

YARELY C. HOFFIZ

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EDUCATION

- **Georgia State University (GSU)**, Atlanta, GA
Major: Ph.D. in Neuroscience (August 2014 - Present)
Research Advisor: Nancy Forger
- **University of Puerto Rico at Humacao (UPRH)**, Humacao, PR
Major: BS in Industrial Microbiology (August 2010 - May 2014)
Minor: General Biology
Research Advisor: Dr. Lilliam Casillas

RESEARCH EXPERIENCE

Neuroscience

- **Role of birth in brain development;** Georgia State University, Atlanta, GA. Advisor: Nancy Forger (June 2016 – Present)
- **Development of a comprehensive atlas of E3 ubiquitin ligase mutations in neurological disorders;** Georgia State University, Atlanta, GA. Advisor: Angela Mabb (September 2016 – November 2017)
- **E3 ubiquitin ligases disease-associated mutations in neurological disorders;** Georgia State University, Atlanta, GA. Advisor: Angela Mabb (September 2016 – November 2016)
- **Role of engrailed and ephrinA in visual system development;** Georgia State University, Atlanta, GA. Advisor: Sarah Pallas (November 2014 - June 2016)
- **The effect of redox agents in Helisoma trivolvis B5 neurons;** Georgia State University, Atlanta, GA. Advisor: Vincent Rehder (August 2014 - November 2014)
- **Mechanisms underlying retinal angiogenesis;** Amgen Scholars Program. University of California, San Francisco, CA. Advisor: David Copenhagen (June 2013 - August 2013)
- **Role of cholinergic synaptic transmission in the development of retinal circuits;** NSF Research Experience for Undergraduates (REU). University of California, Berkeley, CA. Advisor: Marla Feller (June 2012 - August 2012)

Microbiology

- **Design of an educational activity to teach Geomicrobiology concepts to non-Geology majors;** University of Puerto Rico at Humacao, Humacao, PR. Advisor: Lilliam Casillas (August 2012 - May 2013)
- **Exopolymeric substances in natural isolates of Bacillus sp., particularly those present in extreme environments;** University of Puerto Rico at Humacao, Humacao, PR. Advisor: Lilliam Casillas (August 2012 - May 2014)

Materials Science

- **Fabrication of graphene devices and a controlled, effective, and reversible doping of graphene using ultraviolet irradiation;** University of Pennsylvania, Philadelphia, PA. Advisor: Alan T. Johnson (May 2011 - July 2011)

- **Fabrication of rapidly responsive gas sensors using single walled carbon nanotubes with single stranded DNA;** NSF Research Experience for Undergraduates (REU). University of Pennsylvania, Philadelphia, PA. Advisor: Alan T. Johnson (May 2011 - July 2011)
- **Fabrication of Schottky diodes using electrospun PEDOT-PSSA nanofibers;** University of Puerto Rico at Humacao, Humacao, PR. Advisor: Nicholas J. Pinto (January 2011 - May 2011)
- **Fabrication of semiconducting zinc oxide thinfilms and nanofiber devices for therapeutic purposes;** University of Puerto Rico at Humacao, Humacao, PR. Advisor: Nicholas J. Pinto (August 2010 - May 2011)
- **Fabrication of artificial skin using biodegradable and biocompatible polymer nanofibers;** University of Puerto Rico at Humacao, Humacao, PR. Advisor: Nicholas J. Pinto (August 2009 - May 2010)

PUBLICATIONS

- George AJ, **Hoffiz YC**, Charles AJ, Zhu Y, Mabb AM (2018). A Comprehensive Atlas of E3 Ubiquitin Ligase Mutations in Neurological Disorders. *Front Genet* 9: 29
- Marvasi M, **Davila-Vazquez YC**, Casillas-Martinez LM (2013). Laboratory Activity to Effectively Teach Introductory Geomicrobiology Concepts to Non-Geology Majors. *J Microbiol Biol Educ* 14(2): 206-212.
- Luo Z, Pinto NJ, **Davila, Y**, Johnson ATC (2012). Controlled Doping of Graphene Using Ultraviolet Irradiation. *App Phys Lett* 100(25): 253108.
- **Dávila-Vázquez Y**, Robles-García J, Ramos I, Pinto NJ (2011). Fabrication of Semiconducting Zinc Oxide Thinfilms and Nanofibers. *Proceedings of National Conference on Undergraduate Research*, Ithaca, New York. 394-400.

PRESENTATIONS

Poster Presentations

- **Vaginal delivery activates vasopressin neurons in the perinatal mouse brain.**
 - 2018 Southeastern Pediatric Research Conference, Atlanta, GA (June 2018)
 - B&B retreat, Atlanta, GA (May 2018)
- **Neural activation triggered by birth in the neonatal mouse brain.**
 - Society for Neuroscience, Washington D. C., DC (November 2017)
- **VGlut2 Could be Mediating Angiogenesis in the Embryonic Retina by a Melanopsin Light Response.**
 - Annual Biomedical Research Conference for Minority Students (ABRCMS), Nashville, TN (November 2013)
 - University of California, San Francisco, CA (July 2013)
- **Laboratory Activity to Effectively Teach Introductory Geomicrobiology Concepts to Non-Geology Majors.**
 - American Society for Microbiology (ASM), Denver, CO (May 2013)
- **Role of Cholinergic Synaptic Transmission in the Development of Retinal Circuits.**
 - Annual Biomedical Research Conference for Minority Students (ABRCMS), San Jose, CA (November 2012)
 - Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS), Seattle, WA (October 2012)

- **Controlled Doping of Graphene Using Ultraviolet Irradiation.**
 - American Physical Society (ACS) National Meeting, Boston, MA (August 2011)
 - Partnership for Research and Education in Materials (PREM) Annual Meeting, Humacao, PR (November 2011)
- **Schottky Diodes and Sensors Fabricated from Electrospun PEDOT-PSSA Nanofibers and their Characterization in Toxic Gaseous Environments.**
 - American Chemical Society (ACS) National Meeting, Denver, CO (August 2011)
- **Fabrication of Semiconducting Zinc Oxide Thinfilms and Nanofibers.**
 - National Conference on Undergraduate Research (NCUR), Ithaca, NY (March 2011)
- **Electrospun Polymer Nanofibers Containing Antibiotics.**
 - Partnership for Research and Education in Materials (PREM) Annual Meeting, Humacao, PR (November 2010)
 - INTEL International Science Fair, San Jose, CA (May 2010)
 - National Conference on Undergraduate Research (NCUR), Ithaca, NY, Missoula, MT (April 2010)

Oral Presentations

- **VGlut2 Could be Mediating Angiogenesis in the Embryonic Retina by a Melanopsin Light Response.** University of California, San Francisco, CA (July 2013)
- **Role of Cholinergic Synaptic Transmission in the Development of Retinal Circuits.** University of California, Berkeley, CA (August 2012)
- **Controlled Doping of Graphene Using Ultraviolet Irradiation.** American Physical Society (APS), Boston, MA (March 2012)
- **Parallel Matrix Sensing of Vapor Analytes Using ssDNA.** University of Pennsylvania, Philadelphia, PA (August 2011)

AWARDS AND HONORS

Scholarships and Fellowships

- **B&B Fellowship;** Georgia State University, Atlanta, GA (July 2017 - Present)
- **SFN's Neuroscience Scholars Program Associate;** a program that provides scientific and professional development opportunities for underrepresented neuroscience researchers; Georgia State University, Atlanta, GA (July 2015 – July 2017)
- **NIH-MARC Undergraduate Research Fellowship;** University of Puerto Rico at Humacao, Humacao, PR (June 2012 - May 2014)
- **University of Puerto Rico Honors Scholarship;** University of Puerto Rico at Humacao, Humacao, PR, given to the top 5% students with highest GPA and covers full tuition (August 2011 - May 2014)
- **NSF-PREM Undergraduate Research Fellowship;** University of Puerto Rico at Humacao, Humacao, PR (August 2010 - May 2012)
- **NSF-PREM High School Research Fellowship;** University of Puerto Rico at Humacao, Humacao, PR (August 2009 - May 2010)

Academic Awards

- **Bachelor's Student with the Highest GPA**, University of Puerto Rico at Humacao, Humacao, PR (May 2014)
- **Science Major with the Highest GPA**, University of Puerto Rico at Humacao, Humacao, PR (May 2014)
- **Most Outstanding Student in Scientific Research**, University of Puerto Rico at Humacao, Humacao, PR (May 2014)
- **Certificate of Merit**, E. W. Plummer Award for the best paper, The Laboratory of Research in the Structure of Matter (LRSM) NSF-REU, University of Pennsylvania, Philadelphia, PA (February 2012)
- **Certificate of Recognition**, ASM Materials Science Education Foundation for the Most Outstanding Exhibit in Materials Science (May 2010)

Travel Awards

- **Preparing the Next Generation of Neuroscience Leaders**, Society for Neuroscience, Neuroscience Scholars Program (NSP), (July 2017)
- **Society of Toxicology (SOT)**, San Antonio, TX (March 2013)
- **Society for Advancement of Hispanics/Chicanos and Native Americans in Science (SACNAS)**, Seattle, WA (October 2012)

SERVICE AND MENTORSHIP

- **Science Teaching**: Teach basic science concepts to Spanish-speaking communities in Atlanta. Atlanta and Lilburn Georgia, (August 2017-Present)
- **Writing Across Curriculum Writing Consultant**: Serve as writing advisor, providing guidance in writing assignments. Assist in writing project proposals in the undergraduate research-oriented Neuroscience lab (NEUR3010: six hours a week course). Georgia State University, Atlanta, GA (January 2017 – May 2017)
- **Writer for the Spanish blog "Ciencia en tus manos"**: Write neuroscience related articles to the Spanish speaking public in the webpage "Ciencia es tus manos".
- **Science Fair Judge**: Trip Elementary School, Greyson, GA (Jan 2017)
- **Research Mentor**: Provide mentorship to honors thesis undergraduate students in my research lab. Georgia State University, Atlanta, GA (November 2014 – June 2016)
- **Brain Awareness**: Active volunteer for K-12 school visits to share research discoveries and career opportunities in Neuroscience. Volunteer at events to inform the general public about neuroscience. Atlanta, GA (January 2015 - Present)
- **Graduate Teaching Assistant**: Assist teaching the NEUR 3010 lab course. Provided assistance in electrophysiology, molecular and microscopy techniques. Helped with grading and teaching several techniques. Georgia State University, Atlanta, GA (January 2015 – December 2016)
- **Assistant in Graduate Recruitment Activities**: Host prospective students during the recruitment weekend. Georgia State University, Atlanta, GA (February 2015 – Present)
- **Fernbank Museum of Natural History**: Volunteer in activities that involve teaching science to the general public (Spring 2015).