# PR-INBRE

Advancing Competitive Biomedical Research in Puerto Rico

## Note From Our Pl

By Dr. Jose R. Rodríguez-Medina

#### PR-INBRE at a crossroads.

This year, the PR-INBRE has transitioned beyond the halfway mark of its 2021-2026 cycle, marking three years of implementation of our research plan. We are now beginning to see that our planted seeds are bearing fruit. One of two PUI investigators who achieved independent status as NIH-funded researchers is highlighted. One success story is a new R15 awarded to Dr. David Sanabria at the Interamerican University of Puerto Rico Metro campus. This achievement was repeated by Dr. Loyda Mendez, who renewed as an R15 investigator at Ana G. Mendez University, Carolina campus. Both were previously PR-INBRE-funded RPLs. We are thrilled by these accomplishments and hope they will inspire colleagues at network PUIs to pursue careers in biomedical research.

### **Collaboration Agreements**

By Christina Vega

The Inter-American University of Puerto Rico (IAUPR), a PR-INBRE participating university, recently entered into a collaboration agreement with West Virginia University (WVU) in West Virginia. This partnership aims to strengthen academic, scientific, and cultural ties and join their efforts to develop activities in areas of common interest. As such, the Science and Technology Competency Education (STCE) Core of PR-INBRE coordinated and sponsored the second exchange of students from Puerto Rico for the Summer Internship Program together with the WV-INBRE under the aforementioned agreement.

After an exhaustive search for candidates based on academic performance, interest in biomedical sciences, laboratory skills, dedication to research, and willingness to participate in the program, two undergraduate students were selected from the IAUPR to work under the mentorship of Dr. Sharan Kumar Reddy Bobbala. Likewise, two undergraduate students from the WVU were chosen to be guided by Dr. David Sanabria at the IAU-Metro campus in Puerto Rico. OCTOBER / 2024 / ISSUE #2

#### WHAT'S NEW

#### RESEARCH ROADMAP

Learn about Dr. David Sanabria-Ríos's path towards research excellence

#### NEW TECHNOLOGIES

The PR-INBRE CRI has a new, state-of-the-art flow cytometer instrument

#### CONGRATULATIONS

Join us in congratulating PR-INBRE researchers for their achievements



Undergraduate students from the PR-INBRE Network who participated in the STCE 2024 Puerto Rico Summer Internship Program.

### **Research Roadmap**

By Dr. David Sanabria-Ríos



Dr. David Sanabria-Ríos and research students conduct activities to uncover novel antibacterial agents that could potentially treat bacterial infections.

I discovered my true passion for chemistry in college at the University of Puerto Rico. It was not just the textbooks that sparked my interest but the incredible professors who made chemistry come alive in the classroom. It was like a lightbulb moment; I knew I had to dive deeper into this incredible field.

I am the first in my family to pursue a Ph.D. in Chemistry, facing various academic challenges, including a heavy workload, complex material, time management issues, research challenges, language barriers, economic constraints, and adjusting to new environments. Throughout this journey, I have developed the determination, exerted effort, and demonstrated the ability to overcome these challenges. The crucial lesson learned from this process is understanding that tackling challenges leads to personal and professional growth. Confronting challenges revealed my strength; each obstacle transformed into an opportunity for development and improvement. With all my hard work and learning how to collaborate, I have achieved one of my professional goals, which is my recent NIH R15GM143681 Award

In the future, I see myself making a big difference in teaching chemistry and helping students become excellent researchers in the drug discovery field. My mission is to discover new substances that can be used as medicines to fight bacterial infections and diseases such as cancer. Doing these things makes me pleased and excited every day in my work field.

## **New Technologies**

By Dr. Beatriz Zayas-Rivera



The Centralized Instrumentation Core (CRI) is happy to announce the acquisition of an Invitrogen Attune NxT Flow Cytometer from ThermoFisher Scientific. now located at the ChEMTox In-vitro Laboratory at the Ana G. Méndez University (UAGM, by its Spanish acronym) Cupey Campus. This state-of-the-art flow cytometer is an advanced and highly sensitive cell analyzer that can be applied in multiple types of research. If you need a specialist to provide analysis or training on cell toxicity assays, genomics, metabolomics, and proteomics, feel free to contact us at bzayas@uagm.edu.



An example of the automated image analysis provided by the new Invitrogen Attune NxT Flow Cytometer that is located in the ChEMTox In-vitro Laboratory, which is directed by Dr. Beatriz Zayas-Rivera.

### **Congratulations PR-INBRE Researchers!**



Dr. Suranganie Dharmawardhane and Dr. Ailed Cruz-Collazo are among this year's Susan G. Komen 2024-2025 ASPIRE grant awardees, which intends to enhance diversity within the breast cancer research workforce. For more details, please visit the

Susan G. Komen Grants Announcement.

