voices are needed more than ever in conversations of national and global importance. Scientists can help people understand the many ways that science shapes our lives and our understanding of the world-and, critically, their evidence-based findings and perspective can help in creating sound, scientifically informed public policy.

Scientific American and the Alan Alda Center for Communicating Science at Stony Brook University are teaming on an online workshop aimed at helping scientists and engineers write blogs and op-eds for magazines, newspapers and other news outlets. Presented in partnership with The Kavli Foundation, two dozen scientists will receive mentoring on writing over this fall and next spring, with successful assignments to be considered for publication as a *Scientific American* guest blog. The program will culminate with a special gathering in New York City in Fall 2018, where course participants will network with instructors, science communication experts and peers as well as staff from the Alda Center and *Scientific American*.

Free to scientists and engineers, participants will be selected competitively, with the application process opening today. For more information and to apply,
visit http://www.aldakavlilearningcenter.org.

"Science is a global enterprise, with an ambition-and ability-to address some of humanity's most challenging problems," said *Scientific American* Editor in Chief, Mariette DiChristina. "*Scientific American*, with more than 170 years of authoritative coverage about the progress of science often authored by the researchers themselves, is delighted to partner with the Alda Center and Kavli on this initiative to support scientists and science communication."

"When we help scientists to be more open, they begin to talk about their work in a deeply personal way. And people want to hear the personal stories behind the research. What happened in those

difficult moments in the small hours of the morning? That's the part we can connect to," said Alan Alda, founder of the Alan Alda Center for Communicating Science. "Our Alda Center team is excited to partner with Scientific American to develop a blogging course that will produce a new cohort of excellent science storytellers. I can't wait to see what they come up with."

"Promoting public understanding of science is central to the mission of The Kavli Foundation," said Robert Conn, President and CEO. "*Scientific American* has been a leader in helping the public understand and appreciate science for well over a century. Alan Alda is a star who is trusted by the public, and he has a deep passion about communications and science. This passion is reflected in the Alda Center for Communicating Science. We are simply delighted to join these two great organizations as they work to help scientists become the best communicators to the public of their own scientific work."

This online workshop and mentoring program will be a companion to a new and open web series to debut this fall that is co-produced by the three partners. During this 10-week public series, valuable insights into science writing and communication will be presented by the editors and writers at Scientific American, the Alda Center and a selection of special guest speakers. Program details for this series will be announced in September.
Scientific American is the longest continuously published magazine in the U.S., and has been bringing its readers unique insights about developments in science and technology for more than 170 years. The award-winning authoritative source for the science discoveries and technology innovations that matter, more than 150 Nobel laureates have written for *Scientific American*. It publishes in 14 local language editions and is read in more than 30 countries. *Scientific American*has 3.5 million print and tablet readers worldwide, 7.5 million global online unique visitors monthly, and a social media reach of 3.5+ million.

Established by renowned actor, writer, director and communication pioneer Alan Alda, the Alda Center for Communicating Science at Stony Brook University is leading the way to develop new and effective methods for training scientists to tell their stories and engage the public, policy makers, funders and others outside their own disciplines. Over 8,000 scientists around the world have been trained by the Center's instruction team. The Alda Method is grounded in improvisational theater, which inspires authenticity, connection and spontaneity rather than prescribed body language and tone of voice.
The Kavli Foundation is dedicated to advancing science for the benefit of humanity, and promoting increased public understanding and support for scientists and their work. The Foundation's mission is implemented through an international program of research institutes, professorships, symposia and other initiatives in the fields of astrophysics, nanoscience, neuroscience and theoretical physics. The Foundation also supports programs aimed at empowering the communication of science to the public, including the online Alda-Kavli Learning Center for Science Communication. It is also a founding partner of the international Kavli Prizes.

For more information, please contact:
Kate Fullam, Communications Manager
Alan Alda Center for Communicating Science
kathryn.fullam@stonybrook.edu

RFP's for Alzheimer's

http://www.alzdiscovery.org/research-and-grants/request-for-proposal

Request for Proposal: Accelerating Drug Discovery for Frontotemporal Degeneration

Alzheimer's Drug Discovery Foundation (ADDF)

Upper $150,000 Lower $100,000 - Awards provide 1 year of funding with the possibility of follow-on funding. Funding can range from $100,000-$150,000 per year for a preclinical project depending on the stage of research and must be

justified based on the scientific work plan.

Individuals: Early Career and Emerging in Field

Individuals: Mid-Career to Established in Field

The Association for Frontotemporal Degeneration and the Alzheimer's Drug Discovery Foundation announce a Request for Proposals to support innovative preclinical studies that advance FTD drug discovery. Research investigating the pathologic mechanisms underlying frontotemporal degeneration (FTD) is advancing, creating new targets for drug discovery. As potential therapies move forward, the need for biomarkers for early diagnosis, to distinguish FTD subtypes, and to monitor disease progression is also critical. The Alzheimer's Drug Discovery Foundation (ADDF) and The Association for Frontotemporal Degeneration (AFTD) seek to accelerate and support innovative drug discovery programs and biomarker development for FTD through this Request for Proposals (RFP).

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PRIORITY AREAS

- Development and testing of novel high throughput screening assays

- Identification and in vitro testing of potentially disease modifying compounds or biologics, including medicinal chemistry refinement, ADME, toxicology, pharmacokinetics, and pharmacodynamics studies

- Testing of novel lead compounds, biologics, or repurposed drug candidates in a relevant animal model for preclinical proof of concept

- Development and/or characterization of new model organisms or cellular models to support drug discovery efforts.

Applications will be accepted from investigators at non-profit academic institutions and for-profit biotechnology companies, both public and private, worldwide. Such as:

Academic investigators seeking to create and support innovative translational programs in academic medical centers and universities.

Biotechnology companies with programs dedicated to Alzheimer's disease translational development. New biotechnology company spinouts or existing biotechnology companies that demonstrate a clear need for non-profit funding are eligible to apply. Funding is provided through program-related investments (PRIs) that require return on investment based upon scientific and/or business milestones.

- 31 Jul 2017 - Letter of Intent
- 08 Sep 2017 - Full Proposal

Alzheimer's Drug Discovery Foundation (ADDF)

Clinical Trials for Frontotemporal Degeneration RFP

http://www.alzdiscovery.org/research-and-grants/funding-opportunities

Upper $2,000,000 Lower $500,000 -Budgets can be flexible and in the range of $500K to $2M for trials ranging from 1 -3 years. Leveraging other sources of funding or other ongoing trials is encouraged. Partnerships /co -funding with industry or other foundations is acceptable .

The Alzheimer's Drug Discovery Foundation (ADDF) and The Association for Frontotemporal Degeneration (AFTD) have launched the Treat Frontotemporal Degeneration (FTD) Fund to support clinical trials testing novel or repurposed drugs for FTD and related disorders (bvFTD, PPA, PSP, CBD, FTD/ALS). The Treat FTD Fund will build on recent successes of both foundations in early-stage drug discovery and biomarker development and leverages new ongoing efforts under development by AFTD such as the recently launched FTD Disorders Registry and a $5M FTD Biomarker Initiative. Running clinical trials in FTD patients will help investigators learn how best to target this unique patient population and will employ advances in biomarkers as they develop. This RFP is agnostic to drug target, open to both symptomatic and disease modifying approaches and includes both novel and repurposed therapies. Behavioral and social interventions as well as lifestyle modifications will not be considered.

- 18 Aug 2017 Letter of Intent
- 08 Sep 2017 Full Proposal
- 17 Nov 2017 Letter of Intent
- 08 Dec 2017 Full Proposal

CART Fund (Coins for Alzheimer's Research Trust)

CART Grants - http://www.cartfund.org/cart/applying-for-a-grant/

Upper $250,000 - Applications may encompass a project period of up to two years with a combined budget for direct cost up to $250,000. No indirect costs are allowed. At least one award up to $250,000 will be made each year.

Individuals: Early Career and Emerging in Field / Mid-Career to Established in Field

The purpose of the fund is to collect and provide dollars for leading edge research for the cure/prevention of Alzheimer's disease (AD). The goal of the fund is to encourage exploratory and developmental AD research projects within the United States. This is accomplished by providing financial support for the early and conceptual plans of those projects that may not yet be supported by extensive preliminary data but have the potential to substantially advance biomedical research. These projects should be distinct from those designed to increase knowledge in a well established area unless they intend to extend previous discoveries toward new directions or applications. This is for new projects only.

Eligible applications may come from full-time faculty (or equivalent status) at U.S.-based public and private institutions, such as universities, colleges, hospitals, and laboratories. Applications will be deemed ineligible from for-profit organizations and those outside of the USA, as well as those already supported by regular or program grants.

- 01 Dec 2017 Letter of Intent
- 22 Feb 2018 Application

TBI Summit Registration Information

It is hard to believe that the summit is only a little over a month away.

Don't miss you opportunity to participate in this dynamic event---register today! We expect to be at capacity, so reserve your spot by registering using the link below: (use the same link to nook your hotel)

https://www.regonline.com/5thannualTBIsummit

Summit Highlights:

- Hear and learn from leaders in TBI research and sports medicine
- CEUs available for ATCs
- Tremendous networking opportunity
- Poster sessions showing the work happening with our Big Ten and Ivy League colleagues
- Contribute to the dialogue regarding your research and best practices

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Gill Symposium

At this year's Gill Symposium, we will once again be presenting the "Linda and Jack Gill Graduate Student Award" to recognize an exceptional graduate student in the Life Sciences from IUB, IUPUI or Purdue. The details of the award and the nomination process are described in a letter that can be found at *http://www.indiana.edu/~gillctr/grAward.php*

New Instrumentation

The Bindley Bioscience Center Imaging Facility received EVPRP funding through the competitive Equipment Program to purchase an IncuCyte imaging platform for real-time live cell analysis. For more information regarding the instrument and its capabilities contact Andy Schaber (schaber@purdue.edu**).**

The IncuCyte S3 is a compact dual fluorescent and HD-phase contrast imaging microscope placed within a standard tissue culture incubator thus providing unparalleled environmental control. It has a rotating objective turret with 4x, 10x and 20x objectives that allow concurrently run experiments requiring different magnifications. The 2 fluorescent channels have the following bandpass excitation and emission wavelengths: Green: EX - 440nm-480nm, EM - 504nm-544nm and Red; EX 565nm-605nm, EM - 625nm-705nm. This semi-high content equipment enables multiple dish observation (up to 6 multi-well dish format vessels) and quantification of cell behavior over time by automatically gathering and analyzing images to generate decision making data in an "all in-one" format that is seamless from image acquisition to image analysis and to generation of statistically relevant data within one work-flow. Data acquired from the time points is used to generate movies and/or graphical data for quantitative measurements of multiple cellular applications. Among these applications, the IncuCyte S3 can automatically measure proliferation, apoptosis, viability, phagocytosis, cell migration, 3D spheroid growth, stem cell colony control and can detect fluorescently labeled proteins, ligands and reporter gene activation. Chief among the many applications is cell monitoring whereby the device enhances understanding of normal cell behaviors and the ability to recognize different or abnormal behaviors.

Foundation Grant Opportunity

American Society of Neuroradiology (ASNR)
The Foundation of the ASNR
Amount **$250,000 USD**

The ASNR anticipates funding multiple awards under this program. Applicants may request up to two years and $250,000 in total costs, inclusive of both direct and indirect costs. Exceptions for particularly unique projects will be considered, but requests that exceed $100,000 must be well justified in the Budget Justification section of the application. Budgets that exceed $100,000 require pre-approval by the Chairs of the Research committee prior to submission. Indirect costs may not exceed 10 percent of direct costs. For additional information please visit: http://www.theaftd.org/research/funding-opportunities

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Funding Opportunities

Opportunity	Award Amount	Deadline
NIH Advancing Our Understanding of the Brain Epitransciptome • ***R21*** • ***R01***	**Varies**	**June 2017**
** ***NIH-NINDS Neuroscience Development for Advancing the Careers of a Diverse Research Workforce (R25)***	**Varies**	**July 10, 2017**
Michael J. Fox Foundation for Parkinson's Research Inflammation Biomarkers for Parkinson's Disease	**Up to 300,000**	**August 4, 2017**

NIH Role of Myeloid Cells in Persistence and Eradication of HIV-1 Reservoirs from the Brain • ***R21*** • ***R01***	**Varies**	**August 7, 2017**
DOD-CDMRP Neurofibromatosis Research Program (NFRP)	**Varies**	**August 9, 2017**
American Hearing Research Foundation Research Program	**25,000**	**August 15, 2017**
****NIH Pre-application for a Biomedical Technology Research Resource (X02)***	**Varies**	**August 15, 2017**
** ***DOD-CDMRP Parkinson's Research Program (PRP)***	**Varies**	**August 31, 2017**
NSF Research in the Formation of Engineers (RFE)	**350,000**	**September 27, 2017**
NSF-Simons Research Centers for Mathematics of Complex Biological Systems (MathBioSys)	**15,000**	**September 29, 2017**
NIH Novel Cell Non-autonomous Mechanisms of Aging (R01)	**250,000**	**October 3, 2017**
NIH From Genomic Association to Causation: A Convergent Neuroscience Approach for Integrating Levels of Analysis to Delineate Brain Function in Neuropsychiatry • ***R01*** • ***Collaborative R01***	**Varies**	**October 5, 2017**
NIH Cellular and Molecular Biology of Complex Brain Disorders • ***R21*** • ***R01***	**Varies**	**October 16, 2017**
NIH Global Brain and Nervous System Disorders Research Across the Lifespan • ***R21*** • ***R01***	**125,000**	**November 7, 2017**
NIH Innovative Research in Cancer Nanotechnology (IRCN) (R01)	**450,000**	**November 21, 2017**

****Newly Added**

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