

Pedro C. Martínez Barbosa

Carretera #155 Km 59.8, Bo. Pugnado Adentro, Vega Baja, Puerto Rico, 00693

Cell: 787-515-0286 | E-mail: pedro.martinez12@upr.edu

Education

Bachelor of science in Microbiology, University of Puerto Rico in Arecibo

- Cumulative GPA: 3.55
- Expected graduation date: May 2019

Research Experience

REU student researcher | May 2017 – August 2017

"From Genomes to Phenomes — Exploring Function Across Scales", Clemson University, SC

"Characterization of an uncultured marine Bacteroidetes from Chesapeake Bay"

- Combined molecular biology and bioinformatics to characterize and analyze the abundance and gene expression patterns of uncultured marine bacteria under different environmental conditions.
- Worked with Dr. Barbara Campbell as part of a 10-week NSF-funded REU program.
- Performed bioinformatics work such as genome annotation, primer design for sequences of interests, and differential statistical analysis of environmental samples using the R environment.
- Amplified and cloned sequences of interest and prepared media for culturing transformed cells.

Undergraduate research assistant | August 2016 – December 2016

Department of Biology, University of Puerto Rico in Arecibo, PR

"Identification of a Lactase Persistence Polymorphism C-13,910T in a Small Sample of the Puerto Rican Population"

- Made use of molecular biology techniques to investigate the prevalence of the C-13,910T lactase persistence polymorphism in the racially diverse Puerto Rican population under the mentorship of Mari L. Acevedo, PhD.
- Collected, amplified, and purified genomic DNA samples using Polymerase chain reaction (PCR) protocols.
- Carried out a Restriction fragment length polymorphism (RFLP) analysis using *ApaI* restriction enzymes to fragment the purified PCR product at the polymorphism region.
- Prepared agarose and acrylamide gels for electrophoresis of PCR product fragments.

Work Experience

Veterinary Laboratory Assistant | November 2017 – present

Department of Biology, University of Puerto Rico in Arecibo

- Responsibilities include scheduling sterilization and vaccination appointments, taking care of and watching after animal patients, organizing and cleaning the lab, and attending to the needs of students and faculty during labs.

Skills

Laboratory work

- Experienced performing polymerase chain reaction (PCR), plasmid extraction and purification, restriction digest, and gel electrophoresis.
- Proficient in culturing, isolating and identifying fungi and bacteria.

Bioinformatics

- Differential statistical analysis using the DESeq2 package in the R environment.
- Primer design using MEGA7 software and the online OlygoAnalyzer 3.0 tool.
- Genome annotation using the online the Rapid Annotation using Subsystem Technology (RAST) service.

Presentations

“Identification of a Lactase Persistence Polymorphism C-13,910T in a Small Sample of the Puerto Rican Population” | December 2016

- Poster presenter at the Biological Sciences Research Expo hosted by the Department of Biology at the University of Puerto Rico in Arecibo, Arecibo, PR.

“Characterization of an uncultured marine Bacteroidetes from Chesapeake Bay” | July 2017

- Poster presenter at the Clemson University Undergraduate Research Symposium at Clemson University, Clemson, SC.

Awards

Clemson University Undergraduate Research Symposium Best Poster Award | July 2017