Guadalupe Reynoso

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www.linkedin.com/in/guadalupe-reynoso

Objective

Highly driven graduate student preparing to graduate with my master's degree and looking for employment in the field of microbiology to apply the skills I have obtained through my years of work in a research setting.

Education

Master of Science, Biological Sciences, Expected December 2021
Virginia Tech, Blacksburg, VA

Bachelor of Science, Biology; Medical Spanish Minor, May 2018
James Madison University, Harrisonburg, VA

Relevant Skills

PCR	Gel electrophoresis and imaging	XenoGI
qPCR	qRT-PCR	BLAST
Bacterial culturing and isolation	Media preparation	MarkerFinder
Transformation	*In vitro* and *in planta* assays	R
RNA extractions	Gel extraction and purification	ViralRecall
Conjugation	RNA-Seq analyses	QIIME2
Chromosomal gene deletions	FastTree	Biopython

Professional Experience

Virginia Tech, Blacksburg, VA

Graduate Research Assistant **July 2019 - Present**

Project: Comparative genomics analysis of plant pathogens and other Enterobacterales

- Identification of genomic islands from 50+ selected genomes
- Genomic analysis using XenoGI and Python on ARC supercomputer
- Interpretation of results outputs through the creation of phylogenetic trees

Project: Elucidation of the *in planta* role of the global regulator Lrp from the bacterial phytopathogen *Pantoea stewartii* subsp. *stewartii*

- Creation of gene deletion and revertant strains
- *In vitro* and *in planta* assays to observe for a phenotype
- Optimization of *in planta* RNA extraction methods for RNA-Seq of the *lrp* deletion

Graduate Teaching Assistant **Fall 2021**

- Teaching 48 students proper technique in a microbiology lab and grading assignments

Sugaright, Harrisonburg, VA

Lab Technician **September 2018 – May 2019**

- Calibration of laboratory equipment and laboratory maintenance
- Product analysis to establish predicted outcomes for various inputs
- Establishment of protocols for lab tests
- Training employees in aseptic technique and proper use of laboratory equipment

James Madison University, Harrisonburg, VA

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Research Assistant **May 2018 – September 2018**

Projects: Sequence analysis of samples obtained from Lake Shenandoah and Lake Erie.

- Sequence analysis using QIIME2 bioinformatics pipeline

Undergraduate Research Assistant **September 2016 – May 2018**

Projects: Characterization of bacteria isolated from Lake Shenandoah and Lake Erie.

- Water sample collection, isolation, and characterization of bacteria
- Co-culture experiments of isolates with *Microcystis aeruginosa*
- Development of technique for algal culture cell counts

Research Publications

Hoke AK, **Reynoso G**, Smith MR, Gardner MI, Lockwood DJ, Gilbert NE, Wilhelm SW, Becker IR, Brennan GJ, Crider KE, Farnan SR, Mendoza V, Poole AC, Zimmerman ZP, Wurch LL, Steffen MM. 2021. Genomic signatures of Lake Erie bacteria suggest interaction in the *Microcystis* phycosphere. PLOS ONE. 16(9): e0257017. doi: https://doi.org/10.1371/journal.pone.0257017

Reynoso G, Smith MR, Holmes CP, Keelan CR, McGrath SE, Alvarez GH, Coceano MA, Eldridge KA, Fried HI, Gilbert NE, Harris MT, Kohler LR, Modolo CM, Murray EA, Polisetti SM, Sales DJ, Walsh ES, Steffen MM. 2019. Bacterial community structure and response to nitrogen amendments in Lake Shenandoah (VA, USA). Water Sci Technol. 80 (4): 675–684. doi: https://doi.org/10.2166/wst.2019.311