**Gustavo Adolfo Garriga Garcia**

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| **EDUCATION** |

**M.A.** Biology Fisk University, Nashville, TN Graduation date: Summer 2020

**B.S.** Biology and Chemistry, magna cum laudeUniversity of Texas at Arlington May 2018

**Minors**: Psychology and Spanish ****

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| **RESEARCH** |

**Research Interests**

My research interests include neuroscience and epidemiology.

**Research Experience**

**Graduate Research Assistant,** Fisk-Vanderbilt Master to PhD Bridge Program, Department of Life and Physical Sciences, Dr. Brian Nelms

***Fisk University***, Fall 2018 – present

The project goal is to investigate genes involved in dopamine signaling in *C. elegans.*

**National Science Foundation - Research Experience for Undergraduates:** “The Ecology of Human-Dominated Landscapes,”Department of Microbiology, Dr. DJ Ferguson

***Miami University***, Summer 2017

The project goal was to assess the minimal number of genes required for the methanogen *M. acetivorans* NB34 to gain the ability to use the quaternary amine glycine betaine as a direct substrate.

**Undergraduate Research Assistant,** Arlington Undergraduate Research-based Achievement for STEM, Department of Chemistry and Biochemistry, Dr. Frank W. Foss

***The University of Texas at Arlington,*** Fall 2015

The project goal was to measure the binding of the vancomycin antibiotic onto synthetic bacterial cell wall, in order to understand the mechanisms of bacterial resistance and how to overcome it.

**Undergraduate Research Assistant,** Department of Biology, Dr. Shawn Christensen

***The University of Texas at Arlington*,** Spring 2015

The project goal was to identify the structure and function of regions within the R2 elements and the mechanism by which they replicate.

**Conferences and Professional Presentations**

**Garriga, G.A.**, Creighbaum, A. and Ferguson, D.J. Expanding the substrate range of methanogens. SACNAS Abstracts. Poster presentation to be delivered at the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science conference, San Antonio, TX., October 2018.

**Garriga, G.A.**, Nelms, B. Quantitative study of dopaminergic phenotypes via computer-aided video analysis.

GSA Abstracts. Poster presentation to be delivered at the 20th Annual Fisk Research Symposium,

Nashville, TN., April 2018.

**Garriga, G.A.**, Nelms, B. Quantitative study of dopaminergic phenotypes via computer-aided video analysis.

GSA Abstracts. Poster presentation to be delivered at the 22nd International *C. elegans* Conference,

Los Angeles, CA., June 2019.

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| **TEACHING EXPERIENCE** |

**Peer Academic Leader;** Freshman Seminar, University College Programs, The University of Texas at Arlington; August 2015-May 2018

* Taught, mentored, and assisted students’ development in their freshman year
* Promoted and encouraged engagement on residence halls activities
* Served as a resource in the Science learning community in residence halls
* Developed lesson plans and activities
* Planned specific bi-weekly objectives for students to accomplish

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| **EMPLOYMENT** |

**Public Health Data Intern**;City of Grand Prairie, Environmental Services **ǀ** Environmental Quality Division, Vector Control; May 2018-July 2018

* Organized and screened vector data archives from 2002 – 2017
* Set up Gravid and BG traps and processed mosquito samples collected for analysis
* Analyzed data sets to determine mosquito distribution and counts in Grand Prairie per week, month and year (2002 – 2018).
* Assessed whether there was a relationship between environmental variables (rain, temperature and humidity data obtained from NOAA) and mosquito counts.
* Used maps to determine the areas with higher vector-borne disease incidence per year
* Shadowed environmental spill inspections, pool inspections, and food inspections
* Delivered violation notices to establishments
* Interacted with the public with environmental complaints
* Assisted technicians in the field
* Sprayed areas where West Nile Virus mosquitoes tested positive

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| **AWARDS & HONORS** |

* Poster Award, April 2018: Quantitative study of dopaminergic phenotypes via computer-aided video analysis, 20th Annual Fisk Research Symposium.
* SACNAS Travel Scholarship: competitive award to attend SACNAS 2018 conference, 2018.
* NSF BIO REU Travel Grant: competitive award to attend and present at SACNAS 2018 conference, 2018.
* UT Arlington Academic Achievement Scholarship for Continuing Students: award for good academic performance, 2015-2018.

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| **SKILLS** |

* Site-directed mutagenesis
* Plasmid isolation and transformation
* Polymerase chain reaction amplification
* Sanger sequencing and analysis
* DNA isolation and transformation
* Gibson assembly
* Agarose gel electrophoresis
* General bacterial culturing and media preparation
* Syntheses of peptide targets for the measurement of vancomycin binding and affinity via mass spectrometry
* Set-up, monitoring, and purification of gram-scale organic reactions
* Monitoring of organic adducts via thin-layer chromatography
* Purification of highly polar peptide products via flash column chromatography
* Experience in safety laboratory practices and good notebook keeping
* Disposal of hazardous waste and preparation of organic staining reagents
* Genotyping
* Bi-lingual
* Proficient in Microsoft Word, Power Point, and Excel
* Currently learning Python and R