JULY - SEPTEMBER 2026

PHD IN BIOMEDICAL SCIENCES

NEWSLETTER



PRI-PHSU T32
GRADUATE TRAINING PROGRAM
IN BIOMEDICAL SCIENCES

PONCE
RESEARCH INSTITUTE
PONCE MEDICAL SCHOOL FOUNDATION INC.

FROM OUR DEAN'S DESK



Vanessa Rivera-Amill, PhD

To our new students, welcome to the PhD Program in Biomedical Sciences. To our returning students, welcome back! Each of you brings experiences, questions, and aspirations that enrich our program. I look forward to seeing what we will learn and accomplish together this academic year.

Doctoral training brings discovery and progress, but also uncertainty and challenges. As you begin this semester, I encourage you to remain curious, ask questions, support one another, and recognize your own growth. Some of the most meaningful steps forward begin with an unexpected result, a thoughtful conversation, or the courage to try again.

This year also brings an important opportunity for our program. PHSU-Ponce Research Institute was awarded an NIH T32 training grant, effective July 1, 2026. Building on more than 17 years of NIH-supported graduate research training, this award will strengthen mentorship and research training in cancer biology, neuroscience, infectious diseases, chronic diseases, and translational medicine.

We are pleased to recognize the first cohort selected for the PRI-PHSU T32 Graduate Training Program in Biomedical Sciences:
•4th Year: Dorca Marcano
•3rd Year: Vivianka Ramos, Adrián Márquez, Axel Ufarry, Gabriel Rosario
•2nd Year: Alanis Torres, Fabiola Rodríguez
•1st Year: Jesús Santa, Andrés Cintrón, Ralphdy Vergne

I wish you a semester of meaningful progress, shared discoveries, and renewed confidence in what you can accomplish. We are here to support you, challenge you, and celebrate your achievements along the way.

Welcome to the fall semester and best wishes for the year ahead!



HANDS-ON NGS TRAINING

Our first-year trainees, Jesús Santa, Ralphdy Vergne, and Andrés Cintrón, gained hands-on experience in Next-Generation Sequencing (NGS) through a multi-day training session held from late July through early August 2026. Led by Andrea Arias García and Raphael Sánchez, Research Technologists from the RCMI Core Center for Research Resources, the training was offered as part of the Practical Approach to Molecular Biology (PAMB) course. This experience provided our trainees with valuable opportunities to develop practical skills, gain exposure to advanced molecular technologies, and further strengthen their research preparation as emerging biomedical scientists.

Building skills, exploring new technologies, and strengthening the next generation of biomedical scientists!



RESEARCH AND PUBLICATIONS

We are proud to celebrate the research accomplishments of our trainees and the mentorship that supports their development as emerging scientists. These publications highlight the dedication, scientific engagement, and collaborative efforts of our trainees and faculty mentors.

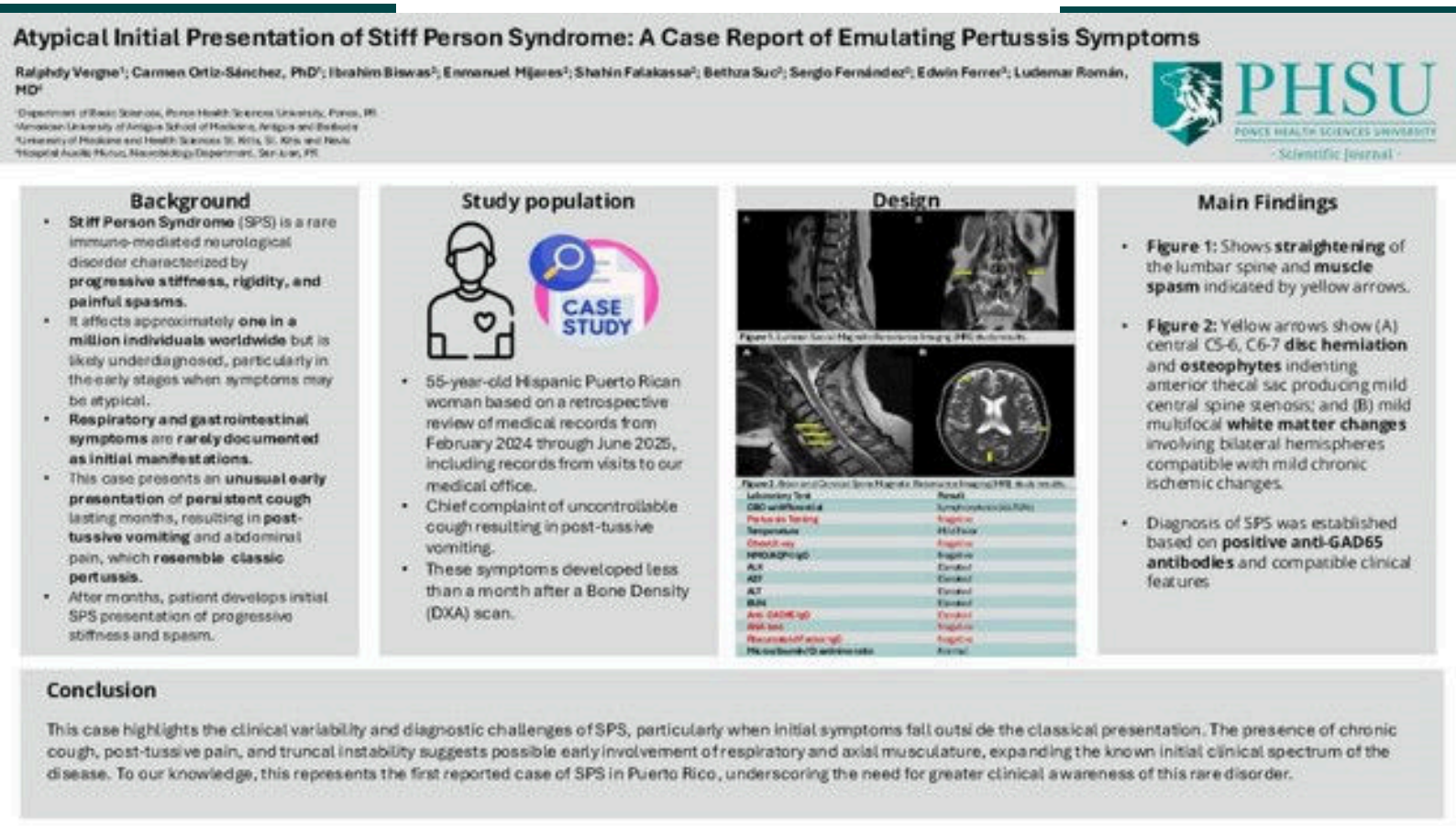
We congratulate our trainees on these achievements and look forward to celebrating many more contributions to scientific research throughout their training journey!

Recent Publications

Student Spotlight: Two Publications for Ralphdy Vergne

Ralphdy Vergne — First-Year PhD Student & NIH T32 Trainee
Mentor: Dr. Carmen Ortiz-Sánchez

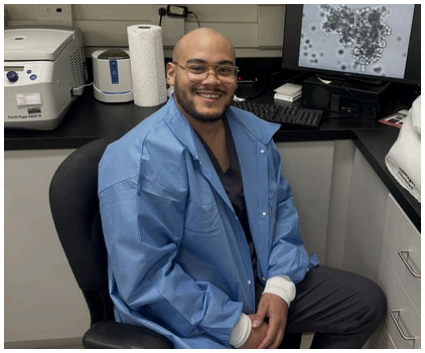
•Atypical Initial Presentation of Stiff Person Syndrome: A Case Report of Emulating Pertussis Symptoms, featured in the PHSU Scientific Journal Special Edition for the 20th Annual PHSU-PRI Scientific Conference.



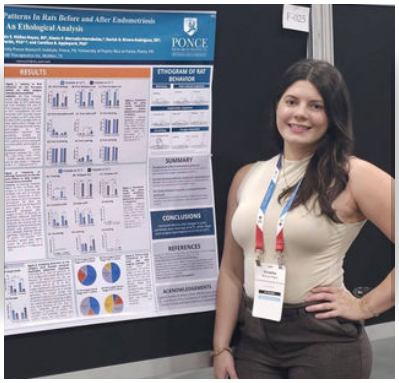
•A research article in Scientific Reports, published August 17, 2026. As a co-author, Ralphdy contributed to a study examining how DNA methylation modulation with 5- Azacytidine affects EMT markers and invasiveness in docetaxel-resistant prostate cancer cells, advancing our understanding of cancer progression and treatment resistance.

Read more: https://doi.org/10.1038/s41598-026-66577-z

Congratulations, Ralphdy! We look forward to seeing your continued growth and contributions to biomedical research.



Vivianka Ramos — Third-Year PhD Student & NIH T32 Trainee
Mentor: Dr. Caroline Appleyard



Vivianka Ramos, an NIH T32 trainee in Dr. Caroline Appleyard's Laboratory, will publish her first-author research article in the Ponce Health Sciences University Scientific Journal:

"Temperature-dependent ethological responses in the hot plate test before and after endometriosis induction surgery in rats."

Her study examines how temperature during hot plate testing influences pain-related behaviors in a rat model of endometriosis, highlighting the importance of standardized testing conditions for reliable and reproducible research.

PROFESSIONAL DEVELOPMENT: GENERATIVE AI AND DEVELOPMENT PLANNING



T32 trainees and faculty participated in a professional development session led by **Dr. Annelyn Torres-Reverón**, "How Generative AI Can Help Development Planning: Best Practices and Limitations." The interactive session explored the thoughtful and responsible use of generative AI as a tool to support the **Individual Development Plan (IDP)** process, with emphasis on critical thinking, human oversight, and effective development planning.

Participants gained practical insights into how AI can complement, rather than replace, the reflection and decision-making involved in academic and professional development.

PROFESSIONAL DEVELOPMENT: CHALK TALK OVERVIEW

On September 4, 2026, Dr. James Porter led a Professional Development session for our T32 trainees focused on understanding the Chalk Talk format and its role in scientific training. The session introduced Chalk Talks as an interactive approach that allows trainees to present ongoing research, explore scientific questions, and receive constructive feedback from faculty, peers, and invited researchers.



Dr. Porter emphasized that Chalk Talks are designed not only to strengthen scientific communication and presentation skills, but also to promote critical thinking, research design, and scientific rigor. Through discussion of competing hypotheses and experimental approaches, trainees are challenged to consider alternative explanations, identify appropriate controls, interpret potential outcomes, and determine which experiments would most effectively address their research questions.

The session highlighted the value of active discussion and mentorship in the research process, encouraging trainees to view feedback and scientific questioning as opportunities to refine their ideas and strengthen their experimental approaches.

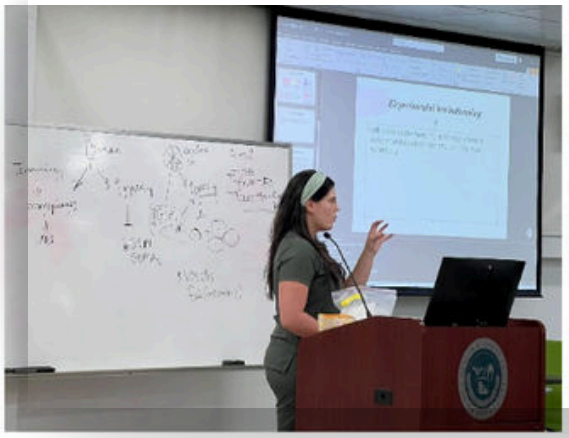
T32 TRAINEES PRESENT THEIR FIRST CHALK TALKS

Following Dr. James Porter's introduction to the Chalk Talk format, our T32 trainees put their newly developed skills into practice during their first Chalk Talk presentations. The session provided an opportunity for trainees to present their research questions and engage in scientific discussion, while receiving feedback designed to strengthen their research approaches and scientific communication skills.

We congratulate our student presenters, for leading the inaugural Chalk Talk presentations:

•Vivianka Ramos: Targeting GLP-1 Receptor Signaling through Agonism an Exercise to Reduce Endometriosis Burden and Pain

•Dorca Marcano: Role of Neutrophils and Neutrophil Extracellular Traps in Dengue Virus Pathogenesis





THE GRADUATE STUDENT PORTFOLIO SESSION

On September 25, our PhD Biomedical Sciences Program Manager, Jean Marie Schmidt, led a session on the Graduate Student Portfolio, a required component of our T32 graduate training program and a valuable tool for documenting students' academic and professional development.

The session featured an interactive, peer-led component with senior trainees Dorca Marcano, Axel Ufarry, Vivianka Ramos, and Adrian Márquez, who shared their portfolios, experiences, and feedback received from their research mentors. Their insights offered trainees a firsthand look at how a portfolio evolves throughout graduate training and how it can support reflection, growth, and preparation for future academic and professional opportunities.

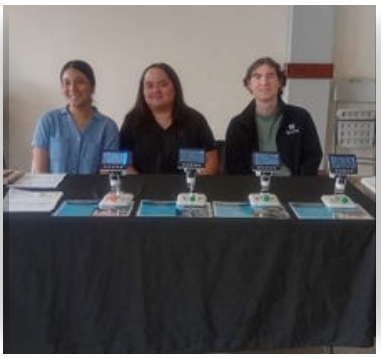
Reflecting, growing, and preparing for what's next!





OUTREACH & COMMUNITY ENGAGEMENT

July 23, 2026





We proudly recognize the members of Dr. Vanessa Rivera-Amill's Laboratory for their participation in a community outreach activity for older adults sponsored by the Puerto Rico Department of Treasury and held in Aibonito, PR, on July 23.

Adrián Márquez, third-year student in the PhD Program in Biomedical Sciences at Ponce Health Sciences University and trainee in the PRI-PHSU T32 Graduate Training Program, along with medical student Kaila Vega Moya and UPR Ponce undergraduate student Itzamarie Alvarado, both summer students in the Rivera-Amill Laboratory, joined efforts to bring important public health information to the community.

During the activity, the students hosted an informational table focused on the mosquito life cycle and dengue disease prevention, sharing science-based knowledge to promote awareness and empower community members with valuable public health information. This initiative highlights the commitment of our students and faculty mentors to extending scientific knowledge beyond the laboratory and making a meaningful impact in our communities.

July 30, 2026

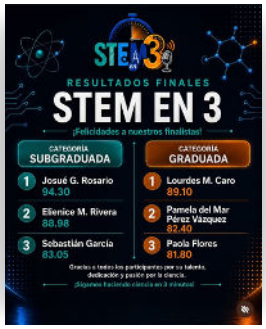
Celebrating the community engagement efforts of our third-year T32 trainee, Vivianka Ramos, from Dr. Caroline Appleyard's laboratory!



Vivianka participated in a community outreach activity at Hogar Casa Aibonito, where she delivered an educational talk on inflammatory bowel disease, promoting health awareness and helping community members better understand this important health condition.

We are proud of Vivianka's commitment to sharing scientific knowledge beyond the laboratory and representing the values of our PhD Program in Biomedical Sciences.

August 29, 2026



On August 29, our program proudly celebrated two outstanding students recognized at STEM en 3, an initiative of Ciencia en Tus Manos that highlights university students and graduates who excel in research and science communication, helping make scientific work accessible and engaging to the broader community.

Congratulations to our students:

🏆 Lourdes M. Caro — 1st Place Award, Graduate Category
Dr. Ramos' Lab

🥉 Paola N. Flores — 3rd Place Award, Graduate Category
Dr. Rivera-Amill's Lab



We are proud of Lourdes and Paola for their accomplishments and for their commitment to sharing science with the community. Their recognition reflects the value of combining strong research with effective science communication.

September 11,2026



Graduate student Adrián Márquez, a member of Dr. Vanessa Rivera- Amill's laboratory, took his scientific knowledge beyond the laboratory and into the community. Adrián visited Golden Village, a Senior Housing Community, where he presented an educational talk on dengue to its residents.

This outreach initiative highlights the important role graduate students can play in connecting research with the communities they serve. By sharing information about dengue and promoting awareness of prevention, symptoms, and warning signs, Adrián helped bring valuable public health knowledge directly to older adults in the community.



We are proud of Adrián for representing Dr. Rivera-Amill's laboratory and our graduate program through this meaningful outreach effort and for demonstrating that scientific training extends beyond research—it also provides opportunities to educate, engage, and serve the community.

September 15, 2026



On September 15, Adrián Márquez, a third-year PhD student in Biomedical Sciences and T32 trainee in the Rivera-Amill Lab, participated virtually as a panelist in the "¿MD o PhD? Conoce dos caminos profesionales en la ciencia: Medicina e Investigación" event organized by MicroCayey at the University of Puerto Rico at Cayey.

Along with other students and young scientists pursuing careers in medicine and research, Adrian was invited to share his academic journey, from his undergraduate studies to his current path as a doctoral student.

During the panel, Adrian discussed his experience pursuing a PhD in Biomedical Sciences in Puerto Rico, with a particular focus on his experience in the PHSU Biomedical Sciences PhD Program. He also shared some of the experiences, opportunities, and support that have contributed to his academic and research development.

Adrian's participation in this initiative, which provided an opportunity for him to share his journey and offer prospective students a firsthand perspective on pursuing a career in biomedical research.

CELEBRATING ACADEMIC MILESTONES



Please join us in congratulating Adrian Márquez, third-year student and T32 trainee from the Dr. Vanessa Rivera-Amill Laboratory, on successfully completing Part 2 of his Ph.D. Qualifying Examination (Oral Examination) on September 28, 2026.

This important milestone marks Adrian's advancement to Ph.D. candidacy in Biomedical Sciences and reflects his continued progress in his doctoral training and research.