NEWSLETTER FROM THE DEPARTMENT OF

ANATOMY & NEUROBIOLOGY



Boston University School of Medicine – Division of Graduate Medical Sciences

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In this issue of the Department of Anatomy & Neurobiology newsletter, we again highlight the accomplishments of some of our faculty, students and staff. Of particular note is the annual Service of Gratitude for the families of our Anatomical

A Message from Our Chair

Gift Program. This is a very special occasion for the Department, and once again, the attendance by families, students and staff was remarkable. On another note, we congratulate Tara Moore as recipient of one of the Educator of the Year Awards, and to Sherri Eldridge who was a recipient of the American Association of University Women Fellowship for her dissertation exploring the morphology of sensory innervation in the skin of whales. The newsletter also highlights our recent graduates, as well as one of our many successful alumni. And congratulations to our graduate students who have done such an excellent job publishing the Department Newsletter!

Dr. Mark Moss

Faculty Spotlight: Dr. Tara Moore

Many congratulations to Dr. Tara Moore for being awarded the **Educator of the Year in Graduate Medical Sciences (Doctoral Programs)** at John McCahan Education Day on May 25, 2016. Dr. Moore teaches Neurobiology of Aging in the Anatomy and Neurobiology department, and, as program director for the M.S. Program in Forensic Anthropology, she teaches Professional Skills and Human Anatomy. She has also taught psychology and neuropsychology to undergraduates at Northeastern University, neuroanatomy to Neurology residents, and anatomy to several high school classes. Dr. Moore received her PhD from our department in 2000, and fondly recalls the mentorship of Dr. Lawrence Zoller, who helped her craft her first anatomy lecture—the triangles of the neck—to first-year dental students. To students who hope to pursue a teaching position after graduation, Dr. Moore advises, "gain as much experience as you can while you are a student. Our department excels in training educators and has very gifted educators—learn as much as you can from them!" **(Contributing Author: Ruiyi Ren)**



Anatomy Lab Body Donor Service of Gratitude

A Service of Gratitude to honor those who donated their bodies to Boston University's Anatomical Gifts Program was held on May 3, 2016 in the Hiebert Lounge. The ceremony is an annual tradition at BUSM and is organized entirely by medical, graduate, and dental students with the invaluable assistance of **Rob Bouchie** and **Lee Farris**, our Anatomical Gifts Coordinators. **Lauren Palitz** (MA, 2016) and **Chris Brooks** (a first year PhD student) served on planning committees this year. This year's service included music and dance performances, a candle-lighting ceremony, and a poignant keynote address from **Dr. R. J. Rushmore**, a faculty member in our department and the course director for the Medical Neuroscience course. Below is a highlight from Dr. Rushmore's address:

"The learning that is facilitated by and through the donors is education at its purest. This is in part because it allows the student to construct an understanding of the human body in the most direct way possible. But it is also this connection between donor and student that imparts a measure of responsibility and ownership that gives more meaning and valence to this experience. The process humanizes and personalizes the academic and theoretical, and like any profound educational experience, the relationship of the students with the donors is something that lasts – students will remember this experience for the rest of their lives."



Dr. Rushmore delivers the keynote address.

(Photo Credit: Rohan Rastogi, SOM '19)





Rob Bouchie embraces a guest at the ceremony.

Lauren Palitz (MA, 2016) lights a candle for her donor.



Dr. Zumwalt and Dr. Hoyt attend the Service of Gratitude.

Recent Departmental Publications

This list includes only a few of the many papers that students, post-docs, and faculty in our department have published since our last issue!

- Comments and general discussion on "The Anatomical Problem Posed by Brain Complexity and Size: A Potential Solution". DeFelipe J, Douglas RJ, Hill SL, Lein ES, Martin KA, **Rockland KS**, Segev I, Shepherd GM, Tamás G. *Frontiers in Neuroanatomy* 2016.
- DNA methylation signatures of early childhood malnutrition associated with impairments in attention and cognition. Peter CJ, Fischer LK, Kundakovik M, Garg P, Jakovevski M, Dincer A, Amaral AC, Ginns EI, Galdzicka M, Bryce CP, Ratner C, Waber DP, Mokler D, Medford G, Champagne FA, **Rosene DL**, McGaughy JA, Sharp AJ, Galler JR, Akbarian S. *Biological Psychiatry* 2016.
- Automated evolutionary optimization of ion channel conductances and kinetics in models of young and aged rhesus monkey pyramidal neurons. Rumbell TH, Draguljić D, Yadav A, Hof PR, **Luebke JI**, Weaver CM. *Journal of Computational Neuroscience* 2016
- The primate connectome in context: principles of connections of the cortical visual system. Hilgetag CC, **Medalla M**, Beul SF, Barbas H. *NeuroImage* 2016.
- A working memory buffer in parahippocampal regions: evidence from a load effect during the delay period. **Schon K**, Newmark RE, Ross RS, Stern CE. *Cerebral Cortex* 2016.

Prenatal protein level impacts homing behavior in Long-Evans rat pups. Fischer LK, McGaughy JA, Bradshaw SE, Weissner WJ, Amaral AC, **Rosene DL**, Mokler DJ, Fitzmaurice GM, Galler JR. *Nutritional Neuroscience* 2016.

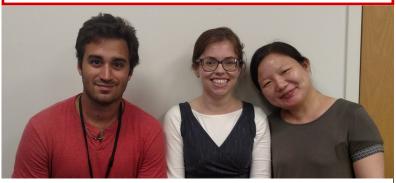
Anatomy and Neurobiology Goes out to the Ball Game!

Faculty, Staff, and Students from the Moss-Rosene-Moore Lab attended the Boston Red Sox vs. Tampa Bay Rays baseball game (which the Red Sox won 6-5!) on Friday, July 8. **(Photo Credit: Katie Kern, 1st-year PhD)**



Recent Thesis Defenses

Congratulations to Danielle Farrar, an MD-PhD student in Dr. Killiany's lab, and Phil Montenigro, an MD-PhD student in Dr. Robert Stern's lab for recently defending their PhD theses!



The 2015-2016 Newsletter and Network Committee: John Caccaviello, Alexandra Wink (editor), Ruiyi Ren

Have anything you would like to see published in the newsletter? Email updates, stories, or upcoming events to

anatneuronews@gmail.com

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Alumnus Update: Todd Fiacco, PhD



graduate of the PhD program in Anatomy and Neurobiology and is currently an Associate Professor in the Department of Cell Biology and Neuroscience at the University of California, Riverside (UCR). He teaches large undergraduate courses in neuroscience as well as

graduate research modules on electrophysiology. His current research focuses on astrocytic mechanisms regulating neuronal excitability in brain pathologies, including epilepsy.

While at BU, his primary advisor was Dr. Gene Blatt, but much of Todd's time was spent in the Moss/Rosene lab. After graduating, he completed a postdoctoral position under Dr. Ken McCarthy at the University of North Carolina-Chapel Hill in the Department of Pharmacology, before joining the UCR faculty in 2009. Here we interview Dr. Fiacco about his research and his time in our department!

What is your favorite aspect of your current position?

The variability of our job makes the work never monotonous. This is also a caveat in that you are always pulled in different directions and have to manage your time very carefully. I love research because you are always solving a puzzle, and you

Dr. Todd Fiacco is a 1999 never really know what you are going to find.

What were some of your most memorable moments in the department?

One of my favorite memories was when I took the Neuroscience course with my friend Cyrus Torchinski, who was quite the character. Dr. Alan Peters, chair of the department at the time, had just delivered a brilliant lecture on the barrel cortex of rodents as an example of functional columns. After the lecture concluded, Cyrus approached Dr. Peters and asked him, "Dr. Peters, are you growing that moustache to stimulate your barrel cortex?" I thought we might be in trouble. Dr. Peters reflected for a moment while rubbing his chin, deep in thought, and answered in his strong British accent, "Well...I supposed you could look at it that way..." It was hilarious.

What advice would you provide to students today?

Be very patient in the field of research. Don't look too far ahead or read too much about the difficulties ahead! It's like reading about having children before having them—if anyone really knew what was in store for them, they wouldn't do it.

Dr. Fiacco expressed gratitude for the department, including Dr. Moss, Dr. Rosene, and former administrator Janet Harry; as well as Drs. Alan Peters and Sanford Palay, whose pictures he shows to his students when he teaches the fine structure of the nervous system.

Student Spotlight: Sherri Eldridge

Sherri Eldridge, a visiting graduate student in the Moss-Rosene Laboratory, was awarded a 2016-17 AAUW American Dissertation Fellowship for her dissertation exploring the morphology of sensory innervation in the skin of whales. Sherri's pioneering work shows that these secondarily aquatic mammals have evolved novel sensory structures to detect environmental signals. Her BUSM research advisors and dissertation committee members are Drs. Farzad Mortazavi and Doug Rosene. She anticipates earning her PhD in Marine Science from the University of Massachusetts Dartmouth next year.



The American Dissertation Fellowship (<u>www.aauw.org</u>) supports women scholars who are completing their doctoral thesis. Candidates are evaluated on the basis of scholarly excellence; quality and originality of project design, and active commitment to helping women and girls through service in their communities or fields of research. For the 2016-17 year, this competitive award was granted to 44 doctoral candidates nationwide. Institutional affiliation is credited to the facility where the dissertation research is conducted. As such, Sherri is the first student at BUSM to receive the American Dissertation Fellowship. For more, visit: <u>http://www.aauw.org/aauw_check/fellowships_directory/#rid4020</u>.