



Filipa Godoy-Vitorino, PhD

On September 27th, RISE trainees along with the research community participated in the seminar “Harnessing the power of microbes for health: new perspective on the human microbiome.” The seminar was offered by Dr. Filipa Godoy-Vitorino, a tenured professor at the University of Puerto Rico School of Medicine and the Chair of the Department of Microbiology. Dr. Godoy-Vitorino presented her research program, which focuses on the human microbiome in a variety of contexts, including women’s health, cancer, chronic diseases, etc. Her laboratory uses various -omics techniques to understand the co-evolution, transmission, and functions of microbial-host symbioses. Her group’s mission is to translate microbial ecology to improve human health and conservation while empowering education in the microbial sciences. After the presentation, RISE trainees had the opportunity to lunch with the speaker, where they received advice on Ph.D. careers and how to be successful. Dr. Godoy-Vitorino encouraged the students to be focused and follow their gut feelings when making decisions. We thank Dr. Godoy for her excellent seminar and for sharing her knowledge with the RISE trainees. (By Yadiel A. Rivera-López, 3rd-year G-RISE Trainee)

GSABS INDUCTION CEREMONY 2023

(By: Yadiel Rivera, 3rd year G-RISE trainee)

On Wednesday, September 27th, the Graduate Student Association of Biomedical Sciences (GSABS) hosted the Annual Induction Ceremony for first-year PhDs and the 20th Anniversary of GSABS. During this activity, they had the opportunity to recognize the success of Jessalyn G. Plá-Tenorio and John K. Alvarado Torres, who were awarded the Dr. Ismail Ibrahim Ali and Dr. Iván Vidal González Awards, respectively. First-year students Dorca Marcano, Stephanie Hernández, Lourdes Caro, Gretchen Albarrán, and James Torres were inducted and received their ceremonial white coats, marking the beginning of their Ph.D. careers. The Induction Ceremony was dedicated to Anixa “Nani” Hernández (Dr. Porter’s Laboratory Supervisor) for her excellent work and compromise with research at Ponce Health Sciences University. As part of the 20th Anniversary celebration, guests received a message from Dr. Darah Fontáñez, who is part of the GSABS legacy and an alumna of the Biomedical Sciences Graduate Program. Finally, we had the honor to receive a most inspiring talk from Dr. Margarita Bonilla-Claudio (Associate Dean/Assistant Dean of Research of the School of Dental Medicine) about her career path and how passion was the key to being a great dentist-scientist. (By Yadiel A. Rivera-López, GSABS President)



New GSABS members and 1st-year Ph.D. students



Guest Speaker-Dr. Margarita Bonilla-Claudio



GSABS Board 2023-2024



Behavioral Health Student Research Symposium of Southern Puerto Rico

The 9th Behavioral Health Student Research Symposium of Southern Puerto Rico was held at Ponce Health Sciences University on October 14th. We are thrilled to announce that two of our outstanding trainees won first place in their respective categories. Luinet Meléndez (2nd year G-RISE trainee) won first-place award in the poster presentation category. Yadiel Rivera (3rd year G-RISE trainee) won first-place award in the oral presentation, basic sciences category. Their hard work has paid off, and we could not be prouder. Congratulations Luinet and Yadiel!

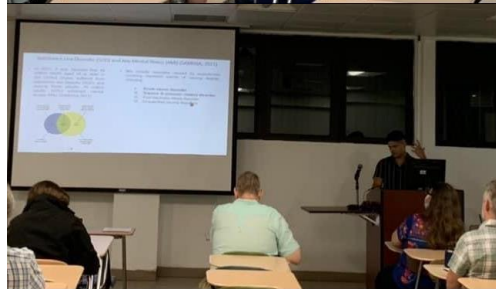
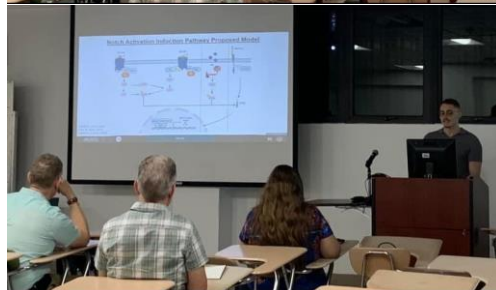
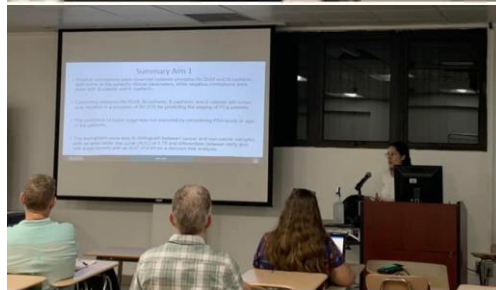
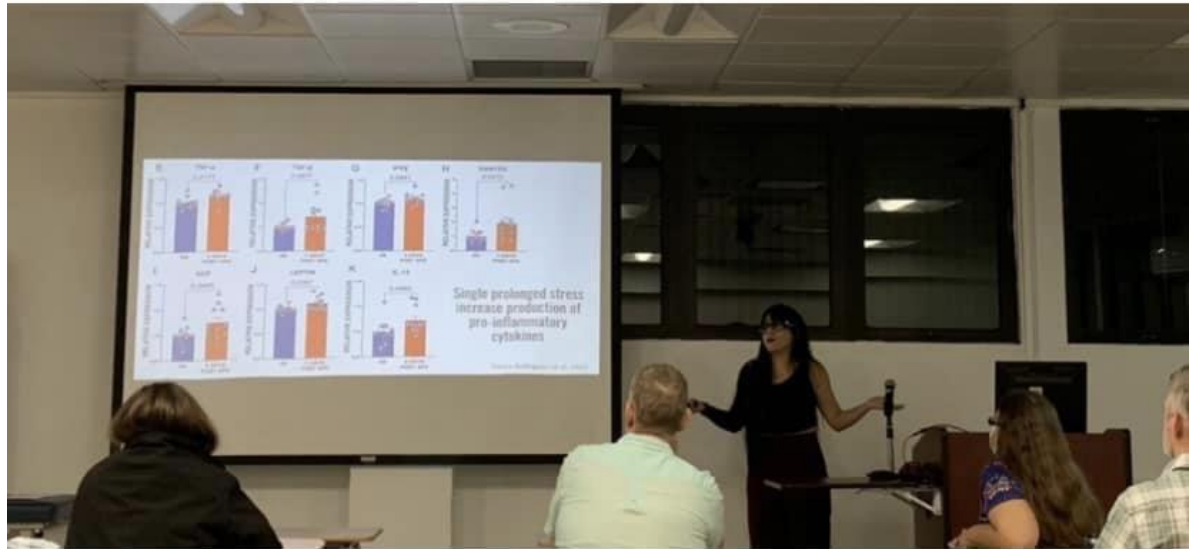


Luinet Meléndez



Yadiel Rivera

DATA BLITZ



Our talented G-RISE trainees—Sheila Valle (5th year), Nashaly Irizarry (4th year), Yobet Pérez (4th year) and Yadiel Rivera (3rd year) delivered exceptional presentations on their research projects at our program's inaugural data blitz of the semester, on September 22nd. These were the works presented:

- Sheila Valle: "The Role of Phosphorylated Retinoblastoma tumor suppressor at Serine 249 in Prostate Cancer metastasis".
- Nashaly Irizarry: "Differential peripheral cytokine profile of female rats susceptible to traumatic stress".
- Yadiel Rivera: "The Role of the Notch Signaling Pathway in Stress Hormone-Mediated MDSCs Infiltration into the Ovarian Tumor Microenvironment".
- Yobet Pérez: "The impact of fear conditioning prior to cocaine self-administration on cocaine seeking in adult rats".

Well done!

THESIS PROPOSALS DEFENSE

We extend our warmest congratulations to our third year G-RISE trainees, Paola Flores & Yadiel Rivera, for their successful defense and approval of their thesis proposals. This accomplishment marks a significant milestone in their academic careers. We encourage them to maintain their dedication and hard work. Good job!



G-RISE LAB WORKSHOP

On Friday September 29th, the G-RISE Lab held the workshop, *“Biohazards in Research Projects: Working with Infectious Agents, Potentially Infectious Specimens, and the Institutional Biosafety Policies to Follow”* with Maria del C. Sanchez, MT, PhD, Associate Professor and Chair of the Institutional Biosafety Committee of PHSU. During this workshop, the Trainees had the opportunity to gain knowledge about the use of potentially infectious substances in research projects and the role of the Biosafety Committee. Some of the topics discussed were: what constitutes biohazardous substances and waste, the federal agencies and policies that regulate biohazardous agents and the proper manner for safe transport and disposal of those biohazardous substances. The trainees were also presented with examples and demonstrations of safe packaging for transport of biohazardous substances. This discussion allowed the students to get familiarized with the concept of biohazardous materials and biosafety and to learn about their regulation.



PD: LEVERAGING AI RESPONSIBLY

By: Sheila Valle (5th year G-RISE trainee)

On October 6th, 2023, Dr. Nelson A. Colon Vargas, a mathematician with expertise in artificial intelligence (AI), spoke to the RISE trainees and the PHSU community about up-to-date information regarding the ethical use of AI in the science and academic environment. He shared with us the core principles of ethical AI, which includes non-maleficence, accountability, transparency, human rights, and fairness. The attendees received very good feedback and helpful tips on how to use AI as scientists, taking into consideration the core principles of ethical AI. He encouraged us to take advantage of this new and accessible tool, but with responsibility, to maximize benefits while minimizing risks.



PD: YOUR MENTORING NETWORK

By: Stephanie Hernández (1st year G-RISE trainee)

On Friday, October 13th, Dr. James Porter, PhD, Associate Director of the G-RISE program, and Director of the RCMI BRAIN Core at PHSU, gave a professional development session titled “Your Mentoring Network.” During this session Dr. Porter discussed the course “Build Your Research Community” (BYRC), which is co-developed by iBiology Courses and the University of Wisconsin-Madison. The G-RISE Program students/trainees were part of a pilot project funded by the NIH aimed to learn more about how to build mentoring relationships. In this session, the trainees delved deeper into what they had learned and also had the opportunity to discuss other key concepts that are important to develop a good mentoring community during their PhD journey. Throughout this discussion, the students touched on a few important details that help a mentoring network grow, such as having diverse perspectives, resilience, specialized guidance, enhanced problem solving, and cultivating leadership skills. This activity empowered the students to understand that mentoring networks allow them to tap into a variety of perspectives and expertise. Each mentor can offer unique insights and experiences, which can help students develop a well-rounded understanding of their area of interest. As scholars in the process of gaining a doctorate degree, setting a strong foundation within our networks can help us advance more as scientists. We thank Dr. Porter for providing us valuable insight and knowledge!





G-RISE LAB WORKSHOP

On Friday October 20th, the G-RISE Lab held the workshop, "Preparing to Request Approval from The Institutional Biosafety Committee: A Practical Approach Workshop" with Grissell Tirado, Ph.D. Assistant Professor and Laboratory Supervisor of the G-RISE Lab. This workshop built on the previous workshop and gave Trainees the opportunity to learn how to prepare a letter to request approval from the Biosafety Committee. This workshop consisted of an interactive and practical session where the Trainees had the opportunity to assess example research protocols to identify the elements that represent a potential biohazard, to determine the corresponding measures of protection for personnel and environment and identify the measures of risk mitigation and contingency plans in case of exposure. Trainees were able to create the narrative related to the identified biohazards. This interactive experience allowed the students to get familiarized with the steps to evaluate a protocol for potential biohazards and provides basic understanding of the institutional process. Attendees had the opportunity to ask questions and exchange ideas and experiences related to their own research projects.



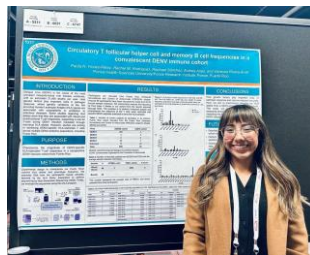
ASTMH ANNUAL MEETING 2023

From October 18-22nd, the American Society of Tropical Medicine and Hygiene (ASTMH) Annual Meeting in Chicago, IL, was a hub of scientific innovation in tropical medicine, hygiene, and global health. We were very well represented by our talented trainees, Paola Flores (3rd year G-RISE trainee) and Dorca Marcano (1st year G-RISE trainee).

Paola, from Dr. Rivera Amill's lab, received the prestigious 2023 American Committee on Arthropod-Borne and Zoonotic Viruses (ACAV) Student Travel Award, a testament to her impactful abstract and scientifically sound study. She also delivered a "lightning talk" during the ACAV Business Symposium at the ASTMH Meeting.

Paola's poster presentation, "Circulatory T follicular helper cell and Memory B cell frequencies in a convalescent DENV immune cohort," showcased her dedication and expertise.

This event was not just about work; it was a fantastic opportunity for learning, networking, and having fun! Congratulations, Paola & Dorca, for making us proud!



Paola Flores



Paola & Dorca Marcano

SACNAS 2023

The Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS) is a welcoming organization committed to supporting the success of Chicanos, Hispanics, and Native Americans across all educational and professional levels in STEM fields. With over 10,000 members and 141 student and professional chapters across the US and Puerto Rico, SACNAS hosts the largest diversity in STEM conference, with over 6,500 attendees at this year's 50th anniversary!

The annual conference was held in Portland, Oregon from October 26-28th, and our G-RISE Program Director, Dr. Caroline Appleyard represented us. She had the opportunity to attend keynote sessions and professional development seminars, hear inspiring stories, meet trainees, interact with colleagues, and make connections that will benefit both our PhD Program in Biomedical Sciences and our PHSU G-RISE Program.





PUBLICATIONS

Check out our recent manuscript just published online which summarizes the outcomes from our yearly interactive retreats and the lessons we have learned over the years!

Schmidt JM, Porter J, Rivera V, Appleyard CB Promoting Crucial Team Building, Collaboration and Communication Skills in Graduate Students through Interactive Retreats – submission to Advances in Physiology Education. 12 OCT 2023

<https://doi.org/10.1152/advan.00125.2023>

Congratulations to our former RISE trainee, Jessalyn Pla on her recent publication. Check it out!

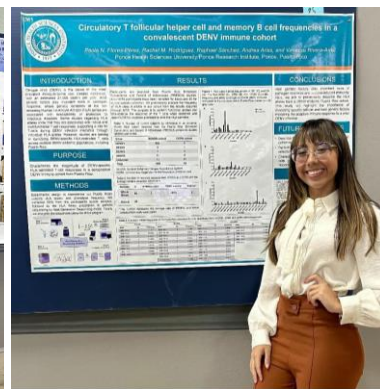
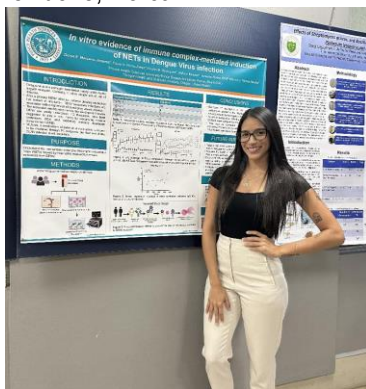
Jessalyn Pla-Tenorio, Angela M. Roig, Paulina A. García-Cesani, Luis A. Santiago, Marian T. Sepulveda-Orengo, Richard J. Noel, Astrocytes: Role in pathogenesis and effect of commonly misused drugs in the HIV infected brain, Current Research in Neurobiology, Volume 5, 2023, 100108, ISSN 2665-945X,

<https://doi.org/10.1016/j.crneur.2023.100108>

STUDENT RESEARCH SYMPOSIUM IN MICROBIAL SCIENCES

Congratulations to our G-RISE trainees, Dorca Marcano (1st year) and Paola Flores (3rd year), for their exceptional performances at the Student Research Symposium in Microbial Sciences. This event, featuring presentations from both graduate and undergraduate students, was organized by the Puerto Rico Microbiologists Association (PRSM) and took place on October 28th at the Inter-American University of Puerto Rico - Metropolitan Campus. Under the mentorship of Dr. Vanessa Rivera Amill and Dr. Marcos Ramos, Dorca presented her poster titled "In vitro evidence of immune complex-mediated induction of NETs in Dengue Virus infection," while Paola presented her poster titled "Circulatory T follicular helper cell and memory B cell frequencies in a convalescent DENV immune cohort."

A huge congratulations to Dorca who was awarded first-place in the graduate student poster category! Well done, Dorca!



OUTREACH ACTIVITIES

Kudos to our dedicated trainees for their commitment with science outreach and their efforts to motivate students and encourage their interest in science. Good job everyone!

- On September 15th, Nashaly Irizarry (4th year G-RISE trainee) shared her science with members of Neuroboricuas-PUCPR. This organization is dedicated to nurturing the growth of future neuroscientists from underrepresented backgrounds.
- On September 28th, Sheila Valle (5th year G-RISE trainee) returned to her alma mater, the University of PR in Aguadilla, to present a seminar on her research work. She not only showcased her impressive scientific work but also inspired the next generation of scientists. Great job, Sheila!
- On October 10th, our trainees Sheila Valle (5th year), Yaidel Rivera (3rd year), Luinet Meléndez (2nd year), and Joel Orengo (2nd year) and Dr. Yesenia Castillo, conducted a virtual event, organized in partnership with the 'Círculo de Pre-Médicos' Association, from the University of Puerto Rico in Mayaguez, that exemplified the power of collaboration in advancing scientific knowledge.



Nashaly Irizarry



Luinet M., Yaidel R., Yesenia C., Joel O., Sheila V.



Sheila Valle



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