

Xavier D. Ortiz Torres

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EDUCATION

University of Puerto Rico, Rio Piedras Campus, San Juan, Puerto Rico August 2017 to current
Bachelor of Natural Sciences, Interdisciplinary Program in Natural Sciences

With a Second Concentration in Humanities, Theater Program

University of Puerto Rico, Cayey Campus, Cayey, Puerto Rico August 2015 to 2017

Bachelor of Natural Sciences, Biology Program

Luis Muñoz Marín High School, Barranquitas, Puerto Rico Graduated on May 2015

High School Diploma, Academic Excellence

Escuela S.U. Ramón T. Rivera, Barranquitas, Puerto Rico Graduated on May 2012

Intermediate School Diploma, Academic Excellence

RESEARCH EXPERIENCE

Undergraduate Research Apprentice November 2018 to 2019

Project Title: Hispanic Population Knowledge and Attitudes Towards Transgender Individuals

Principal Investigator: Josefina Romaguera, MPH, MD

Mentor: Sofía M. Muns Aponte, BS

Task: Construct part of the questionnaire, literary review, and help with the consent form and the proposal.

Objective: Assess the level of education, knowledge and attitudes of our population regarding transgender individuals.

Undergraduate Research Apprentice August 2018 to 2019

Project Title: Knowledge and attitudes about transgender attention in medical students at the University of Puerto Rico, Medical Sciences Campus

Principal Investigator: Josefina Romaguera, MPH, MD

Mentor: Sofía M. Muns Aponte, BS

Task: Construct part of the questionnaire, literary review, and help with the consent form and the proposal.

Objective: The objective of this study is to evaluate the knowledge and attitudes of the medical students of UPR-MSM regarding the medical care of the transgender community. To fulfill this purpose, the study requires the participation of medical students of the University of Puerto Rico, Medical Sciences Campus, School of Medicine (UPR-MSM, SOM). The information obtained from this questionnaire will serve as a tool to determine the knowledge and prejudices in medical students regarding the medical care of these patients.

Undergraduate Research Apprentice

January 2016 to May 2016

Project Title: Structural and Functional Annotation of Mycobacteriophage LastHope

Program: SEA-PHAGES Program (Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science)

Mentor: Edwin Vázquez

Graduate student: Maricelli Fernández

Task: phagesdb, BLAST, DNA Master

Objective: Gene annotation of *Mycobacterium* phage LastHope such as Start Stop Coordinates, Coding Potential, Shine Delgarno, Start Choice Source, etc.

University of Puerto Rico, Cayey Campus, Department of Biology

Undergraduate Research Apprentice

August 2015 to December 6, 2016

Project Title: Isolation and Characterization of Mycobacteriophage Gallus from Soils of Puerto Rico.

Program: SEA-PHAGES Program (Science Education Alliance – Phage Hunters Advancing Genomics and Evolutionary Science)

Mentor: Edwin Vázquez.

Graduate student: Maricelli Fernández

Task: planting mechanism, purification, empirical test, HTPL, PFU, gel electrophoresis, DNA extraction, enzyme restriction and proteomics

Objective: Find bacteriophages that can infect *Mycobacterium smegmatis* by digging soil samples that are susceptible to the host.

University of Puerto Rico, Cayey Campus, Department of Biology

PAPERS:

Effectiveness of the "Car Breathalyzer" on the behavior of drunk drivers in the short and long term

June 2018

University of Puerto Rico, Rio Piedras Campus,

Authors: Xavier D. Ortiz Torres and Natalia Vélez Robles

One of the authors of the investigation in the effectiveness of the Car Breathalyzer through a literary review. Our objectives were to determine if the ignition blocking device is sufficient to modify the behavior of drunk drivers in the long term, discover the degree of effectiveness of short- and long-term ignition interlock devices, and analyze the methods, if any, that could improve the effectiveness of ignition blocking devices. The information selected was through the consult international databases such as PsyINFO, Ebsco, using keywords and phrases such as "effectiveness", "ignition interlock device", "therapies for alcoholic patients", "recidivism", "psychological therapies", among others. R

**“The Effects of Predation During Early Stages
of Development of *Phaseolus vulgaris***

May 2016

University of Puerto Rico, Cayey Campus, Department of Biology

Authors: Xavier D. Ortiz Torres, Grethel N. Cartagena Santana,
Gabriel Pastrana, Jomarías Gómez

One of the authors of the paper and the investigation with *Phaseolus vulgaris* commonly known as the Garden Bean is an annual herb. The experiment designed for this plant was to measure and analyze, in a period of four months, the effects of predation on a growing plant and how it affects its general morphology and development. This was done, by constructing two gardens: the first one was the experimental group which was in an area with little protection from animals and people, the other one was the control group which was in a restricted area with high amounts of protection. The results for this experiment were that the experimental group, which suffered from predation by green iguanas had a lower survival rate (77%) in comparison with the control group which had a survival rate of 90% because it didn't suffer from predation or the stress caused by predation.

**“Morphologic and Genomic Characterization of
Mycobacteriophages Isolated from Tropical Soils of Puerto Rico”**

May 9, 2016

University of Puerto Rico, Cayey Campus, Department of Biology

Attributed as author in the abstract of “Morphologic and Genomic Characterization of Mycobacteriophages Isolated from Tropical Soils of Puerto Rico”. These abstract focuses on the characterization and isolation of mycobacteriophage found using tropical soils from different students, in which includes the purification, enrichment, High Titer Phage Lysate (HTPL), DNA digestion, and gel electrophoresis to later determine and annotate the genomic sequence of the chosen mycobacteriophage that showed novel function. This sequence presented transfer RNAs, repetitive elements, and similar genome organization in some mycobacteriophage.

PRESENTATIONS:

Speaker, SEA-PHAGES Symposium
University of Puerto Rico, Cayey Campus

May 5, 2016

Presented results of the second part of SEA-PHAGES Program of the bioinformatically gene sequences studied of *Mycobacterium Gallus* and *Mycobacterium LastHope*.

Speaker, SEA-PHAGES Symposium
University of Puerto Rico, Cayey Campus

December 3, 2015

Presented results of the first part of SEA-PHAGES Program of the mycobacterium phage found, *Mycobacterium Gallus*.

LEADERSHIP EXPERIENCE

Post hurricane Maria Collection Center

September 2017 to May 2018

After the hurricane Maria, a group of youths started to collect food and items of need to give them everyone who needed it. I was part of the volunteer Leaders. Our job was to Sort, pack, receive and send donations at the Parish of San Antonio de Padua

Jóvenes por Haití

October 2016

On October of 2016 and with the help of two classmates of the University of Puerto Rico at Cayey Campus, we begin a community initiative that arises from young people and the need Haitians after the passage of Storm Matthew. I was part of the founding team, and I helped to Sort, pack, receive and send donations

Pastoral Juvenil Jeremias

November of 2014 to current

Is a group of young people from the parish of San Antonio de Padua. We do Workshops, charity events, and other activities for the community of Barranquitas, Puerto Rico.

LANGUAGES, TALENTS AND SKILLS

- Fluent in written and spoken Spanish and English.
- Computer skills including Microsoft Office (Word, PowerPoint, Publisher, Excel), and Adobe Illustrator
- Team builder, critical thinker, problem solver, quick learner and good communication skills
- Writing skills including creative and scientific writing.
- Skills in acting, production and writing for theater.

MEMBERSHIPS, HONORS AND AWARDS

- **Certificate of Academic Excellence, Luis Muñoz Marín High School** May 2015
- **First place in competition of spontaneous public speaking at national level in the week of the Spanish Language dedicated to Alejandro Tapia y Rivera** March 2015

WORK EXPERIENCES

FIESTA II

April 2018- present

This is a project of the Office of Quality of Life at the University of Puerto Rico, Río Piedras Campus and the Commission for Traffic Safety (CST).

Position: Student facilitator

Tasks: Talks, creation and assembly of articles for the magazine FIESTATIMES and infographics

OTHER/ PERSONAL DETAIL

- Theater
- Creative Writing
- Readings
- Music