

Augsburg Biophysics Takes Philadelphia!



Nathan Ly and Luis Hernandez presented their research at the 2013 meeting of the Biophysical Society. Here are a couple of posts from the blog they kept.



"A workshop geared towards writing effective cover letters, resumes, and CVs in order to enter the industrial work force. It's crucial to know what kind of audience views your application information. ... That's something I will take away from this workshop."

-Nathan

The BPS does a fantastic job helping early career scientists think about career development.



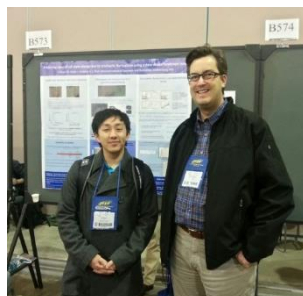
"No, frog legs do not taste like chicken. I lack the words to properly describe the taste, but they are pretty scrumdiddlyumptious!"

-Luis

"A warm reunion with one of my mentors, Alex Peterson, at NIST last summer."

-Nathan

Nathan spent the summer of 2012 working with Dr. Michael Halter and his colleagues at NIST.



*"The last night here!
Dance night!
Look at Nathan go!!!
Bust a move!!!"*

-Luis

This blurred image captures Nathan on the dance floor at the annual BPS dance. Admittedly, Prof. Stottrup retired early for the evening.

Check out all Nathan and Luis's posts at:
www.augsburgbiophysics.blogspot.com/

RECENT NEWS

Congratulations to our 2013 graduates: Gottlieb Uahengo, Trevor Rodriguez-Sotelo, Nana Owusu, and Nathan Ly!

- Augsburg will offer its first course in Biophysics during the fall of 2013. Physics 317 will be offered to students with backgrounds in Biology, Chemistry, and Physics. Prof. Stottrup is really looking forward to this course.
- Prof. Stottrup and Ravi Tavakley were co-authors on a paper published in the Proceedings of the National Academy of Sciences. Eric Bowman was recognized in the acknowledgements. The paper made news across the web.
- Prof. Stottrup gave presentations to the University of Minnesota's Chemistry Dept. (Duluth), Physics Education Research Group (TC) and the Global Physics Department.
- Augsburg Biophysics Alumni were accepted into graduate schools! Trevor Rodriguez-Sotelo is headed to Clemson to study Automotive Engineering. Nathan Ly will study Electrical Engineering at the University of Wisconsin, Madison. The University of Iowa will welcome Nana Owusu to study Biomedical Engineering.
- Several Augsburg Biophysics students have secured competitive summer research positions: Promise Okeke (Johns Hopkins University), Ben Grant (Colorado School of Mines), Eric Bowman (University of Nebraska), Jessica McKay (University of Minnesota), and Luis Hernandez (Polar Semi-conductor).
- Elly Bier was awarded a research position at NIST to work with long time collaborator and friend of the lab Michael Halter.
- Undergraduates presented their research into lipid membranes at a variety of regional meetings including University of Minnesota's IPRIME, MAAPT, and NCUR.
- Issam Ismail and colleagues from the Macosko group at the U of M have joined the activity of the lab. Thanks to Sumaya Abdullahi for helping their project move forward.



Summer 2013 Crew



Highlighting Professor Joan Kunz

Each issue we try to catch up with a member or friend of Augsburg Biophysics. Here we catch up with one of the busiest members of Augsburg Biophysics. Professor Joan Kunz has brought a fantastic work ethic, expertise as an inorganic chemist, enthusiasm, a focus on safety and... *Scones on Fridays.*



Why chemistry and not biology or physics? I liked Biology and Physics, but worried about job potential of those majors if I did not get into medical school...so I chose chemistry because there is an appreciable chemical industry. My interest in science stemmed from figuring out and understanding how things work at an atomic level. By the time I got to choose med school or graduate school in chemistry, I chose chemistry because I liked doing science (not really allowed to experiment on medical patients).

What do you look for in a potential student researcher? I look for a student with a curious mind, willing to ask questions, willing to make mistakes and keep trying. A strong intellect helps; as Louis Pasteur said, "Chance favors the prepared mind."

What area in chemistry do you notice students Augsburg more psyched about? Do you know why this might be? I notice Augsburg students very psyched about organic chemistry because Dr. Wentzel is very inspiring in his teaching and research with organic synthesis. I also note students drawn to analytical chemistry, as Dr. Feng is doing some exciting research that combines chemical synthesis (mostly organic and organometallic synthesis) on a flow-reactor system with analytical chemistry.

How does chemistry play a role in other sciences? Chemistry has long been called "the central science" (especially by chemists!) b/c chemistry is useful to biology and physics, and to environmental science and toxicology and medicine and neuropsych and... "Everything is chemical!"

Why did you team up to work with a physics professor? Ben Stottrup's work in biophysics centers on lipid monolayers, and studies the physical properties of these molecules. The details of their behavior are a consequence of their structures and their interactions; in short, their chemistry. So it is a natural fit for a chemist to work with a physicist on this type of project. Other projects in food science also connect to chemistry, so again there are natural overlaps that can make for productive collaboration. The best science is done with teams of people with different perspectives and areas of expertise.

What do you think is students' greatest fear about scientific research? How do you tackle this fear?

You might ask students what their greatest fears are! In my experience, students are typically afraid of making a mistake that damages equipment, or making a mistake that results in personal injury. I try to alleviate these types of fears through safety training and encouraging general awareness of one's surroundings. I try to set up a space in which it is OK to make mistakes, where students are comfortable to ask questions, where students can explore and do science. When students learn some basic safety and awareness, learn lab protocols and how to operate the equipment, then much of the fear of damaging self or equipment is greatly lessened.

What is the reward that you receive in helping students conduct scientific research?

The biggest reward is seeing students get turned onto doing science and becoming scientists! I enjoy seeing discovery through the eyes and experiences of the students; your enthusiasm helps me keep my own enthusiasm.

8th Annual Augsburg BBQ and Networking Event



We are **grateful** to all of the **lab alumni 2006-2012** who took time to network with our students. **THANK YOU!!!**



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GET INVOLVED! We have great projects for students, as well as equipment and expertise for collaboration. Check us out at: <http://web.augsburg.edu/~stottrup>

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Interested in Giving?

Prof. Stottrup would be happy to connect you with Augsburg's Development Office.

