

## Biographical sketch

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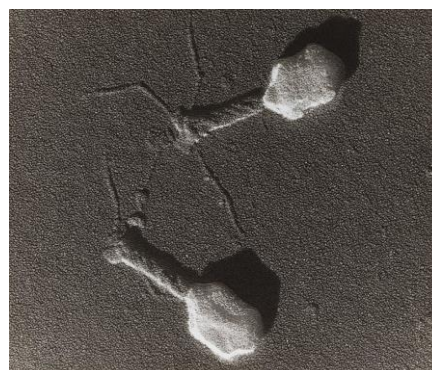
Yadeliz A. Serrano Matos

### **Current Status**

Undergraduate student

Dept. of Biology, UPR – Rio Piedras Campus

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### **Education:**

2015-present University of Puerto Rico, Rio Piedras Campus, Puerto Rico

2020 Bachelor of Natural Sciences, Major Biology (expected)

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### **Current research interests:**

My current research consists in the characterization of lysogenic enterophages, from pristine environments and determine their host-range against different Enterococci spp. The hypothesis is that lysogenic phages may be the most important vectors of horizontal gene transmission (HGT) at least amongst members of the same bacterial genera.

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### **Research Experience:**

#### **August-July 2018**

Summer Research Internship Program, Charlottesville, Virginia. PI: Dr. Tom Loughran, Large Granular Lymphocyte Leukemia: The Response in Signaling Pathways of TL-1 Cells Treated with Cytokines IL-6, IL-7 and IL-9.

#### **February-March 2018**

Visiting student at University of Tennessee, Knoxville. PI: Dr. Terry C. Hazen, Whole Genome Sequencing of none-clinical isolates of Enterococcus spp. Training for library preparation in Illumina Miseq System.

#### **March 2017 –present**

Broad host-range lysogenic enterophages isolated from soil and water from Puerto Rico: Possible roll in genetic evolution. PI: Dr. Gary Toranzos.

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### **Honors & Awards**

Post-Hurricane Maria Aid for Researchers Grant Program, February 2018.

National Society of Collegiate Scholars, February 2017.

Golden Key International Honour Society, April 2017.

Dean List of Honor, August 2016.

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**Special Training:**

August-July 2018 - Western blot techniques – tools and applications.

January 2018 - Whole Genome Sequencing of bacterial genomes – tools and applications.

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**Professional Societies:**

American Society for Microbiology, 2017

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**Presentation at local meetings:**

Serrano, Y., Oston, K., Feith, D., Wang, T. and Loughran, T. Cell signaling in T-LGL leukemia cells treated with cytokines IL-2, IL-6, IL-7, IL-9 and IL-15. Symposium SRIP, University of Virginia, Knoxville, Virginia (2018) (Oral).

Serrano, Y., Gonzales, A., William, D., Hazen, T., and Toranzos, G. Characterization of Enterococcus spp. isolates from pristine areas in El Yunque Forest and the presence of virulence and resistance genes. 52th Junior Technical Meeting (JTM) and the 37<sup>th</sup> Puerto Rico Interdisciplinary Scientific Meeting (PRISM) (oral)

**Presentation at national meetings:**

Serrano, Y., Gonzales, A., Rivera, A., and Toranzos, G. Broad host range lysogenic enterophages isolated from soil and water from Puerto Rico: Possible role in evolution – ASM General Meeting, Atlanta, Georgia (2018) (Poster presentation and oral).

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**Skills**

**Laboratory:** Aseptic techniques, sterilization and bacteriology procedures. Bacterial culture, bacteriophage induction, DNA extraction from environmental samples, isolation, purification and quantification of DNA, Transfections of cells, PCR, DNA electrophoresis, Whole Genome Sequencing Library preparation, WGS data analysis, Cell culture of eukaryotic model cells and Western blot assay.

**Computational:** Proficient in Microsoft Word, Power Point, Excel and Mendeley.

**Statistics:** R (statistic software)

**Languages:** English and Spanish.

