

# GRADUATE STUDIES IN NEUROSCIENCE NEWSLETTER

SUMMER 2009

## Notes from the NSC Cluster Director

As we recharge during the beautiful Rochester summer there is time to reflect on the year past and consider changes for the upcoming academic year. The graduate program distributed a brief questionnaire to faculty several months ago and we are now working out ways in which to improve our program based in part on these responses. One thing that became clear in faculty responses was that many participants in the program are unaware of the structure of the NSC graduate program, the nature of the core curriculum, and the requirements of the two degree granting programs that NSC cluster students traditionally select (Yes, there are two. Our students generally choose either the Interdepartmental Graduate Program in Neuroscience – IGPN, or the Neurobiology and Anatomy Graduate Program - NBA).

There are several sources of information about the Graduate Program. The first is the NSC Cluster website (<http://www.urmc.rochester.edu/neuroscience/grad/>). Here you will find up to date news about NSC-related faculty and students, lists of mentor-eligible and program-affiliated faculty, and a list of students. In addition, using a PubMed search routine (thanks Owen!) we list recent faculty and student publications (if you do not see your current publications on the list please contact Ania Dworzanski and she will let you know how to proceed). Information about the program, available lab rotations for first year students, and more can also be found here.

The Program also has a new Facebook page (facebook savants can find us by searching for "University of Rochester Graduate Program in Neuroscience"). You can get notices about upcoming events, see pictures from Program activities, upload lab photos, and do other 'facebook-y' things. This is a work-in-progress and will develop as the community begins to contribute. Join our online community: Become a Fan! (For faculty only: Don't know how to use Facebook? Ask your kids! Or any graduate student – they ALL know.)

Consistent with ongoing upgrades to the look of URM on the web, the Program website will be undergoing a facelift. Many thanks to Owen Zacharias for implementing the required changes and for fighting to keep our unique content. Check in over the coming weeks and months to see our new look.

As always, we look forward to another productive year and an excellent incoming class. Some are already here on campus and the others will arrive in late August. Please welcome them (check Facebook for pictures as we get them) if you see them (see the list below).

Enjoy the rest of the Summer!

Ed Freedman (NSC Cluster Director)



## Entering Class 2009 - PhD Students

This year 75 applicants (47 domestic and 28 international) submitted their applications to the PhD Program in Neuroscience. The Admissions Committee invited 17 applicants for the interview weekend. Most of the applicants could not attend the first interview weekend. Therefore, the Neuroscience Program participated in the second interview weekend, March 6-8. Three international and two domestic applicants accepted our offers. We have also 3 MD/PhD students. Take a look at who they are.



**Revathi Balasubramanian** has completed her master's degree in the Department of Biomedical Engineering at the University of Rochester. Revathi comes from Bangalore, India. She did her undergraduate study at Rashtreeya Vidyalaya College.



**Shiona Biswas** comes to the U of R from Kolkata, India. Shiona earned a BSc degree from the University of Mumbai in Life Science/Biochemistry, and MSc in Biochemistry from Maharaja Sayajirao University. She is interested in cell lineage commitment and cell fate specification, as well as development, and plasticity of the visual cortex during the postnatal period.

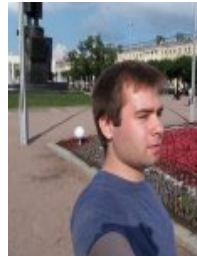


**Wei Sun** comes from Shenyang, China, where she received a MD degree from the China Medical University. Wei says, "after five years of studying medicine including, one year of clinical internship, I realized that no cure exists for most major diseases, including neurodegenerative diseases. I became increasingly interested in understanding the pathogenesis of the underlying neuronal loss seen in diseases such as Alzheimer's disease, and amyotrophic sclerosis." Wei realized that she needs to be trained as a scientist "to explore the underlying mechanisms that control disease progression."

## Entering Class 2009 - PhD Students



**Rachael Harms** comes from Riverside, Ca. In June 2009, she graduated with a B.A. degree in Neuroscience from the University of California at Santa Cruz. Rachael began her college career as a film major but after taking a Psychobiology class, she fell in love with Neuroscience. For the last 16 months Rachael worked with Prof. Switkes. She assisted in research on distinctions between early- and mid-level visual processes and temporal effects on correlation of spatial information.



**Adam Pallus** was born in Poughkeepsie, NY. In 2005, he graduated from Union College in Schenectady with a BS degree in Biology and Math. Since then, he has been working on programming computer models and carrying out animal behavior studies in Union College's new Center for Bioengineering and Computational Biology. He wants to extend his studies through classroom and collaborative work.

## MD/PhD Students



**Philip Rappold** graduated from Cornell University in 2004 with a BS degree in Human Development Studies. After graduation he worked in an epilepsy research laboratory as a technician at the UR Medical Center. He has been a volunteer fire fighter and EMT at Bushnell's Basin since August 2000. In 2005 he began working part-time at the Rochester Kaplan Center as an MCAT teacher.



**Danielle DeCampo** received her BS degree from the University of Notre-Dame (2004) in pre-professional Psychology and master's degree from Syracuse University (2006) in Biomedical Engineering. Danielle was a Graduate Catholic community president, community volunteer, and translator. She worked in a Neurological Physiology Research lab, volunteered at AIDS hospice, and the Children's Hospital. She is an athlete and a musician.



Ethan Winkler in 2006 graduated from the University of Southern California with a BA degree in Neuroscience. Ethan wears several hats. He was a research assistant, assistant coach for ice hockey, ambulance ride-along, private tutor, and retail sales representative. Ethan says that his grandmother laid the foundation for him to become a doctor.



**Youngsun Cho**

Youngsun Cho and Helen Wei joined the NBA Department as MD/MS students in 2008. Both of them were accepted to continue as PhD students.

Congratulations!



**Helen Wei**

## Milestones - Summer 2009

### THESIS PROPOSAL

Youngsun Cho, "Dopaminergic Inputs to the Primate Amygdala"

Michael Pesavento, "Interactions between Neuron- and Network-based Processing in Neocortical Circuits"

Simantini Ghosh, "The effect of sustained overexpression of Interleukin 1 beta on pathology and behavior in a mouse model of tauopathy"

Crystal McClain, "Modulation of Wnt signaling in glial progenitor cells by pleiotrophin and its receptor, receptor protein tyrosine phosphatase Beta/Zeta (RPTP Beta Zeta, PTPRZ1)"

Zhuoxun Chen, "Identification of molecular determinants of androgen-regulated angiogenesis and neurogenesis in adult songbirds"

### PhD THESIS DEFENSES

Kyung Hwa Lee (PhD), "Sex Differences in a *C. elegans* Sensory Behavior"

Dirte Lovatt (PhD), "The Transcriptional Basis of Astrocytic Physiology in situ"

Aaron Cecala (PhD), "Head-Unrestrained Primate Gaze Adaptation"

Carolyn Tyler (PhD), "Suppression of TrkA signaling in sympathetic neurons using the TrkAF592A chemical-genetic mouse: an examination of the effects on apoptosis and maturation"

Sarita Kishore (PhD), "The Attentional Modulation of Navigational Cue Integration by Cortical Neurons"

### UPCOMING PhD THESIS DEFENSES

Qi Cui, "Cross-sensory Plasticity and Integration in Human Audio-visual Spatial Processing"

Bernard Gee, "Do retinal parallel processing streams play different roles in visual search?"

### AWARDS

Nancy Ann Oberheim Bush, PhD, received the Vincent du Vigneaud Award for 2009

Maria Diehl, PhD student won a travel fellowship to attend the 10th International Multisensory Research Forum in New York City

Yasser Elshatory, PhD Doty Award for excellence in Neuroscience Dissertation Research

Katherine Selzler, PhD student won 1st place for Poster Award during 2009 Neuroscience Retreat

William Mowrey, PhD student won 2nd place for Poster Award during 2009 Neuroscience Retreat