

# LORRAINE N. VÉLEZ TORRES, MPH

PO Box [REDACTED] Yauco, PR 00698 | lorraine.velez1@upr.edu | [REDACTED]

## EDUCATION

*University of Puerto Rico, Medical Sciences Campus, San Juan, PR, 2016-Present* Ph.D. Student in Microbiology, Area of Specialization: Mycology and Aerobiology

*University of Puerto Rico, Medical Sciences Campus, San Juan, PR, 2014-2015* MPH with concentration in Epidemiology, Magna Cum Laude (GPA 3.83)

*University of Puerto Rico, Mayagüez Campus, PR, 2009-2014* Double B.S. in Industrial Microbiology and Biology, Magna Cum Laude (GPA 3.68)

## AWARDS and HONORS

- Academic Excellence, Biomedical Sciences Deanship, 2019
- ASM Research Capstone Fellowship 2019 Awardee
- ASM Travel Award 2019
- Student Scholarship Awardee for Caribbean Strong: Building Resilience with Equity Meeting, February 27-March 1st, 2019
- Selected as Participant of The Art of Grantsmanship: A Comprehensive online Course, February 2019
- Yale Ciencia Academy (YCA) 2019 Fellow, December 2018
- Academic Excellence, Biomedical Sciences Deanship, 2018
- Gold Star Member, Graduate Students Association, 2018
- Travel Award, The Leadership Alliance (Brown University), 2017
- Association of University of Puerto Rico Alumni and Friends Above (UPRAA) Ford Fund's STEM Scholarship, 2016
- ABRCMS Outstanding Presentation Awardee in Microbiology: Microbial Physiology, 2014
- RISE Program Undergraduate Student, UPR-Mayagüez Campus, 2014-2015
- Research Excellence, Dr. Alejandro Ruiz Acevedo Award UPRM, 2014
- Academic Excellence, UPR-Mayagüez Campus, 2012/2013/2014
- Puerto Rico Louis Stoke Alliance for Minority Participation (PR-LSAMP) "Mentored Undergraduate Research Experience" Summer Grant, 2012

## RESEARCH and/or ACADEMIC EXPERIENCE

*Doctoral Research:* Department of Microbiology and Medical Zoology, (Dr. Bolaños), 2018-Present

- Currently working in my research thesis in the area of Mycology and Aerobiology of Allergens. I'm studying the effect of Hurricane María in the indoor concentration of fungi in 60 houses of Bda. Figueroa in San Juan, Puerto Rico. Identification of cultured fungi through microscopy and molecular techniques.

*Doctoral Research Rotation:* Centers for Disease and Control Dengue Branch in San Juan, PR, (Dr. Muñoz), 2017-2018

- Worked with the Molecular Diagnostics Research Team and participated in several research projects including: protocol development for arbovirus DNA library preparations for sequencing, optimization of molecular diagnostics assays for arboviruses, and basic bioinformatics.

*Work Research:* Comprehensive Cancer Center of Puerto Rico, (Dr. Colón), 2016

- Worked in The Youth Prevention Program (YPREV) in the development of prevention strategies and evidence-based interventions for HIV and substance abuse in the MSM 18-24 years students of the UPR-Mayagüez Campus and communities in the western region of Puerto Rico.

*Master's Research:* Department of Biostatistics and Epidemiology, University of Puerto Rico-Medical Sciences Campus, (Dr. Reyes and Dr. Suárez), 2015

- Worked in the determination of the health status of the residents in Yabucoa, Puerto Rico by identifying the risk factors affecting their quality of life through a survey and statistical analysis.

*Master's Research:* Department of Biostatistics and Epidemiology, University of Puerto Rico-Medical Sciences Campus, (Dr. Nazario and Dr. Rosario), 2014-2015

- Worked in Eastern Caribbean Health Outcomes research Network (ECHORN) in the recruitment of participants for the study, obtaining informed concern, carrying out the health questionnaire to participants and data entry.

*Undergraduate Research:* Department of Biology, University of Puerto Rico-Mayagüez Campus, (Dr. Cafaro), 2011-2014

- Antifungal Secondary Metabolite Production of Actinobacteria Associated with the Termite *Nasutitermes costalis*: Observed the production of antimycotic secondary metabolites in Actinobacteria that inhibit entomopathogenic fungus growth and be able to measure the inhibition zone. Then, the antifungal capacity of Actinobacteria was tested against *Candida albicans* and *Candida guilliermondii* through bioassays and growth curves of the yeast in the presence of Actinobacteria strains.

## **RESEARCH INTERESTS**

- My research interests include *Mycology* and *Aerobiology of Outdoor and Indoor Allergens*. I'm also interested in evaluating the possible *health effects (asthma, allergic rhinitis, etcetera) of indoor mold exposure* after events like a hurricane, flooding or humidity damage. In addition, *characterization and identification of the fungal indoor microbiome* (through *Next Generation Sequencing* or *MALDI-TOF MS*) in severely moisture damaged homes versus homes with no damage is also part of my research concerns.

## **PRESENTATIONS**

- Lorraine N. Vélez Torres. Poster Presentation: Indoor Mold Amplification as a Risk Factor for Triggering Children's Asthma in a Low-Income Community in Puerto Rico. May 2019. Puerto Rico Clinical Research Summit: Connecting the World.
- Lorraine N. Vélez Torres. Oral Presentation: MALDI-TOF MS for Filamentous Fungi Identification. 2018. Graduate Seminar MICR-8580, Microbiology Department of UPR-Medical Sciences Campus.
- Lorraine N. Vélez Torres. Determination of the Inhibitory Capacity of Actinobacteria Against *Candida albicans* and *Candida guilliermondii*.
  - (Oral Presentation). 2014. 4<sup>th</sup> Undergraduate Research Symposium in Biology, UPR-Mayagüez Campus.
  - (Poster Presentation). 2014. XV Symposium of Mycology of the Puerto Rican Mycology Society, Turabo University at Gurabo, PR.
  - (Poster Presentation). 2014. SACNAS 2<sup>nd</sup> Annual Symposium: Science and Technology, Innovation Through Research at Luis de Celis Building, UPR-Mayagüez Campus.
  - (Poster Presentation). 2014. 7<sup>th</sup> NEA Science Day, UPR-Mayagüez Campus.
  - (Poster Presentation). 2013. Puerto Rico Society of Microbiologists 2<sup>nd</sup> Student Research Symposium: Passing the Torch of Research and Ethics to the Next Generation, UPR-Arecibo Campus.

- Lorraine N. Vélez Torres. Antifungal Secondary Metabolite Production of Actinobacteria Associated with the Termite *Nasutitermes costalis*.
  - (Poster Presentation). 2013. Annual Biomedical Research Conference for Minority Students (ABRCMS) at Nashville, Tennessee.
  - (Poster Presentation). 2013. 37<sup>th</sup> ACS Senior Technical Meeting at Courtyard Marriot Aguadilla, PR.
  - (Oral Presentation). 2013. 3<sup>rd</sup> Undergraduate Research Symposium in Biology, UPR-Mayagüez Campus.
  - (Poster Presentation). 2013. XVIII Sigma Xi Poster Day at Chemistry Building, UPR-Mayagüez Campus.
  - (Poster Presentation). 2013. XIV Symposium of Mycology of the Puerto Rican Mycology Society, UPR- Aguadilla Campus.
  - (Poster Presentation). 2013. 1<sup>st</sup> Puerto Rico Society of Microbiologists Symposium: Passing the Torch of Research and Ethics to the Next Generation, Inter American University of Puerto Rico.
  - (Poster Presentation). 2012. 5<sup>th</sup> NEA Science Day, UPR-Mayagüez Campus.
  - (Oral Presentation). 2012. 2<sup>nd</sup> Undergraduate Research Symposium in Biology, UPR-Mayagüez Campus.

### **OUTREACH EXPERIENCE and/or COMMUNITY SERVICE**

- Mycology Presentation for Montessori Level 2 students at Delia Dávila Pagán School in Toa Baja, PR. April 2019.
- Microbiology and Research Presentation to students from the Hispanic Center of Excellence of the School of Medicine. April 2019.
- Organization of Gifts Recollection for the Operation Christmas Child Movement. Microbiology Department of UPR-MSU, November 2018.
- Microbiology Presentation for 5<sup>th</sup> grade students at Eleanor Roosevelt Elementary School in San Juan, PR. November 2018.
- Participated as Facilitator of the Microbiology Department for the Exposure to Medicine & Biomedical Sciences activity for the Hispanic Center of Excellence of the UPR- School of Medicine. May 2018.
- Facilitator for the Biomedical Sciences Open House of UPR-MSU. 2017.
- Visited children admitted at the Pediatric Unit of San Antonio Hospital at Mayagüez, PR. Bringing balloons, toys and support to hospitalized children and their families. 2014.
- Advised middle school students about the Microbiology study and research field, defining Microbiology and its career options. Mayagüez, PR. 2014.
- Gave support at the CAP cancer awareness activity at Mayagüez, PR. 2014.

### **EXTRACURRICULAR ACTIVITIES**

- **What's my story? Communicating my science on an effective way (2019):** Science communication workshop offered by the Puerto Rico Science, Technology & Research Trust.
- **2019 ASM Scientific Writing and Publishing Online Course**
- **American Society for Microbiology:** Active Member.
- **American Academy of Allergy, Asthma & Immunology (AAAAI) (2019):** Active member.
- **Microbiology Chapter UPR-MSU (2016-Present):** Actual *President* of this association. Currently working in the development of educational and outreach activities for the community.
- **Graduate Students Association (2016-Present):** Active member. Recognized as a Gold Member student for my participation in the majority of the activities of the association.
- **Puerto Rico Microbiology Society (2016-Present):** Active member in this association aimed to promote and advance microbiology.

