Executive Committee Review

Megan Lyle, Executive Committee Student Representative

The new year is off to a busy start. Plans for recruitment have been made and interviews offered. We’re looking forward to entertaining a great group of candidates from across the globe. Eileen Kessler and Becky Roffman have some exciting new activities planned, including a brunch on Saturday morning. We hope everyone in the program will contribute to make the weekends a great success!

We’d also like to offer a warm welcome the Neuroscience Program’s newest faculty additions: Shan Ping Yu (Anesthesiology), Ling Wei (Anesthesiology), Ellen Hess (Pharmacology), Hyder Jinnah (Neurology), Ying Guo (Biostatistics), Opal Ousley (Psychiatry), James Zheng (Cell Biology).

Greg Berns (Psychiatry) and Mary Horton (MD/PhD program) are leading the development of the “Scholars Program in Interdisciplinary Neuroscience Research- SPRINR” supported by the Neuroscience Initiative. The program is open to students from any graduate program, but scholars must develop a research project that combines neuroscience with at least one other discipline. The program aims to “challenge outstanding trainees to develop innovative and interdisciplinary research projects that transcend conventional disciplinary divides and blend Neuroscience with various disciplines across Emory University.” This effort will undoubtedly open new avenues of research and inquiry. Those seeking more information should contact Greg (gberns@emory.edu) or Mary (mhorton@emory.edu).

The Curriculum Committee will meet in February to review the status of the Grant-writing class. This year, the course was offered in the fall of the second year. Students have expressed strong opinions (both positive and negative) about the timing of the course. The committee will review these comments while comparing the pros and cons of offering the course in the spring versus fall of the second year.

Andy Jenkins and Tamara Caspary are busy making improvements to the Introductory Seminar course. Any comments about the curriculum and its development can be directed to Stefanie Ritter and Damon Lamb.

Please contact your Executive Committee Student Representatives (Megan Lyle & Brittany Howell) with any questions, comments, or concerns.

Congratulations to the Thesis Defenders of 2008!

1/17/2008 Tommy Guillot (Gary Miller)
2/25/2008 James Lee (Lian Li)
3/11/2008 Sara Dodson (Allan Levey)
3/21/2008 Adam Orr (Xiao-Jiang Li)
4/15/2008 Gillian Hue (David Rye)
6/13/2008 Jill Bordelon (Chris Muly)
6/26/2008 Elyse Katz (Joseph Cubells)
8/29/2008 Jesse Schank (David Weinshenker)
11/7/2008 Lisa Imboden Giles (Lian Li)
11/7/2008 Lisa Hill Kreiner (Amy Lee)
12/2/2008 Anna Goldshmidt Orr (Stephen Traynelis)
12/4/2008 Anna Wiste (Thorgeir Thorgerisson)
12/5/2008 Suzanne Tydlacka (Xiao-Jiang Li)
Dr. Dennis Choi: Although funding for the university-wide Neurosciences Initiative was begun only in January of 2008, quite a lot is now in play. The Initiative adopted an inclusive definition of the neurosciences; this broad definition consists of about 440 Emory faculty, based in 31 departments and 7 schools.

The Initiative has already helped bring various subsets of this community together in planning discussions, retreats, seminars, roundtables, and journal clubs. A community-wide scientific mini-retreat was held Jan 24, 2009.

A major symposium on movement disorders honoring Mahlon Delong is planned for next spring (April 17, 2009). Lunch meetings are being held monthly; all neurosciences faculty are invited and furthermore encouraged to bring a trainee, so over time we hope many neuroscience graduate students will be able to join in. We have set up an eRoom platform to support committee planning and an event calendar (on Blackboard: https://classes.emory.edu, use the calendar link under “Tools”); work is in progress to establish an Initiative website and an “always-on” video link between Yerkes and the Whitehead Biomedical Research Building. The Initiative’s Executive Committee has identified the encouragement of interdisciplinary scholarship as a top priority, and has launched a seed grants program to help fund promising cross-cutting explorations. In addition, Greg Berns and Mary Horton have agreed to develop and lead a new multi-level interdisciplinary training program that will support the studies of several new “Scholar” positions within undergraduate, graduate, and postdoctoral ranks. Several months ago the Initiative joined forces with the Department of Psychiatry, the Schools of Business and Medicine, and the College, to support the formation of an exciting new Center for Neuro-policy led by Greg Berns.

The clinical component of the Initiative, the Comprehensive Neuroscience Center (CNC) within the Woodruff Health Sciences, has been funded since 2006, so things are further along. Ed Craighead was recruited to the Departments of Psychiatry and Psychology to establish, de novo, the Childhood and Adolescent Mood Disorders Program (CAMP). The number of patients seen in this important new program increased by 36% in the first half of 2008 over 2007. The program has begun its first clinical trial of therapeutic approaches, and a large P20 grant application has been submitted to NIMH. Efforts are also underway within the CNC to strengthen and integrate clinical and research programs in the areas of Alzheimer’s disease, movement disorders, stroke, and sleep.

To date, the Initiative and its CNC has facilitated the hiring of 14 new Emory faculty, at ranks from Lecturer to Professor. Lastly, the Initiative has hired a capable Administrator (Emily Vander Wiele) and recruited Leigh Hurt to lead neurosciences development within the context of the University’s ongoing capital campaign. Leigh now aids the coordination of relevant fundraising efforts being carried out by development officers in different departments or units within the University. Raising philanthropic support is of course essential to the Initiative’s longer term prospects for success.

CS: What expectations can Emory’s neuroscience community reasonably place on the Initiative?
DC: For the Initiative to add value, community members have to engage. Reach out to colleagues in other parts of the University, share ideas, and identify new ways to advance our research, teaching, or clinical care missions. Then, work with me and other members of the Initiative’s committees to find ways to make things happen. The Initiative still has a modest pot of uncommitted funds that we can spoon out sparingly to help bring our best ideas to fruition.

CS: What are the concrete signs of progress for the Neuroscience Initiative?

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Alumni Interviews: Sara Dodson and Lisa Stanek
Amy Mahan, Editor

Transition from Grad Student to Postdoc: Interview with Sara Dodson

What lab are you in now, when did you graduate and in whose lab did you get your PhD? My Emory mentors were Jim Lah and Allan Levey. I defended last March and then I stuck around in the lab for another 4 months as a postdoc. I joined Bob Mahley’s lab (Gladstone Institute at UCSF) about 4 months ago. Dr. Mahley is a pioneer in the study of the ApoE protein, a strong risk factor for the development of Alzheimer’s disease.

How did you decide which lab to do a post-doc in and how did you go about getting the position? The very task of finding the “right” lab to post-doc in can make your head spin. I had a few ideas of labs that were doing nice work, and I actually went to a small conference about getting the position? The good news is that the vast majority of labs are desperate for really bright, well-trained postdocs.... the bad news is that they quite likely don’t have the money available to take on another salary. So after I licked my wounds and regrouped, I got a little more organized. I spent a couple weeks expanding my list of possibilities, and I asked anyone who was willing to listen– especially my advisors- to give me names of people that they thought would make great mentors. Then, I emailed a fair number of investigators (maybe 15-20) with a brief email to inquire if they had any positions open. I also attached a full CV, published manuscripts, and a cover letter detailing how awesome his/her lab was and how much awesomer it could be if she/he were to hire me. My main goal was to have a number of really nice options to choose from, and as the process slowly unfolded, I was offered interviews. In the end, I was able to pick the lab I wanted out of a handful of options, which were all really great places.

How big of a help was your graduate school mentor in this decision? I sat down with Jim and Allan on a few occasions to ask for their advice. They offered both general advice on how to think about starting my career in science, and they made specific suggestions of people that they knew were fantastic researchers. It’s extremely helpful to consider how potential mentors are viewed in their field, and your advisor hopefully has wonderful insight to share. But, I also think it’s a great idea to listen to a few different voices. Take advantage of the fact that the faculty at Emory are so open and available and ask around.

Choosing A Career in Industry: Interview with Lisa Stanek

How have your experiences in academic post-doc and as Staff Scientist at Genzyme differed?

There are so many differences and yet so many similarities. The most obvious differences that I noticed right away are: schedule and compensation. In industry most people get to work early (7 or 8am, and everyone typically leaves by 5pm. Working nights and weekends is extremely rare). Entry level Scientists earn double if not triple the salary of the average postdoctoral fellow, and most companies offers extensive health benefits, stock options, and 401K matching retirement plans.

The similarities are that I am still doing research and publishing in peer review journals. I still do western blots, cell culture, perform mouse surgeries, write manuscripts, etc. but in general I spend more time outside of the lab. To summarize, being a staff scientist at Genzyme is more akin to being a young PI in academia (minus the grant writing). Generally, you become the champion or team leader of your particular research program. Your job is to evaluate opportunities in your disease area, design experiments, interpret data, and present this data to the business units at the company. You coordinate the research efforts but don’t spend much time in the lab doing the actual experiments.

A given experiment might involve a dozen different scientists and research associates, and a lot of the tedious tasks are outsourced.

How is applying for a job in Industry different than applying for a postdoc or an academic position?

Applying for a postdoc in academia usually requires a lot of word of mouth recommendations and networking with the people in your respective field to find out who is looking for postdocs. The process is usually somewhat informal. After sending your CV to the PI you are interested in working with, the process usually involves traveling to the lab, giving a talk, meeting the lab members, etc. If you get offered the position there may or may not be an official contract and most offers are usually made verbally. Applying for an industry job is much more formal. You submit your CV, letters of recommendation, cover letters, and a formal application (typically all done online). Then, if the company is interested, a series of interviews will follow. Typically there will be a screening phone interview with a recruiter or Human Resources representative, followed by a phone interview with the respective hiring manager (usually a scientist and your future boss), followed by one or more

(Continued on page 4)
Philosopher’s Corner: Emotion v. Rational Thinking
Meera Modi, Pursuer of Wisdom

As the semester draws to a close for many of us our rational self slowly starts to give way to our inner emotional beings. Through classes, grant writing and endless lab work we struggle to remain clear-headed, rational and frankly, sane. As the pressure piles on we are pushed closer to the edge until we reach the point where that one additional bandless gel sends us off into a fit of rage or a wave of tears. Situations like these invite reflection on which processes are actually in control of our thoughts, decisions and actions; is it our emotions or our rationality?

Philosophers have long attempted to address this question often recognizing that under different circumstances different processes may dominate. Plato believed that the man’s soul was comprised of three parts: reason, passion (akin to emotion) and the will. Of these three, he believed that ideally reason should dominate over passion and will, such that reason determined the path one should take. David Hume presented the contradictory view that “Reason is, and ought to be, the slave of the passions and to try to do nothing other than to be at their services” Hume believed that emotions defined purpose and motivation in life and that rationality was merely a tool to use to meet the needs of the emotions.

Modern neuroscientists like Antonio Damasio and Antoine Bechara have shown through their work with lesioned human patients that in actuality emotion and reason work in conjunction with one another in decision making processes, though through independent but intersecting systems. The ventromedial prefrontal cortex (VMPC) is a brain region that has been shown to be necessary for the generation of emotions, particularly social emotions. The VMPC projects to the basal forebrain and the brainstem regions, which control the somatic emotional response. Patients with lesions of this region exhibit diminished emotional responsivity and show reduced social emotions, like compassion, shame and guilt. Yet people with these lesions are typically normal in intelligence, logical reasoning and declarative knowledge.

Classical deductive reasoning on the other hand has typically been associated with a network including the left inferior frontal and parietal as well as the bilateral caudate nucleus. These brains interestingly, differ from those used in inductive reasoning, but both methods of reason utilize systems distinct from emotional processing.

It is thought that these systems can run in parallel, processing information with each of these systems making necessary contributions to decision making. For example a patient with a VMPC lesion possesses the neural structure necessary to compute rational decisions, without the contribution of emotional information. Most scientists argue that emotion is necessary to navigate our relationships with others and the world.

Alumni Interviews: Interview with Lisa Stanek (cont…)

(Continued from page 3)

rounds of face to face interviews and talks. If you get hired, you will receive an official job offer, contract, benefits package, etc. that you can negotiate. Once you've settled on the terms of employment you will sign the paperwork and you've officially got yourself a job.

What kind of personal qualities do you think would make a person more prone to success in industry as opposed to academia?

Scientists in industry have to be able to delegate and relinquish some control over their experiments. They have to trust their staff to do a rigorous job conducting the experiments and collecting data. We spend a lot more time in meetings than we do in the lab, and we regularly have to give presentations to business people (who don't always have science backgrounds), so the ability to relay scientific information to laypeople is critical. Most companies require a high degree of professionalism and the environment is much less relaxed than in academia. The dress code is more professional and within the lab there are a lot more rules and regulations.
As all other graduate school recruits, my interests were to be accepted to a high caliber academic institution and to develop myself as a future professional in the neuroscience field. To me, this meant joining a rigorous research program while being given the opportunity and support to further myself as an instructor. I realized at that time that no matter who I worked for, a university, industry, the government, etc., half of my job would be to communicate facts and ideas to others. Emory quickly caught my attention as the only university that I toured to emphasize the availability of and to encourage the use of several programs offered to graduate students that would strengthen me as an instructor.

In my fourth year as a graduate student, I became a NSF funded GK-12 graduate training fellow in the Problems and Research to Integrate Science and Mathematics (PRISM) program here at Emory. As a PRISM fellow, I am currently being trained to implement problem-based learning (PBL) in a high school chemistry class. PBL is an emerging technique that constructs a plot-driven story around a purposely ill-structure problem that must be solved by small student groups. During this process, students must identify issues that they do not fully understand, research these issues, create hypotheses and ultimately make an informed decision that will serve as a solution. Conversely, the teacher acts to facilitate the students as they learn instead of spoon feeding answers. In my experience, the students are actively engaged in daily classroom activities, as opposed to passively listening to the instructor, and are highly motivated to learn. They also walk away from the lesson with a greater understanding and experience on how to become autonomous learners, which is a primary goal of my emerging teaching philosophy. Ultimately, I believe that PRISM is providing me with the formal knowledge, tools and experience to become the effective instructor that I hope to be. For more information on PRISM, view http://www.cse.emory.edu/prism/index.cfm.

Grad School through the eyes of a PRISM fellow
Alex Poplawsky, Field Reporter

Don’t forget to come to Frontiers in Neuroscience, every Friday. Frontiers is our program’s weekly seminar series that happens every Friday at 12 noon. (Refreshments served at 11:45). Our speakers include faculty at Emory, and professors from other institutions selected and hosted by a second year graduate student. Unless otherwise noted all seminars are held in Whitehead Auditorium

February 6  Gregory S. Berns, M.D, Ph.D.  Emory University  Neuroeconomics: Past, Present, Future
February 13  Rebecca Rosen & Zoe Donaldson  Predoctoral Fellows, Emory University  Why Don’t Monkeys get Alzheimer’s Disease? And Developing Novel Genetic Tools for Investigating the Genetic Basis of Social Behavior
February 20  Ping Chen, Ph.D.  Emory University  Line up to Listen: Planar Cell Polarity Regulation in the Mammalian Auditory Sensory Organ
February 27  Kim Maguschak & John Rolston  Predoctoral Fellows, Emory University  Strengthening the Bonds of Memory, and Distributed Microstimulation and Epilepsy
March 6  Regina Sullivan, Ph.D.  University of Oklahoma  Neurobiology of Infant Attachment and Development of Fear
March 13  Karen S. Wilcox, Ph.D.  University of Utah  Expanding Horizons in the Anticonvulsant Drug Development Program
March 20  James K. Rowlett, Ph.D.  Harvard Medical School  Valium Revisited: Therapeutic Potential of GABA_A Receptor Modulators
March 27  Paul Vezina, Ph.D.  Emory University  Dopamine-glutamate Interactions and Amphetamine Sensitization
April 3  Randy Hall, Ph.D.  Emory University  Orphan G Protein-coupled Receptors Associated with Inherited Neurological Disorders  Held in School of Medicine Auditorium #130
April 10  Mar Sanchez, Ph.D.  Emory University  The Role of Maternal Care on Primate Development  Held in School of Medicine Auditorium #110
April 17  Mahlong DeLong Symposium  Basal Ganglia: Function, Movement Disorders and Treatment Options  Held in School of Medicine Auditorium #110
April 24  Michael Moskowitz, M.D.  Harvard University  Migraines, Mice, Mechanisms & More!
Graduate Student Life Outside of the Lab

Graduate school is a long and slow moving process. Though each lab has its own unique dynamic, we all find a way to get out of the lab and enjoy ourselves outside of science from time to time...

Dave Weinshenker’s lab likes to go out to dinner, participants in Trivia Nights at local establishments and frequently use lab meeting as an excuse to see the latest Bond or Spiderman movie....

Erwin Van Meir’s lab escape the lab to go rafting...

Larry Young’s lab takes a break from watching prairie voles mate, by taking a trip to Larry’s family cabin in South Georgia.

Mark Wilson’s lab goes road-tripping!!!

Rebecca Rosen, Zoe Donaldson and Vas Michopoulos go hiking...

Some Fourth Years escaped from the lab long enough to go go-carting....

Shawn Hochman, Andy Jenkins, and Tamara Caspry sing karaoke (right).

Some events to look forward to include our very competitive Trivia game, hosted by Randy Hall (left)

Steve Potter (right) and students work diligently discuss their trivia answer
GIVE: A New Graduate Student Service Organization on Campus
Lucy Guillory, Editor

This past semester Margie Varnado, business manager of GDBBS, and several GDBBS students pioneered a new graduate student service organization called GIVE (GDBBS Involved in Volunteerism at Emory). GIVE has already accomplished a lot in its initial few months.

The winter clothing drive group, headed by Meriem Gaval was a huge success. GIVE collected hundreds of coats and other clothing for men, women, and children to benefit two organizations who assist victims of domestic violence: Georgia-based La Casa de Los Angeles and Johnnie's House.

NaTasha started the very successful Yoplait Save Lids Save Lives lid drive at Emory in support of breast cancer research and treatment. Yoplait® donates 10 cents to Susan G. Komen for the Cure® for every pink lid received, up to $1.5 million with a guaranteed donation of at least $500,000. Through GIVE, 999 pink lids were raised for a grand total of $99.90. Several other service projects are also underway. Alisha Epps lead a project to donate Christmas gifts for three disadvantaged families in the High Falls area. Also, Dr. Judy Fridovich-Keil started a bakery donation project. She works with Virginia Highlands bakery Alon’s which donates leftover bread and muffins to the Ronald McDonald House by Emory Hospital and to local homeless shelters. GIVE volunteers also recently helped the organization Project Open Hand prepare food for homeless shelters.

In light of the recent successes of GIVE, Ms. Varnado plans to expand GIVE to other graduate school departments. If you would like to help GIVE with any of their existing projects or start your own project, please contact Margie Varnado and/or visit the website at http://

The Printables: Crossword Puzzle

ACROSS
1. Leonard Howell’s Favorite Sport
4. Neuron Cell body
9. Monogamous Mammal
11. Rene Descartes called it the "seat of the soul"
13. GnRH’s Patients
15. The glue of the nervous system;
16. Necessary for hearing
17. Phineas Gage injury
18. Damage to this pathway can cause conduction aphasia.
19. Ron Calabrese’s Favorite Model Organism
20. Neurone Junction

DOWN
2. SFN 2009 Locale
3. There’s no wrong way to…
5. Spider web like meningi
6. Neurotransmitter lacking in patients with Parkinson’s disease
7. Point at the junction of the sagittal and coronal sutures
8. Animal joke at the end of Mike Davis slide presentations
10. H.M.
12. Alcoholic beverage, or graduate student sponsored program
14. Tough mother

http://sites.google.com/site/givemory/.
Emory - Women In Neuroscience (E-WIN) Hosts Inaugural Event!!!

The evening of January 29th 2009 marked the inaugural event for the new student group Emory Women in Neuroscience. This organization was founded to address the unique needs of female scientists and to provide an opportunity for networking. Female scientists were invited from all disciplines related to neuroscience, with representatives attending from neuroscience, psychology, psychiatry, biostatistics, PBEE and even nutrition. This diverse group met to discuss issues related to women in academia and the future direction of the organization. Discussion was lead by invited faculty members, Elaine Walker (Psychiatry), Beth Buffalo (Yerkes) and Kristen Frenzel (Emory College Lecturer). The evening began with the answering of questions ranging from “Why are there so few female faculty members in neuroscience” to “Who is your science hero?”. Followed by a debate over the balance of work life and family life throughout different stages of an academic career. Students and faculty alike were highly engaged and excited by these discussions and all were enthusiastic for further meetings of the organization. Future meetings of E-WIN will address specific topics like “How women network differently than men”, “Career paths for women scientists” and “Jobs Skills: from negotiating a salary to managing a lab”.

If you are interested in participating in future E-WIN events or joining our listserv please send an email to EmoryWIN@gmail.com. This event was supported by the Neuroscience Initiative, the Neuroscience Program, the Emory Women’s Center, and the Graduates in Neuroscience.

Events in Atlanta

Don’t forget to get out of the lab and enjoy the many events happening in Atlanta!!! Here are some of the highlights of what is going on in Atlanta this semester.

1/2—3/1  Arts: Cirque de Soleil @ Atlantic Station

2/24  Hockey: Atlanta Thrashers v Colorado Avalanche @ Philips Arena

2/27-3/12  Comedy: Robin Williams @ Fabulous Fox Theatre

Til 3/1/2009  Arts: The Bodies Exhibition @ Atlantic Station

3/7  Music: Morrisey @ Variety Playouse

3/17-3/22  Theatre: Monty Python’s Spamalot @ Cobb Energy Performing Arts Center

3/19  Basketball: Atlanta Hawks v Dallas Mavericks @ Philips Arena

4/3  Baseball: Atlanta Braves Season Opener (Detroit)

Til 05/15  Arts: King Tut Exhibit @ The Atlanta Civic Center

4/23  Music: Nickelback with Saving Abel and Seether @ Lakewood Ampitheatre