

NEURO NEWS

A letter from the Director, Mary T. Lucero, Ph.D.

Dear Neuroscience Students, Postdocs and Faculty,

This will be my last entry in NeuroNews as Program Director (I know many thought I was already done but my seven year term ends June 30, 2011). When I started as Director, my long term goals were to obtain enough financial resources to fully support students during the first two years of training, to improve student and faculty participation in Neuroscience-sponsored events, to formalize the Policy and Procedures so that students completed their qualifying exams by the end of their second year, to provide training information to new faculty mentors, and to make a program that is inclusive for neuroscientists at every level across the entire University. With the amazing dedication of Tracy Marble, the members of the Directorate, the chairs and members of committees, the course directors, participating faculty, and especially the enthusiasm of the neuroscience students, we have, as a program, achieved these goals. Future success, especially as budgets tighten and time constraints increase, will require all of us to continue to put energy into improving and strengthening the Neuroscience Program. The key is to remember that the Program encompasses what is fun and energizing about science: through training students we experience the discovery, dialogue, and flash of insight that comes with hard work and lots of luck. By serving on committees, participating in program functions and teaching, we can all take pride in making the Neuroscience Program at the University of Utah one of the top training programs in the country. My thanks to all of you for your contributions over these past seven years and my encouragement for supporting Dr. Kristen Keefe when she takes over in July.

Sincerely,
Mary Lucero, Ph.D.

FACULTY AWARDS/NEWS

Stefan Pulst and Daniel Scoles in the Department of Neurology were awarded a three-year RC4 grant for compound screening from the NIH entitled "Drug Discovery for Spinocerebellar Ataxia Type 2 (SCA2)".

Janet Lainhart and **Jeff Anderson** were awarded a three-year NIMH K08 mentored career development award. The purpose of this award is to further develop the research career of Jeffrey Anderson MD PhD, add longitudinal fMRI to the longitudinal MRI and DTI study of autism (MH080826, PI J. Lainhart), and to determine how the trajectory of early language development is related to current resting state functional connectivity and how longitudinal fcMRI connectivity is related to prospective language development in autism.

Links for media coverage on the manuscript in Autism Research referenced below:

- http://www.boston.com/news/health/blog/2010/12/brain_scan_for.html?p1=Well_MostPop_Emailed3
- <http://news.harvard.edu/gazette/story/2010/12/major-step-in-autism-testing/>
- <http://www.reuters.com/article/idUSTRE6B10Y420101202>
- <http://www.wbur.org/2010/12/02/autism-test> (NPR, Boston)
- https://sfari.org/news/-/asset_publisher/6Tog/content/flow-of-water-in-the-brain-fingers-autism
- <http://www.sciencedaily.com/releases/2010/12/101202124335.htm>

Links for media coverage on the manuscript in Cerebral Cortex referenced below:

- http://connect2utah.com/news-story?nxd_id=112455
- <http://www.ksl.com/?nid=148&sid=12798200>
- <http://www.deseretnews.com/article/700073202/MRI-may-be-diagnostic-tool-for-autism.html>

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NEW FACULTY

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

Bala Ambati, M.D., Ph.D., Associate Professor of Ophthalmology & Visual Sciences.

Research: Ocular Angiogenesis and Corneal Research.

Matt Wachowiak, Ph.D., Associate Professor of Physiology.

Research: The olfactory system as a model for understanding the neural basis of sensation during behavior.

K.C. Brennan, M.D., Assistant Professor of Neurology.

Research: Optical and electrophysiological investigation of cortical spreading depression as a mechanism in neurological disease.

Alla Borisyyuk, Ph.D., Assistant Professor of Mathematics.

Research: Applied Mathematics, Mathematical Biology, Computational Neuroscience

ALUMNI NEWS

Robert Renden has indicated that they are initiating a postdoctoral program within UCB (Pharma company in Belgium), with several positions open in the coming year, within the CNS biology section.

More information can be found at:

<http://www.ucb.com/rd/post-doctoral-programme>.

Benedict C. Albeni has been awarded the Everett Chair in Neuroscience (effective April 1st, 2011), a 3 year appointment to this chair (with potential renewal) that includes funding from a private donor, the Everett family. The Everett family owns the DOMO gasoline chain which is widespread throughout Canada.

STUDENT AWARDS

Christina Rossi (Dudek lab) has been awarded an Epilepsy Foundation Fellowship.

ACADEMIC DEFENSES

Since the last issue of NeuroNews, the Neuroscience Program has had the following students successfully defend their dissertation: **Kat Zukor (Odelberg lab)**, **James Anderson (Marc lab)**, and **Shushruth (Angelucci lab)**.

Since the last issue of NeuroNews, the Neuroscience Program has had the following students successfully pass their qualifying exam:

Kevin Breen (Vetter lab), and dissertation proposal; **Shaili Johri (Letsou lab)**, **Ryan Constantine (Baehr lab)**, **Eerik Elias (Maricq lab)**, **Andrea Schwager (Taha lab)**, and **James Tucker (Marc lab)**.

Important Dates

Feb. 18: Neuroscience Program Recruitment. Our annual reception devoted to recruiting student candidates for the upcoming academic year will be held at the Jewish Community Center, 2 North Medical Drive, Friday, February 18th from 5:00-9:00pm. There will be, *of course*, the usual amounts of food and drink.

March 15-21: National Brain Awareness Week. **Danielle Friend** and **Caitlin Mencio** are co-chairs of the committee this year.

May 12: Annual Neuroscience Student Symposium
Student organizer: **Daniel Ryskamp**

Oct. 21: Annual Snowbird Symposium

NEWS WORTHY

Cover Art: Stewart, K.A.A., Wilcox, K.S., Fujinami, R.S., and White, H.S. (2010) Development of Postinfection Epilepsy After Theiler's Virus Infection of C57BL/6 Mice. *Journal of Neuropathology & Experimental Neurology*, 69(12):1210-1219. (Cover art)



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*****Recently Published*****

Aman, A., Nguyen, M., and **Piotrowski, T.** (2010) Wnt/ β -catenin dependent cell proliferation underlies segmented lateral line morphogenesis. *Dev Biol*, Oct 23. [Epub ahead of print]

Anderson, J.S., Druzgal, T.J., Froehlich, A., **Dubray, M.B.**, Lange, N., Alexander, A.L., Abildskov, T., **Nielsen, J.A.**, Cariello, A.N., **Cooperrider, J.R.**, Bigler, E.D., and **Lainhart, J.E.** (2010) Decreased Interhemispheric Functional Connectivity in Autism. *Cereb Cortex*, Oct 12. [Epub ahead of print]

Ben Fredj, N., Hammond, S., Otsuna, H., **Chien, C.B.**, Burrone, J., and Meyer, M.P. (2010) Synaptic activity and activity-dependent competition regulates axon arbor maturation, growth arrest, and territory in the retinotectal projection. *Journal of Neuroscience*, 30:10939-10951. PMID: 20702722

Choi, J.H., **Law, M.Y.**, **Chien, C.B.**, Link, B.A., and Wong, R.O.L. (2010) In vivo development of dendritic orientation in wildtype and mislocalized retinal ganglion cells. *Neural Development*, 5:29. PMCID: PMC2988773.

Kastenhuber, E., Kern, U., **Bonkowsky, J.L.**, **Chien, C.B.**, Driever, W., and Schweitzer, J. (2009) Netrin-DCC, Robo-Slit, and heparan sulfate proteoglycans coordinate lateral positioning of longitudinal dopaminergic diencephalospinal axons. *Journal of Neuroscience*, 29:8914-8926.

Lange, N., **DuBray, M.B.**, Lee J.E., Froimowitz M.P., Froehlich A., Adluru N., Wright B., Ravichandran C., Fletcher P.T., Bigler E.D., Alexander A.L., and **Lainhart J.E.** (2010) Atypical diffusion tensor hemispheric asymmetry: a potential DTI biomarker for autism. *Autism Res*, 3(6): 350-358.

Pittman, A.J., **Gaynes, J.A.**, and **Chien, C.B.** (2010) nev (cyfip2) is required for retinal lamination and axon guidance in the zebrafish retinotectal system. *Developmental Biology*, 15:784-794. PMCID: PMC2914190.

Poulain, F.E., **Gaynes, J.A.**, **Stacher Hörndli, C.**, **Law, M.Y.**, and **Chien, C.B.** (2010) Analyzing retinal axon guidance in zebrafish. *Methods in Cell Biology*, 100:1-26.

Rathore, S.S.* , **Bend, E.G.***, Yu, H., Hammarlund, M., **Jorgensen, E.M.**, and Shen, J. (2010) Syntaxin N-terminal peptide motif is an initiation factor for the assembly of the SNARE–Sec1/Munc18 membrane fusion complex. *PNAS*, December 28; 107 (52).

Stewart, K.A.A., **Wilcox, K.S.**, **Fujinami, R.S.**, and **White, H.S.** (2010) Development of Postinfection Epilepsy After Theiler's Virus Infection of C57BL/6 Mice. *Journal of Neuropathology & Experimental Neurology*, 69(12):1210-1219. (Cover art)

Wan, Y.* , Otsuna* , H., **Chien, C.B.**, and Hansen, C. (2009) An interactive visualization tool for multi-channel confocal microscopy data in neurobiology research. *IEEE Transactions Visualization Computer Graphics*, 15:1489-1496. *equal contributions. PMCID: PMC2874972.

Wyatt, C., Ebert, A., Reimer, M., Rasband, K., Hardy, M., **Chien, C.B.**, Becker, T., and Becker, C. (2010) Analysis of the astray/robo2 zebrafish mutant reveals that degenerating tracts do not provide strong guidance cues for regenerating optic axons. *Journal of Neuroscience*, 30:13838-13849. PMID: 20943924.

Zukor, K.A., Kent, D.T., and **Odelberg, S.J.** (2010) Fluorescent whole-mount method for visualizing 3-dimensional relationships in intact and regenerating adult newt spinal cords. *Dev Dyn*, 239:3048.

Zukor, K.A., Kent, D.T., and **Odelberg, S.J.** Meningeal cells and glia establish a permissive environment for axon regeneration after spinal cord injury in newts. *Neural Dev.*, (in press)

Do you have something to submit in the next issue of NeuroNews?
Send your information to: Tracy Marble, Program in Neuroscience
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