

Samantha Baxley

Athens, GA 30043 | (470) 989-7004 | sb07665@uga.edu

Education

Georgia Gwinnett College
Bachelor of Science in Biology
Concentration: General
Minor: Chemistry
Lawrenceville, GA
May 2021
GPA: 3.9

Advanced-Level Courses: Cell Biology w/Lab, Analytical Chemistry w/Lab, Microbiology w/Lab, Neurobiology, Organic Chemistry I & II w/Labs, Biochemistry w/Lab, Interdisciplinary Application of Biology, Industrial Chemistry, Advanced Biochemistry w/Lab, Genetics w/Lab, Evolution, Ecology w/Lab

University of Georgia
Graduate Student in Neuroscience
Athens, GA
Fall 2022 – Ongoing
GPA: 4.0

Technical Skills

Biocomputing and Bioinformatic techniques: BLAST, NCMI Database, Mega Software, ImageJ, Vista Enhancer Database, Benchling

Biotechnology/Microbiology/Cell Biology related techniques: Gel Electrophoresis (DNA and SDS-PAGE), PCR, DNA extraction, cell culture and plating, smear preparation, Gram staining, aseptic technique, immunofluorescent microscopy staining, microscopy, inverted microscopy, hemocytometry, wound healing assay, media preparation, cell passaging, Bradford assay, Anthrone assay, Plasmid cloning, In Ovo electroporation, In situ hybridization, Cryostat proficient

Chemistry techniques: Titrations, Spectrophotometry, IR spectroscopy, ^{13}C NMR, ^1H NMR, High-performance liquid chromatography, Trolox equivalent capacity analysis

Research Experience

Georgia Gwinnett College
Student Researcher with Dr. Achat-Mendes
Lawrenceville, GA
Fall 2017

- Participated in research to study the effects of nicotine and alcohol on neuronal proliferation, viability, and action potential firing.

- Conducted extensive literature reviews
- Established protocol for conducting the experiment
- Collected and analyzed data using statistical analysis methods
- Presented experimental results to faculty, staff, and peers at STaRS (Science Technology and Research Symposium)

Georgia Gwinnett College Lawrenceville, GA

Student Researcher with Dr. Achat-Mendes & Dr. Hurst-Kennedy

Spring 2020

- Participated in research to find a therapeutic option for patients with glioblastoma, an aggressive form of brain cancer.
- Maintained an organized laboratory notebook with all procedures, data, and relevant notes.
- Conducted an extensive literature review to find a possible therapeutic and understand the mechanisms of action that would influence glioblastoma proliferation, viability, and motility.
- Gave several presentations to students and faculty justifying the selected therapeutic, detailing the experimental design, and discussing the results.
- Wrote a detailed scientific paper on research findings.

University of Georgia - Avraham Lab

Athens, GA

Graduate Student Research Assistant

Fall 2022 – Ongoing

- Developing lineage tracing tools to determine the cellular mechanisms determining the identity of the diverse glia population in the peripheral nervous system using a chick embryo model.
- Using the lineage tracing tools to model and understand disease and neurodegenerative disorders of the peripheral nervous system.

Papers

For Course Requirements

Baxley, S, et al. 2017. Synthesizing a Sulfonamide Derivative: 4-amino-N-(4-methoxyphenyl)benzene sulfonamide.
Requirement for Organic Chemistry II.

Baxley, S. 2017. Determining the Antioxidant Capacity in Sutter Homes Red Wine and Antioxidant Power Juice
Requirement for Analytical Chemistry.

Baxley, S. 2017. The Effects of Coconut Water as a Media for P2K Cells
Requirement for Cell Biology.

Baxley, S. 2017. Determining the Protein and Carbohydrate Profile of Adzuki
Beans for Dog Food.
Requirement for Biochemistry.

Baxley, S. 2018. Identifying and Evaluating Antibiotic Potential of Soil Isolates
Requirement for Microbiology

Baxley, Samantha, et al. 2019. The Effects of Habitat Fragmentation on Brood
Parasite Species and Their Impact of Passerine Host Species
Requirement for Interdisciplinary Applications of Biology

Baxley, S. 2020. Genetic Variation of SARS-CoV-2 in Rio de Janeiro, Brazil.
Requirement for Genetics

Baxley, S. 2020. Metformin's Effect on Glioblastoma Viability, Proliferation,
and Motility.
Requirement for Experimental Methods.

Baxley, S. 2021. Comparing Fish Diversity between Rural and Urban Locations
in Lawrenceville, GA.
Requirement for Ecology

Presentations

For Course Requirements

Baxley, S. 2016. Weekly Journal Article Club with a Focus on Parkinson's
Disease.
Requirement for Introduction to Undergraduate Research.

Baxley, Samantha. 2017, et al. Determining the Antioxidant Capacity in Sutter
Homes Red Wine and Antioxidant Power Juice
Requirement for Analytical Chemistry.

Baxley, Samantha. 2017, et al. The Effects of Coconut Water as a Media for
P2K Cells
Requirement for Cell Biology.

Baxley, Samantha. 2017, et al. Varying Effect of Nicotine and Alcohol on
Neuronal Activity
Requirement for Neurobiology, results presented at STaRs.

Baxley, S. 2019. Developing Single Use Gloves with Antiperspirant Requirement for Industrial Chemistry

Baxley, Samantha, et al. 2019. The Effects of Habitat Fragmentation on Brood Parasite Species and Their Impact of Passerine Host Species Requirement for Interdisciplinary Applications of Biology

Baxley, Samantha, et al 2020. Scientific Approach to a Mediterranean Diet. Requirement for Advanced Biochemistry.

Baxley, Samantha, et al. 2020. Metformin's Effect on Glioblastoma Viability, Proliferation, and Motility. Requirement for Experimental Methods.

Presentations

Non-course Requirements

Baxley, Samantha, et al. 2019. PSI: Chemistry in Biology. Poster Presentation at the Herty Medal Undergraduate Research Symposium at Georgia Gwinnett College

Avraham Lab, Department of Cellular Biology. 2022. Generating Molecular Tools for Lineage Tracing of the Diverse Glia Populations
Poster presentation at the University of Georgia's 2022 Developmental Biology Symposium

Casey Stewart, Samantha Baxley, Tassia Mangetti Gonclaves. Guoyam Zhao and Oshri Avraham. 2023. Generating Molecular Tools for Lineage Tracing of the Diverse Glia Populations (Different version from 2022)
Poster presentation at the University of Georgia's 2023 Developmental Biology Retreat

Work Experience

Georgia Gwinnett College – Access Services

Lawrenceville, GA

Student Assistant

Spring 2014– Spring 2017

- Assisted library patrons by answering general inquiries, checking library materials in and out, and locating materials using the Library of Congress Classification
- Demonstrated to library patrons how to use library equipment such as copier, printer, etc.
- Answered phone calls at the GGC Circulation desk and routed them to relevant departments

- Maintained proper shelving order and organization of library materials
- Maintained the cleanliness of the library

Georgia Gwinnett College – Biology Department Lawrenceville, GA
Peer Supplemental Instructor **Fall 2018-Spring 2020**

- Developed and executed lesson plans on subject-specific topics to aid in facilitating student understanding of the material through group activities.
- Utilized educational facilitation techniques to demonstrate to students how to find information independently
- Created and shared unique hand-outs and activities to facilitate learning of biology material
- Provided a safe learning environment to help students reduce anxiety or fear in their academic work, increase their self-confidence, and foster self-esteem.
- Provided resources and information for tips on being a successful college student

Jimmy Johns Cumming, GA
Assistant Manager **Fall 2015 – Fall 2021**

- Provided exceptional customer service to 100-200 customers a day.
- Addressed and resolved customer concerns and complaints
- Managed a team of 3-10 employees during a shift
- Divided and delegated tasks to employees
- Monitored and evaluated employee job performance, and recommended promotion or termination
- Ensured health department policies and procedures are being executed properly
- Collaborated with a management team to ensure all policies and procedures were following brand standards.

University of Georgia Athens, GA
Teaching Assistant **Spring 2023 - Ongoing**
CBIO2210L Anatomy and Physiology Lab II

- Developed and presented lectures from lab material.
- Supervised and facilitated student activities and organ dissections.
- Graded student work
- Responded to student correspondences promptly.
- Cooperated and coordinated with a team of two other co-TAs to perform all job duties.

