

Urieliz M. Cintrón Torres

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EDUCATION

2012-present

University of Puerto Rico in Ponce (UPRP)

Ponce, PR

Bachelor's Degree in Biomedical Sciences

Overall GPA: 3.55

Expected Graduation Date: June 2017

UPRP Honor Program Courses

- *Basic American Sign Language*
- *Intermediate American Sign Language*
- *Personal Defense*
- *Social Labor Community*
- *Introduction to Information Skills*

2009-2012

Jose Felipe Zayas High School

Coamo, PR

High School Diploma

HONORS AND AWARDS

October 2016

Green Flag Award

University of Puerto Rico in Ponce

July 2016

HSF Scholar Recognition

Hispanic Scholarship Fund

2013, 2014, 2015, 2017

University of Puerto Rico in Ponce

Dean's List

November 2015

Travel Award

Annual Biomedical Research Conference for Minority Students 2015

September 2015

*Active Member Recognition
National Biological Honor Society Tri-Beta
Zeta Kappa Chapter*

September 2015

*Leadership Award
PHSU 1st Global Leadership Conference*

April 2015

*2nd Place in John C. Johnson Award for Student Research Excellence
Honorary Biological Society Tribeta District Convention*

July 2015

Unrestricted Endowment Fund for Students Scholarship

WORK EXPERIENCE

2016

Lab technician-Anatomy Lab
*Ponce Health Sciences University
Ponce, PR*

2015-2016

Collaborator
*Ban the bottle! : An educational campaign to eliminate the use of single-use water bottles
Ponce, PR*

2012

Office Assistant in the Department of Office Systems
*Work/Study Program- University of Puerto Rico in Ponce
Ponce, PR*

RESEARCH ACTIVITIES/ PROGRAMS

June2016-July2016

***Summer Undergraduate Research Program
Albert Einstein College of Medicine***

A novel addition to a cell adhesion complex that regulates the structure of PVD dendrite development

The presence of well-developed dendrites in the nervous system plays an important role in intracellular communication and responses to stimuli to control functions of the body. Importantly, nervous system defects as a result of defective dendrites may lead to neuropsychiatric diseases such as autism and schizophrenia. *Caenorhabditis elegans* is an

excellent model to study dendrite development due to its simple nervous system, transparent body, and because all of its genome is already known. PVD are a pair of somatosensory neurons in the body of *C. elegans* that are responsible for response to external stimuli, such as harsh touch and cold temperatures. PVD dendritic branches have a menorah-like structure, which distinguishes them from other neurons in *C. elegans*. Previous studies have shown that this structure is patterned by the conserved SAX-7/L1CAM and MNR-1/Menarin cell adhesion complex and DMA-1, a leucine rich transmembrane receptor. We have now found that LECT-2, which is a diffusible protein secreted from the muscle of the worm, serves an important role in patterning the highly organized structure of PVD dendrites together with the SAX-7–MNR-1–DMA-1 complex. LECT-2 was discovered twenty years ago, but its developmental role is not yet characterized. To elucidate which other genes could contribute to PVD arborization, a screen for genes that modify a hypomorphic *lect-2* allele has been performed and several new mutants have been identified. I will conduct a series of complementation tests to determine which of these mutants affect new genes involved in PVD dendrite development. Our finding is that the enhancer 6C2 and *mnr-1* failed to complement each other meaning that this mutant could potentially be a new allele of *mnr-1* that interacts with *lect-2*. More complementation tests will be performed with other enhancers. The *mnr-1* allele and all the genes that fail to complement, will be sequenced for identification.

PI. Dr. Hannes Buelow, PhD

May 2015

Developing Future Biologists Program

Developmental Biology Short Course by the University of Michigan

Faculty from the University of Michigan offered a Program in the UPR-Ponce where, for a week, we learned about developmental biology, learned laboratory skills, and prepared a research presentation at the end of the program.

September 2015

PHSU Global Leadership Conference

Ponce Health Sciences University

We learned leadership skills, did physician shadowing, and designed small projects that fulfilled the needs we identified within our community in Ponce.

June 2014- July 2015

Heart, Lung, and Blood, Summer Research Program

Case Western Reserve University

Vanin-1 and Oxidative Stress

I worked for eight weeks in the Physiology and Biophysics Department at Case Western Reserve University's School of Medicine. My project consisted of studying the association between the membrane protein vanin-1 and the oxidative stress in cells. This research is relevant to the STEM fields because it is focused on explaining the physiology of one of the most important components of organisms, a protein. For this study we had two main goals: developing an oxidative stress fluorescence assay to study the oxidative stress activity in the cells after being exposed to a stressor and determining whether or not the presence of vanin-1 in the cells aggravated the oxidative stress activity. In this project, I was part of every aspect of the study, I

was in charge of growing the cells, developing a new protocol with my mentor for the fluorescence assay, treating the cells with H₂O₂, writing an abstract, and making a poster, and giving a poster presentation for the INTERSECTIONS Poster Session. My principal investigator's lab, along with other contributors, have been studying the relationship between this protein and hypertension for some time now. Part of their investigation was to study the different variants of vanin-1 and their effect in hypertensive patients. My project studies the relationship between oxidative stress and high blood pressure, which would complete some part of what they were looking for in the patient's genotype and phenotype. As we hypothesized, the presence of this protein did aggravate the oxidative stress activity in the cells. We also found that the best way to pre-treat the cells for this assay is with H₂O₂ 50μM and incubating for 3 hours before reading the results.

PI. Dr. Tingwei Mu, PhD

June 2014-July 2014

Summer Medical and Dental Education Program

Case Western Reserve University

Program of six weeks of duration where I got the opportunity to do physician shadowing, acquire more knowledge about how to become a competitive student for medical school, and presented a public health project, among other activities.

Mentor: Joseph T. Williams, MPA

PUBLICATIONS AND PRESENTATIONS

December 2016

My 1st Employment Experience: Ponce Health Sciences University

University of Puerto Rico in Ponce, Ponce, PR

December 2016

"Ban the Bottle"

Ban the Bottle UPRP and Psychology Students Association

University of Puerto Rico in Ponce, Ponce, PR

December 2016

"The Importance of the Professional Portfolio"

Jose M. Espada Zayas Elementary School, Coamo, PR

November 2016

A novel addition to a cell adhesion complex that regulates the structure of PVD dendrite development

National Biological Honorary Society Tri-Beta

Zeta Kappa Chapter

University of Puerto Rico in Ponce, Ponce, PR

November 2016

A novel addition to a cell adhesion complex that regulates the structure of PVD

dendrite development

*5th Honor Students Program Research Symposium
University of Puerto Rico in Humacao, Humacao, PR*

September 2016

“The Plastic Life”

*Ban the Bottle UPRP and Green Lion Association
University of Puerto Rico in Ponce, Ponce, PR*

July 2016

***A novel addition to a cell adhesion complex that regulates the structure of PVD
dendrite development***

*Summer Undergraduate Research Program Poster Session
Albert Einstein College of Medicine, Bronx, NY*

June 2016

Public Health Campaign: Congenital Insensitivity to Pain

*National Biological Honorary Society Tri-Beta
Zeta Kappa Chapter
University of Puerto Rico in Ponce, Ponce, PR*

April 2016

Vanin-1 and Oxidative Stress

*National Biological Honorary Society Tribeta Distrital Convention Poster Session
Cielo Mar Hotel, Aguadilla, PR*

November 2015

Vanin-1 and Oxidative Stress

*American Biomedical Research Conference for Minority Students (ABRCMS)
Poster Session
Washington Convention Center, Seattle, WA*

October 2015

The Summer Medical and Dental Education Program (SMDEP)

*American Medical Students Association UPR-Ponce Chapter
University of Puerto Rico in Ponce, Ponce, PR*

July 2015

Vanin-1 and Oxidative Stress

*Intersections Poster Session
Case Western Reserve University, Cleveland, OH*

June 2014-July 2014

“You are what you eat” Campaign

Summer Medical and Dental Education Program

PROFESSIONAL MEMBERSHIPS

2015 – Present

American Medical Students Association (AMSA)
University of Puerto in Ponce Chapter
Pre-medical student membership

2015-Present

University of Puerto Rico in Ponce
National Biological Honorary Society Tri-Beta
Zeta Kappa Chapter
Regular membership

2015-Present

American Medical Women's Association (AMWA)

- *Pre-medical student membership*

2015-present

American Association for Cancer Research (AACR)

- *Student Membership*

2015-Present

University of Puerto Rico in Ponce
Honor Studies Program Students Association

- *Active member*

2015-2016

University of Puerto Rico in Ponce
Students Organization Committee

- *Active member*

2014-2016

University of Puerto Rico in Ponce
Leon Verde Recycling Association

- *President (2015-2016)*
- *Historian (2014-2015)*

2013-2015

University of Puerto Rico in Ponce
Chemistry and Physics Students Association

- *Historian (2014-2015)*

- *Active Member (2013-2014)*

ATTENDED SCIENTIFIC CONFERENCES

November 2016

Humacao, PR

5th Honor Students Program Research Symposium

October 2016

San Juan, PR

American Medical Students Association (AMSA) Fall Conference

April 2016

Ponce, PR

VIII Congress of Academic Research and Creation UPRP

April 2016

Aguadilla, PR

National Biological Honorary Society Tri-Beta District Convention

November 2015

Seattle, WA

Annual Biomedical Research Conference for Minority Students (ABRCMS)

EXTRA-CURRICULAR ACTIVITIES/ VOLUNTEER EXPERIENCE

November 2016

Technology and Sciences Museum in Caguas

Phunweek

Physiological Association of Puerto Rico

Presenter

- *I presented the morphology and physiology of a real heart, lungs, and cerebrum to children from kinder garden to high school.*

October 2016

1st Basketball Tournament in UPRP

National Biological Honorary Society Tri-Beta

Volunteer

- *Helped collecting donations, worked in the game score table, and helped selling food during the games*

October 2016

University of Puerto Rico in Ponce

Proyect: "Reverdece tu Comunidad"

Volunteer (5 hours)

- *Removed trash and recollected recyclable material from Punta Cucharas Natural Reserve*

October 2016

Histotechnology Workshop

My First Employment Experience

Ponce Health Sciences University

September 2016

Fray Pedro School of Deaf March

Pro-Deaf Students Association

Volunteer

- *Supported the school as Princess Tiana and shared with the Deaf children from the school and the community in Ponce*

May 2016

University of Puerto Rico in Ponce

Play: "Scooby Doo and the Return of the Villains"

- *Acted in a play as Princess Tiana in sign language or the Deaf Community in Ponce*

March 2016

Catholic University of Puerto Rico in Ponce

Conference: History of the Education of the Deaf Community in Puerto Rico

Attended

February 2016

Social Lunchroom

Honor Studies Program Students Association and General Student Council

Volunteer

- *Prepare and provide lunch for students with low income in the UPRP*

December 2015

"Parrandón" Food Truck Fest, San Juan, PR

Green Lion Association

Volunteer (6 hours)

- *Garbage removal and recollection of recyclable material*

November 2015

University of Puerto Rico in Ponce-Students Organizations Committee

Bottle Caps and Top Tabs Fundraiser for the Ronald McDonald House Puerto Rico

Coordinator

- *I organized the fundraiser, promoted the activity, and recollected the caps and taps for the Ronald Mc Donald House with various students organizations from the UPRP*

November 2015

University of Puerto Rico in Ponce

Audiology Health Fair also with the Ronald McDonald House Puerto Rico

Recruiter

- *I oriented and recruited students to be ushers and assistants in the health fair*

September 2015

Ponce Health Sciences University

1st PHSU Annual Global Leadership Conference

Volunteer

- *I worked in an unprivileged community for two days*

September 2015

Clausell Community, Ponce

PHSU 1st Global Leadership Conference

Volunteer

- *Went two days to the community in Ponce to help clean the baseball park's public bathrooms, prepared a field day for the children, and donated toys and food.*

September 2015

International Coast Cleanup

La Guancha, Ponce, PR

Volunteer

- *Removed trash and recollected recyclable material from the beach with the coordination of Scuba Dogs Society*

August 2015- May 2016

University of Puerto Rico in Ponce

SMDEP Ambassador

Coordinator/Presenter

- *I was a guide for students interested in applying to the Summer Medical and Dental Education Program*

August 2015

By-Pass Avenue's 2nd Cleanup, Ponce, PR

Green PR

Volunteer (4 hours)

- *Garbage removal and recollection of recyclable material of the streets in Ponce*

April 2015

Conference: "My Professional Portfolio"

Chemistry and Physics Students Association

Attended

March 2015

University of Puerto Rico in Ponce
Welcoming Future Scientists
Volunteer

- *Working as an usher for high school students*

July 2014

Shadowing Dr. Hlatshwayo - Internal Medicine (4 hours)
Summer Medical and Dental Education Program
University Hospitals, Cleveland, OH

June 2014

Shadowing Dr. Modlin- Pediatric Anesthesia (5 hours)
Summer Medical and Dental Education Program
University Hospitals, Cleveland, OH

June 2014

Shadowing Dr. Eckel Team- Internal Medicine (4 hours)
Summer Medical and Dental Education Program
University Hospitals, Cleveland, OH

June 2014

Shadowing Dr. Gilbert- Emergency Medicine (4 hours)
Summer Medical and Dental Education Program
University Hospitals, Cleveland, OH

December 2014

University of Puerto Rico in Ponce
Operation Christmas Child
Volunteer

- *I donated articles and prepared a shoebox with gifts*

December 2014

Gogo Foundation Pediatric Hospital Christmas Party
Chemistry and Physics Students Association
Volunteer

- *Prepared gifts for the children in the hospital*

March 2014

University of Puerto Rico in Ponce
12th Intellectual Competition for High School Students
Chemistry and Physics Students Association
Volunteer

- *My job was to organize the different schools at their designated table, making sure the students had the materials required to take the exams, greeting the students and teachers, among other.*

LICENSURE AND CERTIFICATIONS

October 2016

*Research Aspects of HIPPA
The UCSD Human Research Protections Program*

October 2016

*Protecting Human Research Participants
The National Institutes of Health (NIH) Office of Extramural Research*

June 2016

*Hazard Communication Training
Department of Environmental Health and Safety
Albert Einstein College of Medicine, Bronx, NY*

June 2016

*Radiation Safety Training Course and Examination
Department of Environmental Health and Safety
Albert Einstein College of Medicine, Bronx, NY*

May 2015

*Completion of the Workplace Harassment: What Would You Do?
Higher Ed*

October 2015

*Venipuncture Workshop
American Medical Students Association UPR-Ponce Chapter
Ponce, PR*

July 2015

*Compliance Certificate
Nonemployee Compliance Training
University Hospitals, Cleveland, OH*

2014

*CPR Workshop
Chemistry and Physics Students Association
Ponce, PR*

LANGUAGES

- *Spanish (native)*
- *English (Advanced)*

- *American Sign Language (Intermediate)*

HOBBIES AND OUTSIDE ACTIVITIES

- *Jogging*
- *Drawing*
- *Painting*
- *Tutoring*
- *Singing*