Behavioral Laboratory in the Social Sciences

Newsletter

HARVARD COLLEGE

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Anji Tang

Year: Rising Junior
Concentration: Neurobiology
House: Cabot
Hometown: Belmont, MA

PRISE research project: I am working in Jeff Lichtman's (think MCB 80 prof.) lab on the Brainbow project. This summer I am practicing animal dissection for the sake of injecting a retrograde tracer in a specific muscle of the mouse's hand. Imaging will allow us to find the motor pool of neurons in the spinal cord. I will then be using an antibody label specific to a synaptic vesicle protein (SV2A) to locate the topography (or lack thereof) of slow type motor neurons. I will essentially be attempting to establishing the existence/lack of a topographic map between the spinal cord and motor neuron subtype.

About Anji: I chose science because I really like logic and finding explanations for everything. Outside of my academic field, I love blogging (mainly now for Harvard Premed Society and THURJ). I also perform on the piano as part of Harvard Mihnuet and the Crimson Crooners, a student performing group that travels to different nursing homes in Cambridge to deliver our wonderful music to the old folks.

Most embarrassing lab experience: In high school, I became convinced that I was not fit to be in a molecular

Ally Freedy

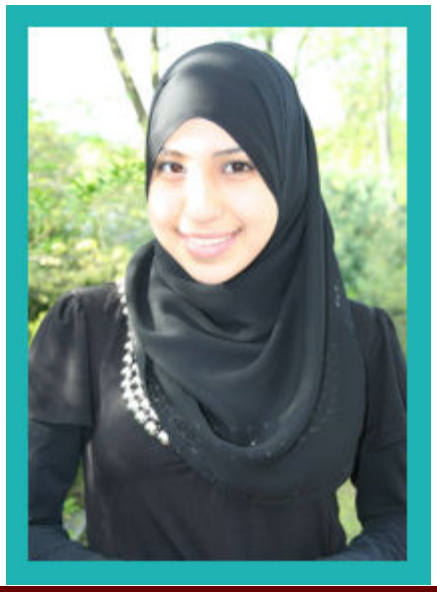
Year: 2014
Concentration: Chemistry with a Secondary in Neurobiology
House: Kirkland
Hometown: Clearwater, Florida
PRISE research project: I work in the Hensch Lab in Northwest Labs. We are a neurobiology lab that focuses specifically on the mechanism behind brain plasticity within a certain critical period (the period early on in an animal's life when their brains are particularly prone to learning). Basically, my lab is looking to answer the question of why and how children learn much faster than adults. In my project, I use ocular dominance plasticity in mice to model this critical period. I study the mouse visual cortex in and around the critical period to look for signs of what causes this increase in plasticity early in life.

About Ally: When I was little I used to mix various household items in hopes that I could take stains out of my clothes and pen marks off the wall by making some "magic" solution. When my little brother decided to draw pictures in pen on our wall, I became obsessed with making a solution to take the pen off the wall. I remember eventually succeeding with some odd mix of shampoo, soap, dish soap, soda and whatever else we had around

lab after my first western blot fiasco. Suffice it to say, I have "blotted" out the memory so successfully that I can't even clearly recall whether it was a western blot that I botched. I only remember fumbling around clumsily in a dark room, putting what I thought was the "film" into a machine, and waiting excitedly for the protein bands to come out. All that emerged from the procedure, however, was the cardboard package in which the films came. I had put that in instead of the actual film. "Oh, I've seen people do that..." my postdoc said hesitantly...you could tell I was the first person in her conscious memory to have made such a mistake.

Fun fact about you: I am an avid mystery fiction fan. Not so much the Sherlock Holmes. I am insanely obsessed with Agatha Christie and am fast on my way to completing all her novels and watching all the screen adaptations. Miss Marple and Hercule Poirot have literally become my favorite nonexistent people.

Nora Abo-Sido



Year: 2013
Concentration: HDRB
House: Winthrop!
Hometown: Quincy, MA

PRISE research project: I'm studying the miRNA binding protein Lin28 and looking at the role it plays in regulating glucose uptake and metabolism with aging.

About Nora: During the year, I teach weekly darkroom classes with the photography club and serve as the director of health education for FIMRC. I also love playing with children and volunteer to do just that whenever I can. Blocks are my favorite.

our house. Once I got the thrill of experimenting through these "magic" solutions, I was hooked on science.

Outside of science, I enjoy playing the flute in the Harvard Band and the Flute Ensemble. I also participate pretty heavily in Harvard Relay for Life and teach with Harvard Experimentors (I perform science experiments with middle school students once a week). I also really enjoy playing sports. I especially love playing basketball because I played it all four years of high school.

Most embarrassing lab experience: My most embarrassing lab experience has got to be the first time I watched a perfusion (how we remove the brain from each mouse). Although I was only spectating, it was certainly a pretty interesting experience. Basically somebody had forgotten to completely open one of the valves on the tubing from the oxygen tank. When we turned on the oxygen to anesthetize the mouse for the procedure; everything seemed to be going smoothly. Once we were halfway through the procedure, there was a really loud bang. It sounded sort of like a loud gun shot. People came to check on us from throughout the lab and even from the halls (some weren't even associated with the lab; but just wanted to see that we were ok). Because we didn't open up the valve all the way on the oxygen, the tubing from the oxygen tank had burst. Because it was made of a tough plastic, it made a pretty loud bang that attracted a lot of attention. We got the tubing replaced and everything worked out; but it was still a pretty memorable and scary experience.

Fun fact: I play the bagpipes.

Allen He

Year: 2013
Concentration: Sociology

Most embarrassing lab experience: After preparing and setting up a reaction in a 96 well plate, I went to cap it...and ended up flipping it over, spilling the contents.

Fun fact about you: I grew up trilingual.

Richard Smith

Year: 2013
Concentration: Chemistry (considering changing to HDRB)
House: Eliot
Hometown: Durham, England

PRISE research project: Tissue Engineering; synthesizing vascularized and innovated skeletal muscle.

About Richard: As a chemist, I am fascinated by atomic interactions at the molecular and cellular level of science; as a varsity athlete I am constantly astounded by its application. However I feel the connection between research science and its application is sometimes underutilized and seemingly disconnected. Playing two years of full-time soccer in England exposed me to a variety of injuries that led to lengthy, frustrating and often unsuccessful re-habilitation. I witnessed international athletes sustain damage, that, even with the wonders of modern medicine could never return them to their original state. I became intrigued by this recurring problem; beyond a certain damage threshold, the player's bodily tissue and helpless career appeared to be irreparable. I pondered over the possibility to press the reset button; is it possible to restore, regenerate or even improve the human body after sustaining or inheriting such condemning medical complications?

House: Kirkland
Hometown: Brooklyn, NYC

PRIMO research project: I'm working on the PRIMO project with Michael Porter and Jan Rivkin that studies U.S. competitiveness. Specifically, how is America doing in terms of job creation and other fields of production? We are trying to see how America stands in comparison to other countries in the short and long term.

About Allen: I am an avid sports fan, both watching and playing. I support all New York sports teams, even though there are unspoken rules that prohibit one from being both a Yankee/Met fan or Giant/Jet fan. I also enjoy listening to music a LOT, mostly to hip hop and rap but I also enjoy listening to indie music as well. I would sometimes find time to just listen to music without doing anything else, something that is a lot harder than it sounds!

Fun fact about you: I still buy physical CDs of albums that come out!

Ainsley Faux

Year: 2013
Concentration: Biomedical Engineering
House: Adams
Hometown: Alexandria, VA

PRISE research project: I'm working in David Clarke's Material Science lab where we are attempting to develop a microbial approach to recovering tellurium and indium from the earth. These metals are used in the development of solar cells and other clean energy technologies, but current methods of obtaining them are both energy intensive and inefficient.

About Ainsley: For as long as I can remember and I've always been curious about the world around me. I like to

Having been exposed to such scenarios, I became more interested in tissue engineering and its potential applications within regenerative medicine. Although clinical trials are many years away, the lab has already managed to generate a cartilaginous human ear on the back of a mouse and the vascularized muscle project is the next step toward potential complex organ synthesis. I am particularly fascinated by regenerative medicine but my interest is not limited to it alone; I am constantly amazed by the types of projects that PRISE community members are working on and I am excited by the discussions that we will have together over the summer. Thank you for taking the time to read a little about myself and I hope to get to know a little more about you all over the coming weeks.

Most embarrassing lab experience: Trying to study cells under a microscope with the lens cover still on :-(

Fun fact about you: I took two gap years to play full-time soccer in England for Sunderland AFC.

understand how things work or why things are the way they are, hence my interest in science.

Most embarrassing lab experience: In the first Chem 20 lab of last semester, my partner and I messed up just about every time we had the chance. Reagents were leaking when they shouldn't have been, half of our compound spilled into our ice bath, and we finished well after everyone else. Near the end of the lab our TF came and asked us "So are you two Chemistry concentrators?"

Fun fact about you: I spent the first two and a half weeks of summer traveling through Europe with some friends from high school.

The PRISE Journal Club, enjoying a Sunday brunch and scientific papers!
(Photo by Roxana Feier)