BRIANNA M. GARCIA

Brianna.garcia@uga.edu

Business Address:
140 Cedar St – Mailbox #200
Athens, GA 30602
(706) 542-2626

Home Address:
135 Cross Creek Pl, Apt #2
Athens, GA 30605
(626) 905-9945

Education

Chemistry Graduate Research Assistant, University of Georgia, Athens, GA **Expected 2022**
Research Interest(s): Unknown metabolite and glycan identification in *C. elegans* Congenital Disorders of Glycosylation (CDG) mutants. Utilizing the incorporation of NMR and mass spectrometry technologies for compound structure elucidation. Analysis of *E. coli* growth and lyophilization properties and the role this plays in *C. elegans* phenotype and metabolic profile.
Advisors: Dr. Jonathan I. Amster; Co-advisor: Dr. Arthur S. Edison

B.S. in Chemistry (Biochemistry option), California State Polytechnic University, Pomona, CA **2017**
Thesis Title: *Design and Optimization of Raman Spectrometer and Analysis of Liquid and Solid-State Samples*
Thesis advisor: Dr. Timothy Corcoran
Graduated GPA: 3.44/4.00

A.S. in Biological & Physical Science (& Mathematics), Citrus College, Glendora, CA **2012**
A.S. in Administration of Justice, Citrus College, Glendora, CA **2012**
A.A. in Language Arts, Citrus College, Glendora, CA **2012**
Graduated GPA: 3.37/4.00

Awards

Chemistry Departmental Travel Award **2018**
Glycoscience Training Program Fellowship, CCRC **2018**
ACS 2017 Undergraduate Award in Physical Chemistry **2017**
Dean's Honor List for Academic Excellence **2016 / 2017**

Presentations

Poster Title: Metabolomic Profiling of *Caenorhabditis elegans* Using Capillary Electrophoresis Mass Spectrometry (CE-MS)
Author(s): Brianna M. Garcia; Patience Sanderson; Franklin E. Leach III; Arthur S. Edison; I. Jonathan Amster
Presented at: American Society of Mass Spectrometry 2018, San Diego, CA and 2018 Metabolomics Conference, Seattle, WA

Research Experience

University of Georgia Department of Chemistry Graduate Research Assistant **2017-present**
Research involves using UHPLC and high resolution Orbitrap mass spectrometry to investigate and identify unknown metabolites and glycans in both wild type (laboratory strain N2) *C. elegans* and specific mutants of interest, specifically CDG mutants, to improve our understanding of metabolic pathways and potentially associated specific molecules to corresponding diseases.

Undergraduate Research Assistant, California State Polytechnic University, Pomona, CA **2016-2017**
Research included the design, construction and optimization of a Raman spectrometer using a 785 nm laser to allow for near-IR (NIR) analysis of both solid (under microscope) and liquid (in cuvette) samples in a single Raman spectrometer set-up. Liquid benzene, L-tyrosine and hexamethylbenzene crystals were used to determine the instrumental design viability.

Teaching Experience

General Chemistry Spring 2018 Final Exam Proctor **2018**

Professional Associations

Member of the American Chemical Society (ACS) **2017-present**
Member of the American Society of Mass Spectrometry (ASMS) **2018-present**
Member of the Metabolomics Society **2018-present**
Member of the Metabolomics Association of North America (MANA) **2018-present**

Academic & Community Service

Assist with UGA prospective Chemistry graduate student visit **02/2018 - 03/2018**
UGA Young Dawgs summer mentor to high school student **06/2018-present**
Member of UGA Chemistry Graduate Student Organization (CGSO) **2017-present**