

MPB GSA NEWSLETTER

Winter 2013

The purpose of this newsletter is to serve as a resource for MPB students to get to know the department better.



Molecular Physiology & Biophysics Graduate Student Association

Autumn 2012 a Semester in Retrospect

Erica J Pruett

On September 6th the students and faculty competed in the eagerly anticipated Fourth Annual MPB Relay Race. The sweltering heat added tension to friendly taunts and bets made by rival labs. Eight lab relay teams faced off at the starting block, furred paper in hand, and with the starter's call the faculty first leg were off pounding the track circuit. In a closely contested anchor leg, the Piston-Jacobson lab pulled ahead, dashing Team O'Brien-Wasserman's third year championship hopes to claim their porcelain teapot trophy from Jackie Corbin. Second and third place finishers were the Cone-Lim lab and O'Brien-Wasserman lab respectively. Next year promises to be another exciting event as teams have allegedly already begun training regimens. Perhaps the tradition of a student, Wasserman face-off will be reinstated, the clippers are getting rusty. . .

The MPB GSA Halloween Social was well attended on November 2 with all manner of guests including ghouls, a box of lab fluorescent marker colored crayons, Pixar's Merida, and bath salt overdose turned zombie grad students. Psy of Gangnam style fame, impersonated by the Cone lab's own Chao Zhang made an appearance leading the Cone Lab in MPB's first flash mob. By the first place costume contest and Mellow Mushroom gift card win, the Cone Lab exhibited a redeeming costume contest turn around from the infamous "Cone heads" embarrassment three years past. «»



UPCOMING EVENTS

Jan. 29th : Happy Hour for rotation students at 4:30 in MRB IV 7th floor Atrium.

Feb. 8th : Student Coffee Hour with Dr. Chuck Cobb at 9:15 in 8th floor DRTC conference room.

May 15th : Student Invited Seminar Speaker Antonio Convit, M.D. of NYU. Professor and Director of Brain Obesity and Diabetes Lab (BodyLab).

And The Survey Says: 2013 Student Invited Speaker is Antonio Convit, M.D. of NYU.

Erica J Pruett

The votes have been counted and the MPB GSA is pleased to announce Dr. Antonio Convit will be speaking to the department during our Wednesday departmental seminar on May 15th.

Upon observing 40% of New York City public high school students are either overweight or obese, Dr. Convit and colleagues undertook what became the BODY project within school systems to

address metabolic disease progression amongst adolescents. Studies stemming from the BODY project have revealed that metabolic syndrome is associated with cognitive and brain impairments in adolescents. Dr. Convit's work has not only impacted the scientific community in further understanding CNS involvement with metabolic disorders, but has also elicited a call to action for pediatricians to consider early treatment of childhood obesity. «»

<http://psych.med.nyu.edu/research/research-faculty/antonio-convit-md>

<http://www.thebodyproject.org/>



Student Spotlight: Ken Drake

Getting to know MPB a little more

By Marquicia Pierce

Ken Drake

Currently
working in
John Wikswo's
laboratory



“ The best advice I could give a new graduate student is to not equate progress with results. ”

I am a graduate student in the Wikswo lab studying the role of amino acids in cardiac ischemia and hypoxia. We hypothesize that glutamine and glutamate in particular improve cardiac function during and after ischemia, ideally leading to improvements in the treatment of cardiovascular disease.

My studies have been very rewarding but one moment stands out more clearly than any other. Like many graduate students I had written my proposal and designed my thesis based on literature and theory in a field with which I had only recently become familiar. After completing a long series of experiments I began to analyze my data, not knowing what to expect. No one had studied this particular phenomenon before and I didn't know if

my idea had any merit at all. As I analyzed each data point I saw for the first time that preliminary experiments appeared to support my hypothesis and that I was seeing a facet of the world that no one had seen before. This was also the moment that I realized that I might just be able to graduate someday.

The best advice that I could give a new graduate student is to not equate progress with results. One of my rotation advisors told me that in the first four years of research you will experience more failure and frustration than you thought possible and that you may despair of ever graduating. Then, suddenly, the experiments will begin to work and 90% of your dissertation results will happen in the six months before you graduate.. «»

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Getting to know our Third Year MPB Students

Because these grad students are nearly done with or have completed qualifying exams and moved forward as official MPB Ph.D. candidates they have a lot to smile about.



Kristie
Aamodt
MSTP
student

My hometown is Harrisonburg, Virginia which is right in the heart of the Shenendoah Valley. I got my bachelor's degree from Brigham Young University in Utah and then worked for two years at Children's Hospital Boston doing vascular biology and tissue engineering research before joining the Vanderbilt MSTP. I joined Al Powers' lab. The project I'm working on involves understanding the role vasculature plays in pancreatic beta cell proliferation. I enjoy cycling, kayaking, and hiking. Typically if I do have free time when the sun is shining I try to be out in it.



Jordan
Feigerle

I am from Knoxville, TN. I have a B.S. in Biochemistry and Molecular Biology from Centre College. I went straight from undergrad to grad school. I am in Tony Weil's lab. My project is to determine how the TFIID subunit Taf2 interacts with DNA and how Taf2/DNA interaction contributes to ribosomal protein gene transcription in the yeast *Saccharomyces cerevisiae*. As far as outside the lab, although I don't do these things as much as I would like, I go bowling, play golf and read fantasy novels.



Liz
Ferrick

I'm originally from Austin, Texas and got my undergraduate degree in Chemistry with a Biology minor at Southwestern University (in Georgetown, TX). I am in Ron Emeson's lab working on miRNA editing and how it affects miRNA processing. In my free time I like to play the viola, piano, and sing, perform puppet shows at my church, go walking in the sunshine, compose music (mainly on the piano), and make and enjoy art of all kinds.



Andrea
Hill

Hello, my name is Andrea Hill. I was born in the small town of Sallisaw, OK. I completed my undergraduate career at Clark Atlanta University in Atlanta, GA. I am now a graduate student in the lab of Alyssa Hasty. I am currently working on determining the role of NF-kB and CHOP in the turnover and survival of adipose tissue macrophages in lean vs. obese adipose tissue. In my free time I enjoy playing sports, listening to music, eating, sleeping and hanging out with friends...and did I say sleeping.



Lukasz
Wylezinski

I was originally born in Warsaw, Poland and then moved to the States when I was five years old. I moved around living in Virginia and Alabama. My parents now reside in Lafayette Indiana. I went to Vanderbilt for my undergraduate education and then worked a couple of years as a research assistant, here at Vanderbilt as well, before applying to the IGP program. I work in Jacek Hawiger's lab. The majority of the work we do in the lab is focused on inflammation. I plan on studying Multiple Sclerosis to better understand the underlying immunology and the development of novel therapies. I enjoy playing sports in my free time especially Soccer.



Amanda
Meyer
Johnson

Amanda completed her undergraduate degree at DePauw University in Greencastle, IN. She is training for her graduate work in Tony Weil's lab.

Faculty Spotlight: Alyssa Hasty, Ph.D.

By Marquicia Pierce

Alyssa Hasty

In addition to her role as MPB's Director of Graduate Studies, Alyssa is esteemed for her work in adipose tissue macrophages including turnover, cell death, and iron metabolism.



What was your most memorable science moment or achievement?

It was an 'ah ha' moment I had while was working with ob/ob;LDLR^{-/-} mice as a postdoctoral fellow in Japan. Unexpectedly, these mice had cholesterol levels that were so high I had to dilute the plasma so that they would stay within the range of my standards. I knew at that moment that I had made a very important observation. This mouse model then formed the beginning of my work to determine mechanisms by which obesity increases risk factors associated with metabolic disease.

What influenced you to pursue a scientific career and stay within academics?

Although I didn't have any research experience before starting graduate school, I found it to be a perfect fit for me and I thrived in the lab environment. I loved designing and performing experiments, assembling figures, and writing manuscripts. As a student, postdoctoral fellow, and now as a faculty member, I love solving biological mysteries. I can't say that I always dreamed of being a PI; however, at each step of my career, I knew that I wanted to continue being involved in biomedical research. With regards to becoming DGS, I have always enjoyed working with students. It was a natural transition for me from being on the IGP Recruitment Committee and an IMPACT mentor, to now being DGS. I consider it a privilege to be the MPB DGS, and am truly blessed to enjoy coming to work everyday.

How have you used your personal strengths to excel in science?

I am a very organized person. My daughter was 3 when I started graduate school so I had to learn how to organize my time very early in my career. Embedded in time management is prioritization, which sometimes means making difficult decisions and making sacrifices in your personal life.

What does it mean to be a leader in the science community?

- 1 | Being "cross-disciplinary": For example, Roger Cone is able to engage with clinicians, geneticists, physiologists, and biophysicists and therefore his research is multidisciplinary and is clearly very impactful.
- 2 | Building and developing collaborative teams: This can be in a lab setting or in a larger multidisciplinary environment.

Student question: how can we develop "cross-disciplinary" skills in our training? (What things look extraordinary on our CV)

Take opportunities to give presentations, teach, write, and mentor rotating students. If you can steadily add 2-3 things to your CV each year, over the course of 5-6 years this will significantly build your CV.

What advice would you give to new graduate students and/or post-docs?

Do science that you are passionate about. You should anxiously anticipate the results of every single experiment – not just if it worked technically, but what does the data show you and what are the implications of your discoveries. If you are excited about your work it will come through in your presentations, manuscripts, and grants and other people will become excited too.

What are your plans for the future group meetings with students?

I will try to meet once a year with students to discuss specific interest that they may have at their stage of graduate school. For example, at an upcoming meeting I will be talking to the students about writing manuscripts and review articles. I will also be hosting Kim Petrie from the BRET Office to meet with our senior students to discuss preparing for postdoctoral fellowships. I am open to suggestions if anyone has a topic they would like to see covered.«»

New Year, New MPB GSA Officers

The students of MPB have elected the GSA board for 2013. The GSA would like to thank the prior officers for their contributions and are looking forward to a great year of organizing events and outreach opportunities for the MPB department faculty, post docs, and students. One of our goals is to continue to increase student involvement and camaraderie this year. Please contact any of the officers with recommendations, critiques or ideas. «»

President: Liz Meredith

Vice-President: Tammy Lundblad

Treasurer: Ashley Williams

Secretary: Kayla Boortz

Webmaster: Reid Bolus

Communications Chair: Erica Pruett

Seminar Chair: Rachel Lippert

TOOLS YOU CAN USE!



Vanderbilt Toastmasters is a group of mostly Graduate level students and young professionals who get together to practice public speaking and leadership. It's great training for anyone who wants to improve their public speaking or want to get over their fear of talking in front of a crowd.



Papers (for Mac) is a great way to organize your research articles. It's like iTunes for PDFs!



My NCBI saves searches and results from multiple NCBI databases, and features an option to automatically update and e-mail search results from your saved searches. My NCBI users can save their citations (journal articles, books, meetings, patents and presentations) in My Bibliography. If you haven't already, sign up for your own account.

We want to hear from you!

MPB students know how to get things done! Let us know of recent grants, awards and publications so we can feature it in the newsletter. Also, if you would like to contribute to the newsletter just let us know. You can submit articles to MPBGSA@vanderbilt.edu. It's a great way to improve your writing skills and would look great on your CV. Comments and suggestions are encouraged as well.



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MPBGSA@vanderbilt.edu