

My interests revolve around understanding the molecular and neurological mechanisms responsible for altering physiological behaviors and noting their impact on cognition. I have had numerous research experiences through the NIH funded BP-ENDURE program working with various disease models in neurophysiology and cell biology at Georgia State, Emory, and Vanderbilt University. These experiences have introduced me to key techniques including perfusions, animal care, cell culture, immunoblotting and immunohistochemistry as well as exposure to key scientists in the field of neuroscience and molecular biology. My studies in Classical Civilizations have driven me, not only to inquire about the molecular components that define behavior in lab, but also to research the applications of medicine and science from fourth century Greece to now. My goal as a graduate school applicant is to develop the techniques I have already accumulated and apply them to an exceptional research program that will further develop my technical and intellectual skill set in order to continue to advance as scientist. I feel that with my previous experiences, I will be able to grow immensely as a researcher and contribute to the Interdisciplinary Neuroscience Program at Georgetown.

The combination of excellent faculty and the opportunity for extensive collaboration provided by Georgetown would serve as an ideal place to continue on with my graduate studies. The ability to collaborate with Dr. Abigail Marsh and Dr. Maria Donoghue appeals greatly to me because both their research pertains to my interest in cognitive neuroscience and the molecular mechanisms of development. These are both fields that I have had the opportunity to work in at Georgia State and Emory University. Furthermore, the work done by Dr. Karen Gale involving neural networks and viral vectors complements my background in Rett Syndrome work with Dr. Larimore and stress induced cerebral changes with Dr. Neigh. The direction and partnerships within the Georgetown program would provide an extremely strong foundation for graduate work, and the ability to work with esteemed researchers within the field of neurobiology.

Considering the on going discoveries at Georgetown by such as Dr. Marsh, Dr. Donoghue, and Dr. Gale, I am confident that the sum of my experiences will be a valued addition to this program and that the continued investment of my education and development as a scientist will ultimately contribute to the growing knowledge of neurophysiological research both at Georgetown and in the field of neuroscience. My ultimate goal in pursuing a position in the Interdisciplinary Neuroscience Program, is to find an institution that fully embodies all the characteristics of excellent science, and contribute to it my determination, technical skill set, and passion for neuroscience. I have found that within this program, and I hope to be able to actively engage in the challenges proposed by a generation of physiological and cognitive disorders with fellow researchers at Georgetown. I would greatly appreciate the opportunity to learn and grow as a researcher from the faculty at Georgetown University, and I thank you for your time and consideration in reviewing my application.