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NEURO NEWS

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News from Admissions and Training Grant Update

ADMISSIONS:

The success of our admissions and recruitment activities is highly dependent on the help and enthusiasm of the current graduate students who are hosting the student candidates. This year, **Sean Flynn, Shushruth, Andrew Zayachkivsky, Andrea Schwager** and **Elliot Smith** will play a major role in hosting the student candidates.

Our committee members continue to be: **Bradley Greger** (Bioengineering), **Shannon Odelberg** (Neurobiology and Anatomy) and **Gary Rose** (Biology), **Alessandra Angelucci** (Ophthalmology and Visual Sciences), **Jeanne Frederick** (Ophthalmology and Visual Sciences), **Sabine Fuhrmann - Chair** (Ophthalmology and Visual Sciences) and **Ray Kesner** (Psychology).

This year our main admissions interview day will be Friday, February 15th and, as usual, there will be a reception at the Jewish Community Center, 2 North Medical Drive, on Friday evening from 6:00-9:00pm. Your participation at the reception is a crucial part for the success of all our admissions activities.

We will be soliciting support during the reception again with a poster session. Neuroscience students who have received travel support $$ from the Neuroscience Program will be asked to bring a poster (as part of the $$ received) and we will be asking for others to help out by bringing posters from their labs. This was very successful last year and we are excited to do this again this year.

This gives candidates insight into the research activities and interests of the faculty, postdocs and students involved in the Program. If you would like to present a poster this year, please, send an e-mail to Tracy Marble (tracy.marble@hsc.utah.edu).

Neuroscience NIH Training Grant Update:

We are in the middle of the second year of our T32 NIH Training Grant. Thus far, 12 students have been at least partially supported by the grant. Current trainees are providing a synopsis of their accomplishments for the annual progress report. The deadline for applications for year three (2008-2009) will be on Monday, May 5, 2008. An application form will be provided and selection will be based on academic performance, service to the Neuroscience Program, an abstract of proposed thesis work, and a letter of support from the faculty mentor. Future second year students who are selected for next year's Training Grant will TA one of our core neuroscience courses (Cell & Molecular Neuroscience, Neuroanatomy, or Systems Neuroscience). We will be looking forward to a strong group of applications.

****ALUMNI NEWS****

Ben Albensi (Filloux lab): University of Manitoba, has been awarded another grant:
Sept 2007 - August 2009. Regulation of adenosine levels. Canadian Institutes of Health Research (CIHR) Operating grant (coAp) $182,184.

His book chapter on seizure control, for the "Encyclopedia of Epilepsy" (Editor: Phil Schwartzkroin) has been approved. It should appear in late 2008 or 2009. Encyclopedia of Basic Epilepsy Research;
XV. Other Methods for Seizure Control; B. Electrical Stimulation

Robert Renden (Broadie lab): Renden, R., and von Gersdorff, H. (2007) Synaptic Vesicle Endocytosis at a CNS Nerve Terminal: Faster Kinetics at Physiological Temperatures and Increased Endocytotic Capacity During Maturation. *J Neurophysiol*, Dec 98:3349-3359.

Stefan Leutgeb (Mizumori lab): recently received ~$2.5M USD in funding from the European Research Council for a grant titled "Memory storage in distributed cell assemblies and its dysfunction in Alzheimer's disease".

Arie Sitthichai Mobley (Lucero lab): Mobley, A., Lucero, M., and Michel, W. (2008) A Cross-Species Comparison of Metabolite Profiles in Chemosensory Epithelia: an indication of metabolite roles in chemosensory cells. *Anatomical Record,* in press.

Pengcheng Han (Lucero lab): Han, P., Nakanishi, S.T., Tran, M.A., Whelan, P.J. (2007) Dopaminergic modulation of spinal neuronal excitability. *J.Neurosci.,* 27:13192-13204.

****Important Dates****

Feb. 15: 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 15th from 5:00-9:00pm. There will be, *of course*, the usual amounts of food and drink.

March 10-16: National Brain Awareness Week.
Detailed article next column.

April 23: Annual Student Symposium
Student organizer: **Shushruth**

October 24-25: Annual Snowbird Symposium.
Keynote Speaker: Our own 2007 Nobel Laureate Mario R. Capecchi.

****FACULTY AWARDS****

Kudos to **Dr. Mario R. Capecchi**, winner of the 2007 Nobel Prize in Physiology or Medicine for his pioneering work on gene targeting, work originally deemed "not worthy of pursuit" by NIH in 1980. The Nobel Prize tops an impressive list of awards that Dr. Capecchi has previously received, including the prestigious Albert Lasker Award for Basic Medical Research (2001) and the National Medal of Science (2001). A full list of Dr. Capecchi's awards and prizes can be seen on his web page (capecchi.genetics.utah.edu/capecchi.html) or his Wikipedia entry. Dr. Capecchi is a Distinguished Professor of genetics and biology, co-chair of the Department of Human Genetics and an investigator at the Howard Hughes Medical Institute. The full story of his journey from the streets of Italy to the Nobel Prize is described in the Winter 07-08 issue of Continuum.

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Mark Your Calendar for Brain Awareness Week 2008!!

The Neuroscience program's Brain Awareness Week Committee is enthusiastically preparing for March 10-16, National Brain Awareness Week. In conjunction with The Brain Institute, the Neuroscience Program's BAW Committee received funding from the Skaggs Research Institute to help promote educational activities in elementary, middle, and high schools and community centers throughout the Wasatch Front.

For those of you new to BAW, here's what we do: A couple members of the BAW committee and several volunteers visit schools and community centers with kid-friendly, age-appropriate activities that explore several different aspects of the human nervous system. Topics we cover include helmet safety, drug awareness, brain health, human and comparative anatomy, as well as higher education and career options in science.

Last year, we met with over 1,000 students over the course of the week! The kids loved it and we had a blast doing it! We are actively looking for volunteers for BAW 2008.

If you would like to help out in organizing this year's activities, it isn't too late to join the BAW committee! Just send an email to Randi at **randi.rawson@gmail.com**. We will also need volunteers for the school visits during the actual week of events. Please help us educate the Wasatch Front on the importance of brain safety and research. This is really a lot of fun so don't miss out!

Sincerely yours,
The Brain Awareness Week Committee

NEW FACULTY

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

Steve Bealer, Ph.D., Professor of Pharmacology & Toxicology. Research: Neurochemical and Neuroendocrine regulation of cardiovascular function.

John White, Ph.D., Utah Science Technology and Research (USTAR) Professor of Bioengineering.
Research: Neurophysiology, Computational Neuroscience, Design of Real-Time Instrumentation, Imaging of Neuronal Activity

Awais Riaz, M.D., Ph.D., Assistant Professor of Neurology.
Research: Epilepsy and general neurology.

Yingbin Fu, Ph.D., Assistant Professor of Ophthalmology and Visual Sciences.
Research: Signal transduction in rods and cones (the classical photoreceptors), as well as the intrinsically photosensitive retinal ganglion cells.

David Krizaj, Ph.D., Associate Professor of Ophthalmology and Visual Sciences.
Research: Calcium regulation and synaptic communication in the vertebrate retina.

****CURRICULUM COMMITTEE***

There have been a couple of changes to the Curriculum Committee. **Monica Vetter (Neurobiology & Anatomy)** has stepped down as chair as well as stepping away from the committee. **Franz Goller (Biology)** has stepped in as chairman of the committee, and **Tatjana Piotrowski (Neurobiology & Anatomy)** will take Monica's place as department representative on the committee. Much thanks to Monica for her hard work. During her tenure, the committee worked together to redesign the guidelines for the qualifying exam, and implemented curriculum guidelines for the MD/PhD students earning a PhD through the Neuroscience Program. The policies and procedures have been updated to reflect these changes: (http://neuroscience.med.utah.edu/Policies_Procedures2.html).

Welcome aboard Franz and Tatjana in your new appointments.

Current committee members: **Franz Goller (Biology), Tatjana Piotrwoski (Neurobiology and Anatomy), Alessandra Angelucci (Ophthalmology), Karen Wilcox (Pharmacology and Toxicology), Ed Dudek (Physiology),** and **Greg Clark (Bioengineering).**

ACADEMIC DEFENSES

Since the last issue of NeuroNews, the Neuroscience Program has had the following students successfully pass their dissertation proposal; **Crystal Sigulinsky (Levine lab)** and **Mei-Yee Law (Chien lab).**

*****POTPOURRI*****

Nuptials: Koji Takahashi (Wilcox lab) was married to Susan Pucci on September 29, 2007 in Healdsburg, California.
John Gaynes (Chien lab) was married on Jan. 4th, 2008 to Brooke Froelich. Congratulations!

Births: Ashley and **Eli Iacob** are happy to announce the birth of their baby boy, Asher Hamilton. Asher was born December 26th weighing 8 lbs 4 oz, and 21 inches in length.

****STUDENT AWARDS****

Kerry-Ann Stewart (White lab) was awarded the Epilepsy Foundation Predoctoral Award for $20,000 for 2008.

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

Cameron, D.J.*, Yang, Z.*, Gibbs, D.* (co-first author), Chen, H.*, Kaminoh, Y., Jorgensen, A., Zeng, J., Luo, L., Brinton, E., Brinton, G., Brand, J., Bernstein, P., Zabriskie, N., Tang, S., **Constantine, R.**, Tong, Z., and **Zhang, K.** (2007) HTRA1 variant confers similar risks to geographic atrophy and neovascular age-related macular degeneration, *Cell Cycle,* 6(9):1122-1125. *co-first author

Chen, H., Yang, Z., Gibbs, D., Yang, X., Hau, V., Zhao, P., Ma, X., Zeng, J., Luo, L., Pearson, E., **Constantine, R.**, Kamnioh, Y., Harmon, J., Tong, Z., Stratton, C.A., **Cameron, D.J.**, Tang, S., and **Zhang, K.** Association of HTRA1 Polymorphism and Bilaterality in Advanced Age-Related Macular Degeneration. *Vision Research*, in press.

Gibbs, D., Yang, Z., **Constantine, R.**, Ma, X., Yang, X., Chen, H., Jorgenson, A., Hau, V., DeWan, A., Zeng, J., Harmon, J., Buehler, J., Brand, J.M., Hoh, J., **Cameron, D.J.**, Dixit, M., Tong, Z., and **Zhang, K.** Further mapping of 10q26 supports strong association of HTRA1 polymorphisms with age-related macular degeneration. *Vision Research*, in press.

Guan, W., Wang, G.Y, **Scott, S.A.**, and **Condic, M.L.** (2008) Shh influences cell number and the distribution of neuronal subtypes in dorsal root ganglia. *Dev. Biol.,* in press.

Kirkman, N.J.*, Libbey, J.E.*, Sweeten, T.L., Coon, H.H., Miller, J.N., Stevenson, E.K., **Lainhart, J.E.**, McMahon, W.M., and **Fujinami, R.S.** (2007) How relevant are GFAP autoantibodies in autism and Tourette syndrome? *J. Autism Dev. Disord.*, epub ahead of print, June 20. (*equal contribution)

Kwan, K.M., Fujimoto, E., Grabher, C., Mangum, B.D., Hardy, M.E., Campbell, D.S., Parant, J.M., Yost, H.J., Kanki, J.P., and **Chien, C-B.** (2007) The Tol2kit: a multisite Gateway-based construction kit for Tol2 transposon transgenesis constructs. *Developmental Dynamics*, 236:3088-3099.

Navankasattusas, S.*, Whitehead, K.J.*, Suli, A., Sorensen, L.K., Lim, A.H., Zhao, J., Park, K.W., Wythe, J.E., Thomas, K.R., **Chien, C-B.**, and Li, D.Y. The netrin receptor, Unc5b, promotes angiogenesis in specific vascular beds. *Development*, in press. *These authors contributed equally.

Tanaka, C., Sakuma, R., Nakamura, T., Hamada, H., and **Saijoh, Y.** (2007) Long-range action of Nodal requires interaction with GDF1. *Genes & Development*, 21:3272–3282.

Teichert, R.W., Jimenez, E.C., **Twede, V.**, Watkins, M., Hollmann, M., Bulaj, G., **Olivera, B.M.** (2007) Novel Conantokins from Conus parius Venom Are Specific Antagonists of N-Methyl-D-aspartate Receptors. *J Biol Chem.,* Dec 21;282(51):36905-36913.

Tsunoda, I., Libbey, J.E., and **Fujinami, R.S.** (2007) Sequential polymicrobial infections lead to CNS inflammatory disease: Possible involvement of bystander activation in heterologous immunity. *J. Neuroimmunol.,* 188(1-2)22-33.

Tsunoda, I., Libbey, J.E., and **Fujinami, R.S.** (2007) TGF-1 suppresses T cell infiltration and VP2 puff B mutation enhances apoptosis in acute polioencephalitis induced by Theiler's virus. *J. Neuroimmunol.,* 190(1-2):80-89.

Tsunoda, I., Tanaka, T., **Saijoh, Y.**, and **Fujinami, R.S.** (2007) Targeting inflammatory demyelinating lesions to sites of Wallerian degeneration. *Am. J. Pathol.,* 171(5):1563-1575.

Wu, Y., Wang, G.Y., **Scott, S.A.**, and **Capecchi, M.R.** (2008) Hoxc10 and d10 regulate mouse columnar, divisional and motor pool identity of lumbar motoneurons. *Development*, 135:171-182.

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

MAIL TO: