

Curriculum Vitae of

Alexia M. Crockett

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Education

Agnes Scott College, Decatur, Georgia

August 2016 – Present, Expected May 2020 graduation Bachelor of Science, Major in Neuroscience

Research Experience

Agnes Scott College, Decatur, Georgia

May 2019 – Present

Behavioral Neuroscience Research Student; Stacey Dutton, PhD, Mentor

This project entitled, Reproductive Behavior in Genetic Models of Epilepsy, analyzed Na_v1.1 expression in brain regions implicated in sexual behavior in female mouse models of epilepsy. I gained competency in generating and quantifying cDNA, scoring mouse sexual behaviors, and running statistical analysis. This project was done in collaboration with the Escayg Lab at Emory University and was concluded by a poster presentation at the Society for Neuroscience conference and the Annual Biomedical Research Conference for Minority Students where it was awarded as a top poster in Neuroscience.

Agnes Scott College, Decatur, Georgia

January 2019 – April 2019

Molecular Biology Research Student; Jennifer Larimore, PhD, mentor

This project entitled, Exploring Mitochondrial Dysfunction in Rett Syndrome and Schizophrenia, analyzed cytochrome c in cell models of Rett Syndrome and Schizophrenia. I analyzed cells using Western blot, RT-PCR and QRT-PCR for quantification. This project resulted in a poster presentation and manuscript following MBoC guidelines. This project was concluded by a poster presentation at Agnes Scott College and was awarded best poster at the Scotties with Nerves Research Symposium.

Agnes Scott College, Decatur, Georgia

January 2019 – April 2019

Biology 251 Research Student; Jennifer Larimore, PhD, mentor

This project, entitled Effect of Ethanol Administration in Male and Female Mice Exhibited in Depressive and Anxiety-Like Behaviors, analyzed behavioral assays of laboratory mice, C57BL/6. I gained knowledge on administering open-field tests, forced swim tests, creating stock solutions and YI recording software. Upon completion of this project I followed proper IACUC euthanasia protocol and confirmed it with decapitation. I was also required to complete CITI certification in mouse handling. This research was followed by two poster presentations at Agnes Scott College during the Spring Annual Research Conference (SpARC) and Scotties with Nerves.

Agnes Scott College, Decatur, Georgia

August 2018 – May 2019

Research Student; Stacey Dutton, PhD, mentor

Analysis of sexual behaviors of crayfish, *Procambarus Clarkii*. This funded research focused on studying the sexual behaviors of crayfish after blocking voltage gated ion channels via injection. In this project, I studied the normal and altered sexual behaviors of mature crayfish. I gained knowledge on administering injections, creating stock solutions, and YI recording software.

Agnes Scott College, Decatur, Georgia

August 2018 – December 2018

Biology 250 Research Student; Stacey Dutton, PhD, mentor

Analysis of behavioral assay on crayfish, *Procambarus Clarkii* and *Pacifastacus Leniusculus*. This semester project entitled, Effects of aggression on anxiety-like behaviors in *Procambarus Clarkii* and *Pacifastacus Leniusculus*, focused on analyzing behavioral responses of crayfish when stress was induced. In this project, I created a submerged plus maze to test the desired behaviors. I gained competency in using YI recording software.

Agnes Scott College, Decatur, Georgia

June 2018 – July 2018

Goizueta Foundation STEM Research Student; Jennifer Larimore, PhD, mentor

This summer project entitled, Improper endosomal trafficking in Schizophrenia impacts cell morphology, focused on analyzing the morphological effects of antipsychotic medications on cells seen in patients with Schizophrenia and Rett Syndrome. I conducted immunoblots and microscopy on cells and gained knowledge of software such as ImageJ. This research was concluded by a poster presentation at the Annual Biomedical Research Conference for Minority Students and at Agnes Scott College REU fall exhibit.

Scientific Presentations

Abawari A., **Crockett A. M.**, Martin H., Sanchez S., Tolman B., Thompson N., Reproductive Behavior in Genetic Models of Epilepsy. Annual Biomedical Research Conference for Minority Students. Anaheim, California. November 15, 2019. Poster Presentation.

Abawari A., **Crockett A. M.**, Martin H., Sanchez S., Tolman B., Thompson N., Female Sexual Behavior in Genetic Models of Epilepsy. Society for Neuroscience. Chicago, Illinois. October 23, 2019. Poster Presentation.

Crockett A. M., Neal L., Zhou W., Exploring Mitochondrial Dysfunction in Rett Syndrome and Schizophrenia. Agnes Scott College Spring Annual Research Conference. Decatur, Georgia. April 23, 2019. Poster Presentation.

Aguilera C., **Crockett A. M.**, Smith C., Soto L., Thompson R., Effect of Ethanol Administration in Male and Female Mice Exhibited in Depressive and Anxiety-Like Behaviors. Spring Annual Research Conference. Decatur, Georgia. April 23, 2019. Poster Presentation.

Crockett A. M., Neal L., Zhou W., Exploring Mitochondrial Dysfunction in Rett Syndrome and Schizophrenia. Scotties with Nerves Research Symposium. Decatur, Georgia. April 5, 2019. Poster Presentation.

Aguilera C., **Crockett A. M.**, Smith C., Soto L., Thompson R., Effect of Ethanol Administration in Male and Female Mice Exhibited in Depressive and Anxiety-Like Behaviors. Scotties with Nerves Research Symposium. Decatur, Georgia. April 5, 2019. Poster Presentation.

Crockett A. M., Perry K., Culbreath H., Effects of Aggression on Anxiety-Like Behaviors in *Procambarus Clarkii* and *Pacifastacus Leniusculus*. Agnes Scott College Biology 250 Lab. Decatur, Georgia. December 4, 2018. Poster Presentation.

Crockett A. M. Improper Endosomal Trafficking in Schizophrenia Impacts Cell Morphology. Annual Biomedical Research Conference for Minority Students. Indianapolis, Indiana. November 16, 2018. Poster Presentation.

Crockett A. M., Webster, J., and Dzvurumi R., Improper Endosomal Trafficking in Schizophrenia Impacts Cell Morphology. Agnes Scott College REU Exhibit Night. Decatur, Georgia. November 13, 2018. Poster Presentation.

Crockett A. M., Webster, J., and Dzvurumi R., Improper Endosomal Trafficking in Schizophrenia Impacts Cell Morphology. Agnes Scott College Goizueta Foundation STEM Scholars Program. Decatur, Georgia. July 25, 2018. Poster Presentation.

Grants and Funding

Advantage Award

\$2184

June 2019 – July 2019

Applied for and received funding for mentored research at Agnes Scott College. The funds of this award covered meals and housing for the summer research project titled, Female Sexual Behavior in Genetic Models of Epilepsy, under Dr. Stacey Dutton.

DuPont Neuroscience Award

\$2200

January 2019 – May 2020

Based on selection criteria, I was interviewed and selected for the Neuroscience Apprenticeship Program funded by DuPont. This award provided funding for the research project focused on analyzing the sexual behaviors of female rodent models of epilepsy. This award also funded GRE preparation and travel costs to conferences.

Goizueta Foundation STEM Scholars Program

\$3200

June 2018 – July 2018

Applied for and received acceptance as a summer research intern for the Goizueta

Foundation STEM Scholars Program at Agnes Scott College. Worked on the project titled, Improper endosomal trafficking in Schizophrenia impacts cell morphology, under Dr. Jennifer Larimore.

Work Experience

Laboratory Student Assistant - Biology Department

August 2019 – Present

As a laboratory assistant I help with preparing the required materials for different lab sections. These tasks include maintaining an organized lab and prep area, preparing solutions, and cleaning glassware and apparatuses. I assist professors and the lab specialist in complying with federal, state, and local laws and guidelines throughout each lab section.

Leadership Experience

Resident Assistant

August 2018 – Present

As a Resident Assistant I am responsible for creating a safe and welcoming environment to support and enhance the personal development of the residential community. I work closely with the college and my residents to maintain a clear and open understanding of the college's policies. In this position I have gained better leadership skills as well as becoming more flexible and dedicated to assist in the changing needs of the residential community.

Honors, Awards, Memberships, and Certifications

Annual Biomedical Research Conference for Minority Students

Presentation Award as a Top Poster

November 2019

Society for Neuroscience Student Member

April 2019 – Present

Scotties with Nerves Award for Best Poster

April 2019

CITI Certified in Mouse Handling in the Laboratory

January 2019

CPR/AED Certified

August 2019

Frances Winship Walters Scholarship

August 2016

Skills

Proficiency in Microsoft Word and PowerPoint, and Apple's Pages and Keynote

Skilled in YI Home recording software