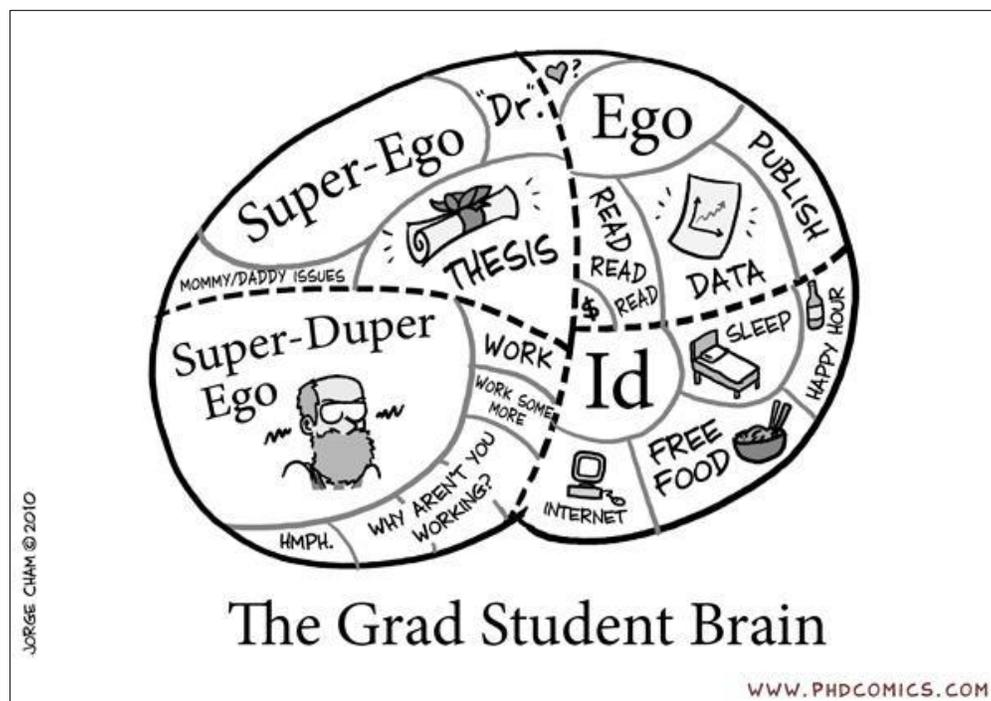


Being a Graduate Student in the Biomedical and Psychological Sciences

A panel discussion about starting and completing your graduate
education as a scientist



November 14th, 2012

Sponsored and organized by the Neuroscience Graduate Student
Association

Co-sponsored by:
UB Neuroscience Program
Psychology GSA
Biochemistry GSA
UBSoFem GSA
UB Graduate Student Association

Program Guide:

4:00-4:10: Panel Member Introductions

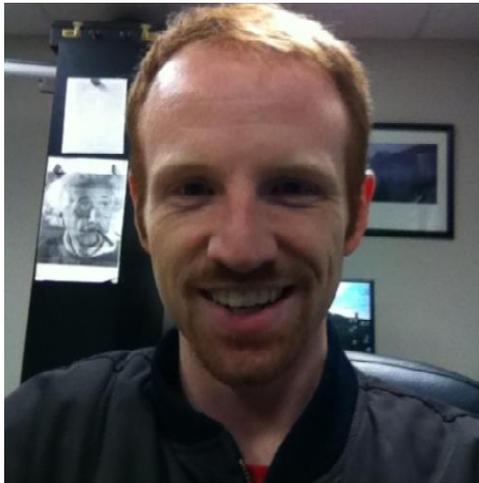
4:10-4:50: Structured Discussion Session

4:50-5:10: Open Question and Answer Session

5:10-6:00: Food and Refreshments

The Neuroscience GSA thanks all of the co-sponsoring GSA clubs (Psychology, Biochemistry, and UBSofem) for providing support for this event. An extra special thanks goes to the Neuroscience Program for their generous support.

The Neuroscience GSA would also like to thank all of the panel members and the moderator for providing their time and insight. Without these individuals this event would not have been possible. Profiles for members of the panel can be found in the following pages.



Joseph Boomer

Undergraduate:

BS, Psychology, Loyola University

Graduate:

MA, Psychology, University at Buffalo

Current Program:

PhD, Cognitive Psychology

Advisor:

J. David Smith, PhD, Department of Psychology

Personal Summary: I research categorization and metacognition in humans and monkeys, though my main focus is categorization. I am interested in learning how human and nonhuman minds make decisions about what is presented in front of them. Humans love to categorize objects based on a rule that they can verbalize to themselves and to others. For a long time, we thought that humans did this because they had language (and presumably, the fact that they can communicate how they are categorizing changes how they think about stimuli). It seems though that monkeys can also use decision rules; both an odd and exciting discovery! How can monkeys use decision rules if they can't speak? Does this mean that using rules is not so cognitively advanced? Or, does it mean that monkeys make categorical decisions similarly to humans? I am fortunate enough to find myself at the beginning of this research, and I hope to make a meaningful contribution to it.



Tom Covey

Undergraduate:

BS, Brain and Cognitive Sciences, University of Rochester

Graduate:

MS, Neuroscience, University at Buffalo

Current Program:

PhD, Neuroscience

Advisor:

David Shucard, PhD, Department of Neurology

Personal Summary: I am interested in the distribution and efficiency of brain resources underlying working memory (short term storage and manipulation of information) and executive functioning (e.g., attentional control and reasoning), both in normal individuals and in populations with neurological disorders. I have engaged in research in several clinical populations, including patients with Systemic Lupus Erythematosus, Multiple Sclerosis, and Post-Traumatic Stress Disorder symptoms. This research has utilized a variety of behavioral/neuropsychological and magnetic resonance imaging (MRI) techniques. I also have extensive experience with event-related potential (ERP) measures, which provide an index of stimulus-specific brain function and are ideal for studying the precise timing of cognitive processes. I am particularly interested in 1) brain function (as indexed by ERPs) associated with stimulus evaluation and manipulation during working memory and executive control processes, 2) how these functions are impaired in clinical populations, and 3) evaluating the effects of working memory training paradigms on behavioral performance outcomes and underlying brain functioning.



Lara Duffney

Undergraduate:

BA, Biochemistry, Molecular Biology, Wells College

Current Program:

PhD, Neuroscience

Advisor:

Zhen Yan, PhD, Department of Physiology and Biophysics

Personal Summary: My current project involves examination of proteins of the post-synaptic density involved in proper glutamatergic signaling, and the role these proteins play in cognition and executive functioning. This is particularly relevant in populations with Autism spectrum disorders and other neurodevelopmental diseases.



Sarah Long

Undergraduate:

BA, Psychology, SUNY Oswego

Current Program:

MA, Psychology

Advisor:

David Shucard, PhD, Department of Neurology

Personal Summary: I completed my undergraduate grant research, entitled "Examining relationships between working memory capacity and emotion", while attending Oswego. My current program is within the Masters of Arts in psychology with a concentration in cognitive and behavioral neurosciences under Dr. David Shucard. My master's thesis pertains to gender differences in measures of quality of life and cognitive function in obstructive sleep apnea. My ultimate professional goal is obtain a doctorate of philosophy in clinical psychology, and to someday work with the geriatric population.



Naomi McKay

Undergraduate:

BA, Psychology, Boston University

Current Program:

PhD, Behavioral Neuroscience

Advisor:

Derek Daniels, PhD, Department of Psychology

Personal Summary: The main focus of our laboratory is to understand the control of drinking behavior, specifically water and salt intake in male rats. In particular, one active area of research is the role that feeding peptides have on fluid intake. Many peptides that are traditionally thought of as playing a role in hunger or satiety also have an independent effect on fluid intake. Specifically, I am examining the effect that glucagon-like peptide-1 (GLP-1) has on water and saline intake. GLP-1 is a peptide produced in the intestines and in the brain, which is released when nutrients are present in the gut. When GLP-1 receptor agonists are administered animals decrease their food intake and in turn when GLP-1 antagonists are administered animals increase food intake. Together, this is compelling evidence demonstrating that GLP-1 is involved in satiety. However, there is also evidence that GLP-1 influences water intake. My project focuses on the suppressive effect that GLP-1 receptor agonists have on water intake independent of their effect on food intake. I have found that GLP-1 receptor agonists suppress water or saline intake under a variety of conditions. The results from my experiments suggest that GLP-1 does not have a suppressive effect that is specific to food intake, but causes a more general suppression of ingestive behavior.



Claire Modica

Panel Moderator

Undergraduate:

BA, Psychology, New York University

Current Program:

PhD, Neuroscience

Advisor:

Fraser Sim, PhD, Department of Pharmacology and Toxicology

Personal Summary: My lab researches the development of oligodendrocytes, the myelin-producing cells in the central nervous system. I am currently investigating the role and mechanism of a family of stem cell regulatory proteins on the commitment, growth, and maturation of oligodendrocyte progenitor cells and neural stem cells in humans and rodents.



Daniel Stolzberg

Undergraduate:

BA, Cognitive Science, University at Buffalo

Current Program:

PhD, Neuroscience

Advisor:

Richard J. Salvi, PhD, Communicative Disorders and Sciences

Personal Summary: I have been investigating behavioral and neurophysiological changes in animals experiencing tinnitus; the phantom perception of 'ringing in the ears'. Specifically, I am interested in how communication patterns between neurons of primary auditory cortex change during phantom sound perception. I have recently accepted a post-doctoral position in which I will investigate neurophysiological changes during deafness and the restoration of hearing with a neuroprosthetic device called a cochlear implant.