

NEURO NEWS

News from the Director: Richard Dorsky

Dear Members of the Interdepartmental Program in Neuroscience,

Welcome to a new academic year! This is a good time to congratulate all our recent graduates and say hello to our new student and faculty members. As I begin my term as director, I feel fortunate to have inherited a program that is running so well. There are many reasons for this success, including the outstanding leadership of our former director Kristen Keefe, the quality of our students and faculty, and of course the exceptional administrative support from Tracy Marble. I'm excited to have the opportunity to work with all of you, and to get a first-hand view of the neuroscience that is happening on campus.

My goal as director will be to continue our current trajectory, by maintaining our level of financial support and by active recruitment of outstanding students. In addition, over the next year I would like us to carefully review our existing curriculum. We will first evaluate the success of our courses and exams, with input from students and faculty. Together with the course directors, we will then generate specific proposals for curriculum revisions that will be made available for open discussion. I ask for everyone's assistance with this project, as we attempt to adapt to the current needs of students and plan for the future.

Truly, our success depends on everyone's participation in our missions of education, research, and outreach. While everyone is incredibly busy with multiple responsibilities, it is important to balance what each of us receives from the program with what we put back in. I encourage all program members to attend student talks and invited speaker seminars. Also, make time for our social activities, where you can interact with your colleagues, and consider participating in Brain Awareness Week. Our program is unique, in that we

encompass diverse departments and colleges while being unified by a common interest in neuroscience. Your continued support is always appreciated!

Best Regards,

Richard Dorsky
Program Director

****2014 Incoming Students****

Heidi Febinger, University of Washington
Danielle Giangrosso, Appalachian State University
Anne Marie Gibson, Indiana University; Bloomington
Jace King, University of Utah
Evan Ratzan, Hampshire College
Michelle Reed, University of Utah
Ana Santos, Rutgers University
Jonathan Sullivan, University of Alabama; Huntsville
Nancy William, Johns Hopkins University

****SEMINAR SERIES 2014-2015****

September 16: Kate Wassum, Ph.D., UCLA
November 18: Alysson R. Muotri, Ph.D., UCSD
January 20: Kimberly Huber, Ph.D., U TX Southwestern Medical Center
February 17: Maiken Nedergaard, M.D., D.M.Sc., U Rochester Medical Center
March 17: Mary M. Heinricher, Ph.D., OHSU
April 21: Edward M. Callaway, Ph.D., The Salk Institute

see more details at:
<http://neuroscience.med.utah.edu/Meetings.html>

****ACADEMIC DEFENSES****

Since the last issue of NeuroNews, the Neuroscience Program congratulates the following students on successfully defending their dissertations: **Caitlin Mencio (Balagurunathan lab)**, **Judd Cahoon (Ambati lab)**, **John Gaynes (Levine/Chien lab)**, **Randi Rawson (Jorgensen lab)**, **Shaili Johri (Letsou lab)**, and **Dan Ryskamp (Krizaj lab)**.

Also, since the last issue of NeuroNews, the Neuroscience Program congratulates the following students on successfully passing their qualifying exams: **Sarah Anderson (Vetter lab)**, **Jaycie Loewen (Wilcox lab)**, **Tony Umpierre (Wilcox lab)**, **Tyler Hanak (Brennan lab)** and **Punitha Subramaniam (Yurgelun-Todd lab)**.

and dissertation proposals; **Greg Remigio (White lab)**.

Patrick Gordon (Levine lab) will be defending his dissertation this fall, and has accepted a postdoc position with Dr. Sally Temple at the Neural Stem Cell Institute in Rensselaer, NY.

****STUDENT AWARDS****

Leo Parra (Jorgensen lab) has been selected as a University of Utah Graduate Research Fellow. This award covers \$15,000 of his stipend, tuition benefit and 80% of his health insurance.

Greg Remigio (West lab) received an American Foundation for Pharmaceutical Education Pre-Doctoral Fellowship.

Patrick Parker (Brennan lab) is the recipient of a NSF fellowship. This is a 3 year award and will cover his stipend as well as cost-of education allowance.

The Neuroscience Training Grant recipients for 2014-2015 are: **Kyle Jenks**, **Sasha Luks-Morgan**, **Andrew Moran** (2nd years) and **Heidi Febinger**, **Jace King**, **Ana Santos** (1st years).

****Brain Awareness News****

Occasionally the Brain Awareness Committee receives requests for outreach opportunities outside of the official Brain Awareness Week. In the past members of the committee itself have made up the majority of volunteers for these events. This year we would like to compile a list of individuals who are interested in being contacted as a possible volunteer for these outside events. If you would like to be added to this list please email us at neurobaw@gmail.com. Also, be sure to add us to your google circle for updates and other BAW related activities!

****BRAIN AWARENESS WEEK A SUCCESS****

In mid March, 2014, the Interdepartmental Program in Neuroscience organized an impactful Brain Awareness Week program to raise public awareness of brain health and research. Students, faculty, and staff brought interactive lessons to 1,500 K-12 students at six schools along the Wasatch Front. A one-day event at The Leonardo and an appearance by BAW chair **Judd Cahoon (Ambati lab)**, wielding the infamous fixed human brains, brought the message to an even broader audience (<http://www.good4utah.com/story/d/story/-/wVMVlFfhcE2SYXpyd81Xww>). We look forward to working with you to achieve another successful BAW in 2015.

****Other Important Dates****

Sept. 18: Neuroscience Program: Meet the New Students Reception
Jewish Community Center; 5-8PM

Oct. 24: Annual Neuroscience Program Symposium @ Snowbird
"Novel techniques and technologies: applications in elucidating the neural substrates of behavior"
<http://neuroscience.med.utah.edu/Snowbird>.

This year's invited speakers:
Loren L. Looger, Ph.D., Janelia Farm Research Group
Yasmin Hurd, Ph.D., Mt. Sinai SOM
Joseph F. Cheer, Ph.D.: University of Maryland SOM
Kristen A. Keefe, Ph.D., University of Utah
Adam Douglass, Ph.D., University of Utah

Nov. 15-19: The Society for Neuroscience Annual Meeting held this year in Washington, DC.

Feb. 13, 2015: Neuroscience Program Recruitment Week-end.

****Budget Cuts Endanger U.S. Role as World Leader in Biomedical Research****

Go to TheScopeRadio.com, University of Utah Health Sciences Radio, to listen to an interview with Wesley Sundquist, Ph.D., National Academies of Sciences member and professor of biochemistry, about an issue that weighs heavily on the mind of nearly every researcher. Federal funding for research and development has shrunk by 20% over the past three years, and biomedical researchers are feeling the strain. Sundquist describes how the cuts are impacting scientists, their work, and the U.S.'s status as a world leader in biomedical research and innovation. We encourage you to share the link with anyone you think should be aware of this serious issue.
http://healthcare.utah.edu/the-scope/shows.php?shows=0_3g2523tu

****ALUMNI NEWS****

Benedict Albensi has been appointed to Board of Directors -The Movement Centre of Manitoba. His NSERC grant was renewed for 5 yrs starting in April 2014. Also, his Chair and Everett Endowment Fund were renewed for 3 yrs in April 2014. In addition, in June 2014, he received another endowment from Mr. and Mrs. Edwards.

Arie Sitthichai Mobley is now Assistant Professor at Western New England University in Springfield, MA. Department of Neuroscience.

Tim Simeone: Simeone, T.A., Matthews, S.A., Samson, K.K., and Simeone, K.A. (2014) In vivo ketogenic diet treatment attenuates pathologic sharp waves and high frequency oscillations in in vitro hippocampal slices from epileptic Kv1.1alpha knockout mice. *Epilepsia* 55(5):e44-9. PMID: 24702645.

Dan Rykamp will be starting a postdoc with Ilya Bezprozvanny at UT Southwestern Medical Center in Dallas, Texas in October. I will study mechanisms of calcium dysregulation and synaptic instability in Huntington's and Alzheimer's disease.

Pengcheng Han: Han, P., Tang, Z., Yin, J., Maalouf, M., Beach, T.G., Reiman, E.M., and Shi, J. (2014) Pituitary adenylate cyclase-activating polypeptide protects against β -amyloid toxicity. *Neurobiol Aging*, Sep;35(9):2064-2071.

Han, P., Liang, W., Baxter, L.C., Yin, J., Tang, Z., Beach, T.G., Caselli, R.J., Reiman, E.M., and Shi, J. (2014) Pituitary adenylate cyclase-activating polypeptide is reduced in Alzheimer disease. *Neurology*, May 13;82(19):1724-1728.

Eli Iacob is a Post Doctoral Fellow at the Pain Research Center here at the U., Department of Anesthesiology. PI mentors are Akiko Okifuji, Gary Donaldson, and Yoshio Nakamura.

****Recruiting News****

Seeking student volunteers for alma mater visits

The Neuroscience Program will send advanced Neuroscience Program students to their alma mater schools this fall to present a research seminar and discuss our graduate program with undergraduate students. This is a great opportunity to promote our program and practice presenting a seminar. Expenses are covered by the program and include a \$200 honorarium to the student for their effort. Visits must be completed before Thanksgiving.

Please email Megan Williams (megan.williams@neuro.utah.edu) if you are interested in this opportunity. Provide your name and year, current faculty advisor, alma mater and seminar topic. Spots are limited, so please respond ASAP.

****FACULTY AWARDS****

Wolfgang Baehr, PhD, FARVO (BI) (Ophthalmology) was the recipient of the 2014 ARVO Achievement awards: Proctor Medal

Proctor and Friedenwald Awards are presented annually to recognize outstanding research in the basic or clinical sciences as applied to ophthalmology.

ARVO 2014 lecture: Membrane Protein Transport in Photoreceptors; Monday, May 5, 5:45 - 6:30pm

Baehr's work has impacted the understanding of phototransduction and remained a cornerstone of photoreceptor biochemistry. He pioneered the application of molecular biology to phototransduction research by employing newly discovered technologies to sequence cDNAs encoding the proteins. He has made significant contributions to the understanding of the basic biochemistry, molecular biology and genetics of photoreceptors, as well as the molecular and genetic mechanisms of retina diseases. Since 1968, Baehr has published more than 170 manuscripts, book chapters, reviews and editorials.

Rick Rabbitt, PhD, (Bioengineering) won the 2014 Halpiké-Nylén prize and medal awarded by the Bárány Society for "best vestibular research" on the 100th anniversary of Robert Bárány's Nobel Prize. The medal was presented in Buenos Aires. The society is headquartered in Uppsala.

****NEW FACULTY****

Since the last issue of NeuroNews we have added the following new faculty:

Alex Shcheglovitov, Ph.D., Assistant Professor of Neurobiology & Anatomy. Research: Development and function of human synapses in health and disease.

Sungjin Park, Ph.D., Assistant Professor of Neurobiology & Anatomy. Research: Characterizing the functional roles of a novel signaling pathway focusing on neuron-glia interactions using biochemical, pharmacological and genetic tools developed by Dr. Park.

****Spread the News About Your Work****

In these times of tight research funding, it's more important than ever to help the public understand the importance of basic research. The University of Utah Health Sciences Office of Public Affairs has four main platforms to help you get the word out (<http://healthcare.utah.edu/>): a press release, the Health Feed Blog, the Scope Radio, and Intercomm, a website for health sciences internal communications. Contact communications specialist Julie Kiefer at jkiefer@neuro.utah.edu for more information.

RECENTLY PUBLISHED

Butterfield, R., Stevenson, T.J., **Xing, L.**, Newcomb, T.M., Nelson, B.E., Zeng, W. et al. (2014) Congenital Lethal Motor Neuron Disease with a Novel Defect in Ribosome Biogenesis. *Neurology*, 82(15):1322-30. doi: 10.1212/WNL.0000000000000305).

Deering-Rice, C.E., Mitchell, V.K., Romero, E.G., Abdel Aziz, M.H., **Ryskamp, D.A.**, **Križaj, D.**, Venkat, R.G., and Reilly, C.A. (2014) Drofenine: a 2-APB analog with improved selectivity for human TRPV3. *Pharmacology Research & Perspectives*, 2(5).

Haack, A.K., Sheth, C., **Schwager, A.L.**, Sinclair, M.S., Tandon, S., and **Taha, S.** (2014) Lesions of the Lateral Habenula Increase Voluntary Ethanol Consumption and Operant Self-Administration, Block Yohimbine-Induced Reinstatement of Ethanol Seeking, and Attenuate Ethanol-Induced Conditioned Taste Aversion. *PLoS One* 9:e92701 Available at: <http://dx.plos.org/10.1371/journal.pone.0092701> [Accessed April 3, 2014].

Nguyen, T.T., Oh S.-S., Weaver, D., Lewandowska, A., Maxfield, D., Schuler, M.-H., Smith, N.K., Macfarlane, J., Saunders, G., Palmer, C.A., Debattisti, V., Koshiba, T., **Pulst, S.M.**, Feldman, E.L., Hajnóczky, G. and Shaw, J.M. (2014) Loss of Miro1-directed mitochondrial movement results in a novel murine model for neuron disease. *Proc Natl Acad Sci USA*, Aug 18. pii: 201402449. [Epub ahead of print]

Rawson, R.L., Yam, L., Weimer, R.M., **Bend, E.G.**, Hartweg, E., Horvitz, H.R., Clark, S.G., and **Jorgensen, E.M.** (2014) Axons degenerate in the absence of mitochondria in *C. elegans*. *Current Biology*, 24(7):760-765. PMID: 24631238

Schwager, A.L., **Haack, A.K.**, and **Taha, S.** (2014) Impaired flexibility in decision making in rats after administration of the pharmacological stressor yohimbine. *Psychopharmacology (Berl)*. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/24647923> [Accessed March 24, 2014]. PMID: 24647923

Xing, L., Quist, T.S., Stevenson, T.J., Dahlem, T.J., and **Bonkowsky, J.L.** (2014) Rapid and Efficient Zebrafish Genotyping Using PCR with High-resolution Melt Analysis. *J. Vis. Exp.*, (84), e51138, doi:10.3791/51138.

NEWS WORTHY

Markus Rothermel (postdoc, **Wachowiak lab**) received an Emmy-Noether Fellowship from the DFG, in Germany.

This very prestigious and competitive award provides five years of funding to begin his own research group in Germany.

Most Viewed PLOS Neuroscience Article Ever?

The answer is...AN EVALUATION OF THE LEFT-BRAIN VS. RIGHT-BRAIN HYPOTHESIS WITH RESTING STATE FUNCTIONAL CONNECTIVITY MAGNETIC RESONANCE IMAGING. An August 2013 research article from **Jared A. Nielsen**, Brandon A. Zielinski, Michael A. Ferguson, Janet E. Lainhart, and **Jeffrey S. Anderson** of the **Interdepartmental Program in Neuroscience, University of Utah, Salt Lake City, Utah**.

<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0071275>

The **Sharif Taha lab** hit the media with their alcohol addiction study: <http://www.healthline.com/health-news/lateral-habenula-responsible-for-alcoholism-040814>

<http://www.medicalnewstoday.com/articles/275025.php>

http://healthcare.utah.edu/publicaffairs/news/current/04-02-2014_alcohol_addiction_and_brain_study.php

*Do you have something to submit in the next issue of NeuroNews?
Send your information to: Tracy Marble, Program in Neuroscience
401 MREB, FAX: 581-4233, or e-mail: tracy.marble@hsc.utah.edu*