

While presenting my summer research at this year's largest Annual Biomedical Research Conference for Minority Students (ABRCMS), I listened to a keynote lecture from Broadcast journalist Soledad O'Brien. In her speech, Soledad stated, "There is no one correct face on an 'American Family' or for the position you want to be in – your face is the correct face". Hearing this from such a profound woman of color, hours before winning a Neuroscience presentation award for my research, demonstrated to me how important it is to have positive representations of diversity. At such critical stages of my personal and academic development, Soledad represents accessibility and determination. As a Black woman and a first-generation college student, I had very limited exposure to Black women in STEM growing up. Despite the continued need for portrayals of this intersectionality, I have a desire to explore the neurological mechanisms that influence our daily behaviors because of my distinguished research experiences as a Neuroscience major at Agnes Scott College.

My first research experience came about during the summer of 2018. I was an awardee of the Goizueta Foundation STEM Research Scholarship Program at Agnes Scott and was accepted in a molecular biology lab under the direction of Dr. Jennifer Larimore. Our project focused on analyzing the morphological effects of antipsychotic medication on cells seen in patients with Rett syndrome and Schizophrenia. Our results showed that there were deficits in the outgrowth of the cells treated with Haloperidol compared to those treated with CBD and Clozapine. As my first formal lab experience, this was a perfect opportunity for me to cultivate my collaborating skills and begin to familiarize myself with some common basic lab techniques. These techniques included running Western blots, immunoblotting, microscopy, and using ImageJ for data analysis. Concluding the program, we presented our data at an REU exhibit hosted by Agnes

Scott that November. Moreover, I presented our findings at ABRCMS, which was my first experience at a national professional conference. Having the opportunity to witness and participate in such a substantive representation of Black women scientists inspired me to continue pursuing research as a career.

During the spring of 2019, I began a new experience working with laboratory rodents which required my first experience in becoming CITI certified in mouse husbandry and handling. For this project, my lab group and I created an original project analyzing the effects of chronic ethanol consumption using the open field test and the forced swim test to analyze anxiety- and depressive-like behaviors. We found that our ethanol-treated mice displayed a trend toward taking longer to perform behavioral assays compared to their wild type littermates. This project strengthened my collaborative lab efforts because we had to ensure that our data was consistent and accurate based on our timed schedule. From this peer-based learning experience, I have been able to perform behavioral assays, analyze recordings, and score data. Towards the end of this project, I also assisted with the euthanasia and decapitation of the mice following IACUC protocol. I later presented this project at the Scotties with Nerves Research Symposium and the Spring Annual Research Conference (SpARC), both hosted by Agnes Scott College in April of 2019.

This past summer, I worked with Dr. Stacey Dutton, my PI, and academic advisor, in collaboration with the Escayg lab at Emory University. Our project looked at the expression of *Scn1a* in various brain regions related to reproductive behavior in mouse models of epilepsy. Using an inverse dark/light cycle room, I investigated the receptive behaviors of mutant female mice in the estrous phase. After recording and scoring the behaviors I conducted statistical

analysis using Excel. Upon completion of the project, we perfused and harvested the brains of our female mice to practice dissecting and cryo-sectioning. This research was concluded by a poster presentation at the 50th Annual Society for Neuroscience conference and at ABRCMS, where I was 1 of 59 awardees for a presentation award in Neuroscience.

Following my undergraduate education, I would like to continue exploring the different mechanisms underlying human neurological disorders in animal models. My recent experiences and success, conducting research and presenting my data with other scientists have prepared me efficiently for the transition in pursuing a graduate degree and conducting research. Based on the many opportunities I have had to understand and explore the field of neuroscience throughout my undergraduate career at Agnes Scott College, my goal is to continue answering biological questions that pertain to the challenges of our time.