

Eliezer Cartagena López

Urbanización la Planicie Calle 8 F10 Cayey, PR 00736

eliezer.cartagena@upr.edu, 787-900-3354

My short term goals consist in completing a bachelor's degree in Biology and participating in an undergrad summer research program to obtain a vast knowledge in the field of scientific research that would help me complete my ultimate goal, obtaining an MD/Ph.D. degree in the field of neuroscience.

EDUCATION

August 2013-May 2016

Highschool diploma, Escuela Superior Vocacional Benjamin Harrison, Cayey Puerto Rico

June 2016-May 2021

B.S. Biology, University of Puerto Rico, Cayey Campus

RESEARCH EXPERIENCE

December 2019-Present Day

Institute of Neurobiology: University of Puerto Rico Medical Sciences Campus

Mentor: Dr. Cristina M. Velázquez

Title: Lead-induced hippocampal changes in BDNF gene expression and neuronal survival.

Duties: Determine the effects of different concentrations of Lead (Pb) exposure on hippocampal neuronal survival in adult female and male mice. Determine transcriptional regulation and gene expression of BDNF in response to Pb exposure within hippocampal neurons.

January 2019-Present Day

Institute of Neurobiology: University of Puerto Rico Medical Sciences Campus

Mentor: Dr. Cristina M. Velázquez

Title: Immunolocalization of nuclear beta-catenin in response to alcohol in murine striatal neurons.

Duties: Characterization of BK channel isoforms using electrophysiology. Determine BK channel movement from the plasma membrane to the cytosol via immunocytochemistry.

November 2015-May 2016

Howard Hughes Program: University of Puerto Rico, Cayey Campus

Mentor: Dr. Edwin Vázquez, Department of Biology at the University of Puerto Rico, Cayey Campus

Title: Phylogenic Identification of Cellulolytic Microorganisms in the Ruminant Feces of Herbivorous Mammals

Duties: Make a phylogenic study to identify cellulolytic capable microorganisms that worked as bio remediable products.

September 2015-December 2015

Howard Hughes Program: University of Puerto Rico, Cayey Campus/Yale University

Mentor: Dr. Edwin Vázquez, Department of Biology at the University of Puerto Rico, Cayey Campus.

PARE Project

Duties: Identify bacteria resistant to Tetracycline antibiotics in different concentrations.

ACTIVITIES, MEMBERSHIPS, AND COMMUNITY SERVICE

August 2017-May 2018

Neuroboricuas: Student Chapter University of Puerto Rico at Cayey

Board member: President from August 2019 to present

- **Duties:** Coordinate meetings extracurricular activities, seminars, workshops

Board member: Vocal from August 2018 to 2019

- **Duties:** Coordination of outreach and workshops related to the organization. To assist all other board members.

April 2019-Present

Member of Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

- **Duties:** Present research results at Honolulu, Hawaii

WORK EXPERIENCES

January 2018- May 2018

Licensed Practitioner Nurse (LPN)

Duties: Taking vital signs, taking care of hygiene and nutrition needs of patients

WORKSHOPS AND CERTIFICATES

- Neuroscience Habilitation Workshop
- General and Occupational Health and Safety
- Mouse Lecture and Wet Lab of the Institutional Animal Care and Use Committee
- Aseptic Surgery
- Biosafety Complete Training Series
- Working with Mice in Research Settings
- Biomedical Responsible Conduct of Research
- Institutional Official: Animal Care and Use
- Working with the IACUC
- Fluorescent Light Microscopy Seminar
- Fluorescence Microscopy Training

POSTER PRESENTATION

6th COBRE Annual Retreat:

- Poster Title: “Binge-Like” Ethanol Pre-exposure Increases Voluntary Consumption in Female but not in Male C57 Adolescent Mice

2019 SACNAS conference in Honolulu, Hawai'i

- Poster Title: Ethanol Modulation of Surface Expression of the BK Channel Is Isoform Specific

27TH PUERTO RICO NEUROSCIENCE CONFERENCE

- Poster Title: Ethanol Modulation of Surface Expression of the BK Channel Is Isoform Specific

LAB SKILLS

- Electrophoresis
- Serial Dilutions
- Cell Culture
- Cellular Electrophysiology
- Brain Slices Electrophysiology
- Behavioral Experiments with Mice
- PCR
- Bacterial culture
- Dissection
- Immunocytochemistry
- Crystallization
- Confocal Microscopy

TECHNICAL SKILLS

- Language: English (Fluent), Spanish (Native), and French (Familiar)
 - In the three languages I can write, read, and speak.
- Software: Comprehensive in both Mac OS and PC Systems and skilled in Microsoft Word, PowerPoint, and Excel.

REFERENCES

Upon Request