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NEURO NEWS

SPRING 2006

Growing the Neuroscience Graduate Program in 2006

Our admissions and recruiting activities were highly successful last year and we were pleased to welcome 9 excellent students into the Neuroscience Program in Fall 2005. They are: **Michael Abanto** (Tufts University), **James Anderson** (Western Washington University), **Pei-Wen Chu** (National Taiwan University), **Samantha Covington** (University of Hawaii), **Danielle Downey** (University of Minnesota, Simon Fraser University), **Molly DuBray** (University of the South, Wake Forest University), **Sarah Farnsworth** (Weber State University), **John Hone** (University of Utah), and **Linda Kübler** (University of Würzburg). Over 90 completed applications were received and reviewed by the Admissions Committee last year (36 domestic and 57 international). We interviewed 21 candidates in person. I hope that we will continue to build and grow our graduate student population with a successful admissions venture in 2006.

The success of our admissions and recruitment activities is reliant upon the contributions of many people. The current students (organized last year by **Eric Veien** and **Koji Takahashi**) play a major role in hosting the student candidates. The enthusiasm of our graduate students is a key ingredient in helping to bring new recruits into the Program. During the scheduled morning interviews we also run a poster session which has proved to be an excellent showcase for the energy and diverse research interests of faculty, postdocs and students involved in the Program. It is a great opportunity to meet and recruit students. If you have a poster that you would like to present this year then please send an e-mail to Tracy Marble (tracy.marble@hsc.utah.edu.

Last year the admissions committee was comprised of the following 8 members: **Bruce Bamber** (Pharmacology and Toxicology), **Richard Dorsky** (Neurobiology and Anatomy), **Kevin Flanigan** (Neurology), **Jeanne Frederick** (Ophthalmology and Visual Sciences), **Sabine Fuhrmann** (Ophthalmology and Visual Sciences), **Ray Kesner** (Psychology), **Qiang Wu** (Human Genetics), and **Neil Vickers - Chair** (Biology). This year **Alessandra Angelucci** (Ophthalmology and Visual Sciences) and **Kristen Keefe** (Pharmacology and Toxiciology) return to the committee after a year off and Qiang Wu leaves with thanks for his valuable service. Sabine Fuhrmann will act as committee co-chair this year. As always the wheels of our recruitment activities would not turn without the invaluable skills of our Program Coordinator, **Tracy Marble**.

This year our main admissions interview day will be **Friday 24th February**. There will be a reception at the JCC on Friday evening. The success of all our admissions activities is reliant upon your participation and I encourage you all to attend.

Neil Vickers and Sabine Fuhrmann,
Admissions Committee co-Chairs

****ALUMNI NEWS****

DND scientists receive CFI funding
November 7, 2005- Winnipeg

Division of Neurodegenerative Disorders' scientists receive an estimated $1,000,000 in grant funding from the Canadian Foundation for Innovation, Province of Manitoba, and St. Boniface Research Foundation.

Congratulations to DND scientists Drs. **Ben Albensi**, Chris Anderson, Paul Fernyhough (Department of Pharmacology & Therapeutics, Faculty of Medicine, University of Manitoba) and Hope Anderson (National Centre for Agri-Food Research and Medicine; Faculty of Pharmacy, University of Manitoba) who were awarded grant funding of $400,000 through CFI's On-Going New Opportunities Fund. These funds will provide an exciting opportunity for the establishment of a state-of-the-art integrated tissue imaging facility to be located here within the Division of Neurodegenerative Disorders at the St. Boniface Hospital Research Centre. Dedicated towards research on neurodegenerative and vascular disorders, the facility will house a two-photon brain slice imaging system integrated with patch clamp electrophysiology - the first available within Manitoba.

Grant projects funded through the On-Going New Opportunities Funds receive additional funding both provincially and locally, making the total value of this project worth an estimated $1,000,000.

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Jie Zhang is currently working as an Associate Director in Corgentech Inc, an public biopharm company located in south San Francisco. He has been working there for almost 4 years.

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Sharon Cahoon-Metzger (and husband **Ryan Metzger**) have moved back tot he Salt Lake area. Sharon was able to get a transfer with the company she works for, Sanofi-Aventis Pharmaceuticals and now covers Utah, Colorado and Nevada--supporting products in the respiratory, infectious disease and CNS therapeutic areas.

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Matt Schmolesky continues his second year in as a AAAS Diplomacy Fellow, and joined the Office of the Science and Technology Advisor to the Secretary of State (that's STAS for short) on Sept. 1. He has traveled to Munich to attend a meeting on quantum computing and coherence as part of aninitiative my office created - the Global Dialogue on Emerging Science and Technology (GDEST). To Beijing in March for a GDEST on genomic techniques to track, prepare for and combat infectious disease, and in Luca, Italy in April for a nanotech meeting.

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Mary Logan has started her post-doc in the Neurobiology Department at UMass Medical School. (see publications on page 4)

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Pengcheng Han will be going to Hotchkiss Brain Institute, University of Calgary, Canada as a postdoctoral fellow. He will be working in Dr.Patrick Whelan's lab on motor neuron electrophysiology, starting in late Jan.

ALUMNI NEWS CONTINUED:

Polly Dhond is a Harvard fellowworking at the Martinos Imaging Center. She is continuing neuroimaging field and learning more about somatosensory processing and using fMRI techniques. She is also heading the MEG portion of the same investigations.

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Peter J. West has received a Postdoctoral fellowship from the Epilepsy foundation: "Mediation and modulation of synaptic transmission by kainate receptors of the medial entorhinal cortex"

****Important Dates****

Feb. 24: Neuroscience 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 24th from 6:00-9:00pm. There will be, *of course*, the usual amounts of food and drink.

March 13-19: National Brain Awareness Week.
National Brain Awareness Week this year falls on March 13-19. After an incredibly successful Brain Awareness Week in 2005, we are very excited about this year as we continue to improve and expand. We have partnered with the Brain Institute and, with their help, are working to dramatically increase our activities. Last year we set a goal to reach further out in the community and target underprivileged schools, shelters for children and their mothers escaping abuse, and after-school programs. We plan to reach out even further this year and double our impact to the community. However, in order to make that happen, we still are completely reliant on volunteers from the neuroscience community. We will need as many volunteers as possible to make these visits and increase our impact. Please mark the date on your calendar and plan to participate in BAW this year. Most of our visits occur in 2-4 hour blocks during the day and will be occurring morning, afternoon, and evening; so there are volunteer opportunities for everyone regardless of your schedule.

If you have any questions about our program or if you would like to volunteer now, please contact any one of the members of the Brain Awareness Committee. Thank you for your continued participation in this event.

Peter Westenskow
Meghan Jobson
Christine Fogarty
Liang Qiao
Eric Veien
Sarah Farnsworth

****POSTDOC POSITION****
SANGUINETTI LAB

Posdoctoral position available to study biophysical and structural basis of pacemaker channel gating. Requires interest in biophysics; experience in voltage clamp techniques desirable. Standard NIH postdoctorl salary.

Contact: **Mike Sanguinetti (sanguinetti@cvrti.utah.edu)**

ACADEMIC DEFENSES

Since the last issue of NeuroNews, the Neuroscience Program has had another student successfully defend his dissertation; **Pengcheng Han (Lucero lab)**.

Koji Takahashi (Wilcox/Marc labs) has successfully passed his Qualifying Exams. **Liang Qiao(White lab)** and **Renee Esser (Keefe lab)** have successfully passed their dissertation proposals.

*****AWARDS*****

Kerry-Ann Stewart (**White lab**) recieved the Bob & Joyce Rice Fellowship, which is $25,000 for one year.

*****POTPOURRI*****

Congratulations to **David Daberkow** and his new bride Tiffany for tying the knot on December 16, 2005 in Jackson, MS.

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

Dhond, R. P., Witzel, T., Dale, A. M., and Halgren, E. (2005) Spatiotemporal brain maps of delayed word repetition and recognition. *Neuroimage*, Nov 1;28(2):293-304.

Han, P. and **Lucero, M. T.** (2005) PACAP reduces A-type K+ currents and caspase activity in cultured adult mouse olfactory neurons. *Neuroscience*, 134:745-756.

Han, P., and **Lucero, M. T.** (2005) Pituitary adenylate cyclase activating polypeptide reduces A-type K+ currents and caspase activity in cultured adult mouse olfactory neurons. *Neuroscience*, 134(3):745-756.

Hegg, C. C. and **Lucero, M. T.** (2005) Purinergic receptor antagonists inhibit odorant-induced heat shock protein 25 induction in mouse olfactory epithelium. *Glia,* 53(2):182-190.

Hillier, N. K., Kleineidam, C., and **Vickers, N. J.** (2005) Physiology and glomerular projections of olfactory receptor neurons on the antenna of female *Heliothis virescens* (Lepidoptera: Noctuidae) responsive to behaviorally relevant odors. For: *Journal of Comparative Physiology A.* (published on-line: 25 Oct. 2005).

Hutcheson, D. A., Hanson, M. I., **Moore, K. B.**, Le, T. T., Brown, N. L., and **Vetter, M. L.** (2005) bHLH-dependent and -independent modes of Ath5 gene regulation during retinal development. *Development,* Feb;132(4):829-839.

RECENT PUBLICATIONS CONTINUED:

Karan, G., Yang, Z., Howes, K., Zhao, Y., Chen, Y., **Cameron, D. J.**, Lin, Y., Pearson, E., and **Zhang, K.**, (2005) Loss of ER retention and sequestration of the wild-type ELOVL4 by Stargardt disease dominant negative mutants. *Molecular Vision,* Aug 30;11:657-664.

Lamason, R. L., Mohideen, M. A., Mest, J. R., Wong, A. C., Norton, H. L., Aros, M. C., **Jurynec, M. J.**, Mao, X., Humphreville, V. R., Humbert, J. E., Sinha, S., Moore, J. L., Jagadeeswaran, P., Zhao, W., Ning, G., Makalowska, I., McKeigue, P. M., O'donnell, D., Kittles, R., Parra, E. J., Mangini, N. J., **Grunwald, D. J.**, Shriver, M. D., Canfield, V. A., Cheng, K. C. (2005) SLC24A5, a putative cation exchanger, affects pigmentation in zebrafish and humans. Science, Dec 16;310(5755):1782-1786.

Lee, H. S., Bong, Y. S., **Moore, K. B.**, Soria, K., Moody, S. A., and Daar, I. O. (2005) Dishevelled mediates ephrinB1 signalling in the eye field through the planar cell polarity pathway. *Nat Cell Biol.,* Dec 18.

Logan, M. A., Steele, M. R., and **Vetter, M. L.** (2005) Expression of synaptic vesicle two-related protein SVOP in the developing nervous system of *Xenopus laevis. Dev Dyn.,* Nov;234(3):802-807.

Logan, M. A., Steele, M. R., **Van Raay, T. J.**, and **Vetter, M. L.** (2005) Identification of shared transcriptional targets for the proneural bHLH factors Xath5 and XNeuroD. *Dev Biol.,* Sep 15;285(2):570-583.

Logan, M. A., and **Vetter, M. L.** (2004) Do-it-yourself tiling: dendritic growth in the absence of homotypic contacts. *Neuron*, Aug 19;43(4):439-440.

Norman, K., Fazzio, R., **Mellem, J.**, Espelt, M., Strange, K., Beckerle, M., and **Maricq, A.** (2005) The Rho/Rac-Family Guanine Nucleotide Exchange Factor VAV-1 Regulates Rhythmic Behaviors in *C. elegans. Cell*, 123(1):119-132.

Otto, J., Yang, Y., Frankel, W. N., **White, H. S.**, **Wilcox, K.** (2006) A Spontaneous Mutation Involving Kcnq2 (Kv7.2) Reduces M Current Density and Spike Frequency Adaptation in Mouse CA1 Neurons. *Journal of Neuroscience,* (in press).

Simeone, T., Wilcox, K., and **White, H. S.** (2006) Subunit Selectivity of Topiramate Modulation of Heteromeric GABAA Receptors. *Journal of Neuroscience*, (in press).

Tsunoda, I., Kuang, L-Q., Kobayashi-Warren, M., and **Fujinami, R. S.** (2005) Central nervous system pathology caused by autoreactive CD8+ T cell clones following virus infection. *J. Virol.,* 79(23):14640-14646.

Tsunoda, I., Libbey, J. E., Kuang, L-Q., Terry, E. J., and **Fujinami, R. S.** (2005) Massive apoptosis in lymphoid organs is animal models for primary and secondary progressive multiple sclerosis. *Am. J. Pathol.* 167(6):1631-1646.

Uchino, B. N., Holt-Lunstad, J., Bloor, L. E. and Campo, R. A. (2005) Aging and cardiovascular reactivity to stress: Longitudinal evidence for changes in stress reactivity. *Psychology and Aging*, 20:134-143.

Van Raay, T. J., **Moore, K. B.,** Iordanova, I., Steele, M., Jamrich, M., Harris, W. A., and **Vetter, M. L.**. (2005) Frizzled 5 signaling governs the neural potential of progenitors in the developing *Xenopus* retina. *Neuron*, Apr 7;46(1):23-36.

Vickers, N. J., Poole, K., and Linn, Jr., C. E. (2005) Plasticity in central olfactory processing and pheromone blend discrimination following inter-species antennal imaginal disc transplantation. *Journal of Comparative Neurology,* 491:141-156.

Vogalis, F., Hegg, C. C., and Lucero, M. T. (2005) Ionic conductances in sustentacular cells of the mouse olfactory epithelium. J. Physiol., 562:785-799.

Vogalis, F., Hegg, C. C., and Lucero, M. T. (2005) Electrical coupling in sustentacular cells in the mouse olfactory epithelium. J. Neurophys., 94:1001-1012.

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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MAIL TO: