

# PROGRAM FOR THE MEETING

- 3:30 pm **Poster set-up**
- 4:00 pm **Welcome and opening remarks** *with refreshments*
- 4:15 pm **Dr. Rita Balice-Gordon**, “Building a scientific life”
- 4:45 pm **Discussion:** Community Outreach and Brain Bee  
Career Development with SFN
- 5:00 pm **Poster Session** *and pizza*
- 6:00 pm **Lightning Talks**, Morgan Rogers-Carter, Ph.D. Candidate  
Michael F. Wells, Ph.D.  
Sarah Hopp, Ph.D.  
Grace Liu, B.S.A.
- 6:50 pm **Awards and Closing Remarks**

To all poster presenters: please arrive at 3:30pm to hang up your poster before the talks begin

## To get to UMass Boston:

1. Drive to the UMass Boston Bayside Lot at 200 Mount Vernon Street, Boston MA 02125, park (\$6), and take the #3 shuttle to the Clark Center Circle.
2. You can also take the MBTA red line to the JFK/UMass stop, and from there take the #1 shuttle to UMass Boston Campus Center.

★ We will have representatives waiting for you at both stops, but in case you get lost or can't find a student rep to show you the way, here is a map of campus:



The Boston Area Neuroscience Group (BANG)  
in partnership with the UMB Neuroscience Club  
proudly presents:

*The Fall 2017  
Boston Area Neuroscience Group  
Symposium and Meeting*



Wednesday, November 1st 2017 4-7pm  
University of Massachusetts Boston  
Ryan Lounge, 3rd Floor of McCormack Bldg





## POSTER PRESENTERS

<b>Presenter</b>	<b>Affiliation</b>	<b>Poster Title</b>	<b>Stand</b>
Elena Coley	Northeastern University	Transgenerational effects of early life stress: DNA methylation in brain and blood	17
José Colom-Lapetina	Northeastern University	Active vs. passive coping across paradigms: Sex differences in trait-like behaviors and neural markers	18
Caroline David	University of Massachusetts Boston	Investigating the role of dopamine in steroid-independent male sexual behavior in orchidectomized B6D2F1 hybrid male mice	14
Allison Foilb	Boston College	The role of posterior insular cortex in remote fear memory	6
Jaclyn Ford	Boston College	Age differences in memory retrieval: The role of regulatory downregulation of medial temporal lobe activity by the prefrontal cortex	7
Cecilia A. Hinojosa	Tufts University	Neural predictors of treatment response in posttraumatic stress disorder (PTSD): Preliminary results	19
Sarah Hopp	Massachusetts General Hospital	Microglia contain, release, and process bioactive tau seeds	9
Aishwarya Kulkarni	Tufts University School of Medicine	Uncovering the common mechanism underlying postpartum depression and postpartum binge alcohol use	4
Deepika Kurup	Harvard University	The generation and characterization of mutant PSEN1 mice using novel base editor technology	10
Julianna Lebron-Echandy	Massachusetts General Hospital	An examination of brain oxidative stress, perineuronal net formation and microglial activation following birth interventions	1
Seungkyu Lee	Boston Children's Hospital	Electrophysiological and transcriptome profiling of hyperexcitable motor neurons derived from ALS patient iPSC identifies downregulation of a potassium channel subtype	13
Grace Liu	Brigham and Women's Hospital	Long-term, sex-specific neurobehavioural effects of 56Fe radiation on WT and Alzheimer's disease mice	12
Karen Malacon	Harvard University	The role of Csf1r inhibition in treating neurodegenerative disease	11
Briana M. Mason	University of Massachusetts Boston	Investigating the Role of CXCR4 in the adolescent sensitization to amphetamine	3
Brooke Plotkin	UMass Boston	Environmental enrichment shapes anxiety-related behavior and amphetamine sensitivity in trait anxiety rats through alterations in dendrites	20
Morgan Rogers-Carter	Boston College	Social affective behaviors activate insular cortex and require PKC	15
Stephanie Scalia	MCPHS University	Remediation of inflammatory induced social rejection via the microbiome	16
Anika Toorie	Tufts University	Female adolescent opioid exposure confers vulnerability to metabolic dyshomeostasis in F1 offspring in a diet-specific context.	5
Michael F. Wells	Broad Institute of Harvard & MIT	Rapid production of neural progenitor cells from human pluripotent stem cells for the study of Zika virus neuropathogenesis	2
Steffen Wolff	Harvard University	Distinct roles for cortico- and thalamostriatal projections in motor skill learning and execution	8

## MEET OUR INVITED SPEAKER

**Dr. Rita Balice-Gordon, Ph.D.** is the Global Head, Neuroscience Research Therapeutic Area at Sanofi, Inc. She leads groups of scientists focused on discovering and developing therapeutics for neurodegenerative diseases, Multiple Sclerosis and CNS genetic diseases. Dr. Balice-Gordon is an internationally recognized expert in cell-cell signaling mechanisms underlying synapse formation and maintenance, neuromuscular development and disease and the pathophysiology of autoimmune CNS disorders. She has authored more than 100 scientific papers, has been the recipient of several awards and honors, is an elected Fellow of the American Association for the Advancement of Science, and has chaired or served on many national and international committees and on the editorial board of leading scientific journals.



### Special Thanks To:



The UMB Neuroscience Club provides a support network and idea forum for students of any major interested in, or seeking to know more about, the field of neuroscience and its related subjects. Come and learn about neuroscience research being done right on campus, as well as join like-minded faculty and students to read and discuss current neuroscience literature. Information and support on the graduate school selection and application process will also be presented.

Thermo Fisher Scientific is dedicated to making the world a cleaner, better and healthier place for everyone. As world leaders in the life sciences industry we strive to provide our customers with the best tools possible to facilitate their research. To learn more about the tools available for Neurological research please visit <https://www.thermofisher.com/fr/en/home/life-science/cell-analysis/neuroscience.html> or reach out to your local Thermo Fisher Scientific Account Manager.

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S C I E N T I F I C

# LIGHTNING TALK SPEAKERS

**Morgan Rogers-Carter**, Ph.D. Candidate, Boston College

Social affective behaviors activate insular cortex and require PKC

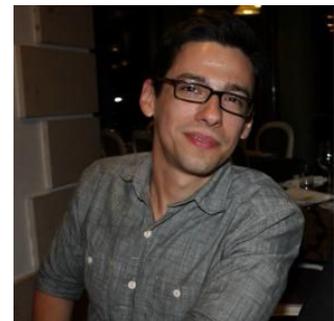
Morgan Rogers-Carter is a PhD Candidate in Behavioral Neuroscience at Boston College. She received her B.S. in Neuroscience and Psychology in 2013 from Baldwin Wallace University in her hometown of Cleveland, OH. After, she began her graduate work under the supervision of Dr. John Christianson. Her research objective is to identify the neural circuits that process and integrate sensory cues during social interactions to produce appropriate social behaviors in rodents. Aberrant sensory processing may underlie the social impairments observed in autism, schizophrenia, and Fragile X syndrome and thus this line of research is relevant to numerous psychiatric disorders. Morgan holds a National Science Foundation Graduate Research Fellowship to explore the role of the insular cortex in these neural processes.



**Michael F. Wells, Ph.D.**, Postdoctoral Associate, Broad Institute of Harvard & MIT

Rapid production of neural progenitor cells from human pluripotent stem cells for the study of Zika virus neuropathogenesis

Michael F. Wells is a neuroscientist from Columbus, Ohio. After completing his graduate work in the laboratory of Dr. Guoping Feng where he studied animal models of autism and ADHD, Michael joined Kevin Eggan's group at the Stanley Center for Psychiatric Research. Since becoming a member of the Eggan team, Michael has used human stem cell-derived neural cells to study a range of diseases, including schizophrenia, autism, and Zika Congenital Syndrome. Michael is currently a SfN Early Career Policy Ambassador and a sitting member of the SfN Trainee Advisory Committee. Michael is also the co-founder of the peer-review science communication website [ReclamationSci.com](http://ReclamationSci.com).



**Sarah Hopp, Ph.D.**, Research Fellow, Massachusetts General Hospital

Microglia contain, release, and process bioactive tau seeds

Sarah C. Hopp is a research fellow at Massachusetts General Hospital's Institute for Neurodegenerative Disease in the laboratory of Dr. Bradley Hyman. She received a bachelor's degree in Brain and Cognitive Sciences from MIT in 2008 and performed post-baccalaureate neuroscience research at EnVivo Pharmaceuticals (formerly of Watertown, MA). Her doctoral work, completed at Ohio State University under the tutelage of Dr. Gary Wenk, investigated the role of microglia in neuronal calcium dysregulation during chronic neuroinflammation and aging. Sarah's current research interests focus on the pathogenesis and progression of Alzheimer's disease, including the role of microglia in tau processing and the role of the phosphatase calcineurin in synaptotoxicity. Sarah's work is funded through the Massachusetts Center for Alzheimer's Therapeutic Science (MassCATS), a collaboration among numerous industry and academic researchers in the greater Boston area. Sarah is also currently teaching a course on the role of glia cells in health and disease at Harvard University. She hopes to continue research and teaching in academia and is currently applying for faculty positions.



**Grace Liu, B.S.A.**, Research assistant, Brigham and Women's Hospital

Long-term, sex-specific neurobehavioural effects of 56fe radiation on wt and alzheimer's disease mice

Grace Liu is a research assistant and lab manager for the Lemere Lab, part of the Ann Romney Center for Neurologic Disease at Brigham and Women's Hospital. She received a bachelor's degree in neuroscience from the University of Texas at Austin in 2015. She currently works on a project dealing with the CNS effects of exposure to deep-space cosmic radiation in mice, with emphasis on Alzheimer's disease development, in order to better predict the consequences of long-term space travel on astronauts. Her research interests include development and research on behavior analogs and mouse models of disease, and she has worked in projects in alcohol addiction, neurogenesis and spatial memory, and cancer chemotherapy-induced cognitive impairment.

