

# 44<sup>th</sup> Annual Research and Education Forum

at the University of Puerto Rico Medical Sciences Campus

## Explore, Share, and Connect



from March 13 to 15, 2024





# 44<sup>th</sup> Annual Research and Education Forum





## WELCOME MESSAGE

### Medical Sciences Campus Interim Chancellor

Dear Attendees,

It is with great pleasure that I welcome you to the University of Puerto Rico Medical Sciences Campus 44th Annual Research and Education Forum. This event is a testament to our dedication to teaching health sciences professionals to conduct research that fosters scientific breakthroughs while addressing societal needs and promoting well-being. Our academic community's dynamism and desire to be at the forefront of health sciences in Puerto Rico are reflected in this forum.



I would like to express my sincere gratitude to the Organizing Committee for their exceptional commitment and hard work in making this forum possible. I extend special thanks to Dr. Carmen L. Cadilla Vázquez, the President, and Dr. Efraín Flores Rivera, the Coordinator, for their leadership and dedication as the Interim Dean of Academic Affairs and Interim Director of the Conrado Asenjo Library respectively.

During the next three days, let's take advantage of this opportunity to learn, exchange ideas, and establish connections. Together, we can push the boundaries of knowledge and achieve excellence in our pursuits. Our combined efforts should not only shape the future of health sciences but also make significant contributions to the communities we serve.

I am confident that your participation in this forum will be both rewarding and inspirational.

Dharma Vázquez Torres, PhD  
Interim Chancellor  
University of Puerto Rico  
Medical Sciences Campus



# 44<sup>th</sup> Annual Research and Education Forum

## WELCOME MESSAGE

### Interim Dean for Academic Affairs



I am pleased to extend a heartfelt welcome to all attendees at the University of Puerto Rico Medical Sciences Campus 44th Annual Research and Education Forum. True to our inspiring motto *Explore, Share, and Connect*, this year's forum seeks to foster intellectual growth and celebrate the spirit of discovery that distinguishes our campus.

This year the forum will feature an impressive array of 156 oral and poster presentations. These represent the innovative work of students, faculty, and researchers from the UPR Medical Sciences Campus, other campuses of the UPR System, and private universities in Puerto Rico, the United States, and the world. This diverse participation underscores the forum's significance as a platform for sharing groundbreaking research and fostering new partnerships across the health sciences.

We are honored to host four distinguished plenary speakers, leaders in their fields, who will provide invaluable insights and foster enriching discussions. These include Dr. Paul Harris, Dr. Mariola Espinosa, Dr. Jesús G. Valenzuela, and Dr. Salvatore Sauro, who will address diverse topics such as the *All of Us* research initiative, medical professionalization in early 20<sup>th</sup> century Puerto Rico, vector borne diseases, and dental biomaterials in minimally invasive dentistry.

The breadth of topics covered by our esteemed plenary speakers and in our oral and poster presentations, promises to make this year's forum an unparalleled opportunity for academic exchange, networking, and collaboration. I am confident that the 44th Annual Research and Education Forum will be an engaging and memorable experience for all.

Carmen L. Cadilla Vázquez, PhD  
Interim Dean for Academic Affairs  
University of Puerto Rico Medical Sciences Campus and  
President Organizing Committee  
44th Annual Research and Education Forum



## ORGANIZING COMMITTEE

Carmen L. Cadilla Vázquez, PhD  
Interim Dean for Academic Affairs  
& President Organizing Committee

### Deanship for Academic Affairs

Efraín Flores Rivera, MLS, EdD  
Librarian IV  
Interim Library Director  
Coordinator of the Organizing Committee

Carlos A. Ortiz Reyes, PhD(c)  
Director  
RCM Online Division

### School of Medicine

Sandra I. Ralat Rivera, PhD, MSc  
Assistant Professor  
Department of Psychiatry  
School of Medicine

Natalia Valentín Carro MS, PhD  
Assistant Professor  
Department of Anatomy & Neurobiology  
School of Medicine

Antonio H. Martins, PhD, MSc  
Associate Professor  
Department of Pharmacology and Toxicology  
School of Medicine

### School of Pharmacy

José O. Colón Sáez, PhD  
Associate Professor  
Department of Pharmaceutical Sciences

### School of Dental Medicine

Milagros J. Toro Arrivillaga, DDS, MSD, PhD  
Associate Professor  
Surgical Sciences Department  
Diagnostic Sciences Section

Augusto Elías Boneta, DMD, MSD  
Professor  
Assistant Dean for Research

### School of Nursing

Solymer Solís Báez, BA  
Director  
Center for Research and Evidence-Based  
Practice

Carmen Mabel Arroyo Novoa, PhD, MSN, MSc,  
RN, FCCM  
Professor  
PhD in Nursing Program

### School of Health Professions

Elinette M. Albino Rodríguez, MT, PhD, MSc  
Associate Professor  
Clinical Laboratory Sciences Program

Rosa Román Oyola, PhD, MEd, OTR/L  
Professor  
Occupational Therapy Program



# 44<sup>th</sup> Annual Research and Education Forum

## **Graduate School of Public Health**

Ana M. Parrilla Rodríguez, MD, MPH, FABM,  
IBCLC, FACCE, LCCE  
Professor  
Human Development Department

Nirzka M. Labault Cabeza, PhD, MPH, RPh  
Professor  
Gerontology Program  
Human Development Department

## **Deanship of Student Affairs**

Carlos J. Cañuelas Pereira, EdD, CPL  
Counselor II  
Director  
Student Center for Counseling and Psychology (CECSI)





## SCIENTIFIC PROGRAM

**First Day – Wednesday, March 13, 2024**

### **8:00 to 9:00 am - REGISTRATION**

*Location: Hallway & Foyer adjacent to the School of Medicine Amphitheaters 3<sup>rd</sup> floor, Dr. Guillermo Arbona Building*  
Continental breakfast at the registration site

### **9:00 to 9:30 am - OPENING SESSION**

*Location: School of Medicine Amphitheater I 3<sup>rd</sup> Floor, Dr. Guillermo Arbona Building*

Welcoming Remarks by University Academic Leaders

Luis A. Ferrao Delgado, PhD - UPR President

Dharma Vázquez Torres, PhD, MHSA  
MSC Interim Chancellor

Carmen L. Cadilla Vázquez, PhD  
MSC Interim Dean for Academic Affairs  
President Organizing Committee  
44<sup>th</sup> Annual Research and Education Forum

### **9:30 to 10:30 am**

### **FIRST PLENARY SESSION - INAUGURAL**

#### **What's New and What's Next with the All of Us Research Program and the REDCap Consortium**

Keynote Speaker:

#### **Paul Harris, PhD**

Vice President for Research Informatics  
Associate Director, Vanderbilt Institute for Clinical and Translational Science Professor,  
Department of Biomedical Informatics,  
Biostatistics, and Biomedical Engineering  
Vanderbilt University Medical Center

Moderator:

Kyle Melin, PharmD, MSc, BCPS, AE-C  
Associate Professor  
School of Pharmacy

### **10:30 to 10:45 am**

Questions and Answers Session

### **11:30 am to 1:00 pm - 1<sup>st</sup> POSTER SESSION**

*Location: Conrado F. Asenjo Library, 4th Floor*

See the list of posters at the end of this program.

### **1:20 to 3:00 pm - 1<sup>st</sup> ORAL CONCURRENT SESSION**

*Location: Room 12, Graduate School of Public Health  
4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Sandra I. Ralat Rivera, PhD, MSc  
Assistant Professor, Department of Psychiatry  
UPR-MSC School of Medicine

**Exploración de la relación que tiene el uso de videojuegos con la ansiedad generalizada en estudiantes universitarios.** Alejandro Villegas Soto, Julián A. Aponte Zabala, Alondra G. García Rosa, Andrea P. Torres Lebrón, Valeria Rodríguez Marcano, Alanis Maldonado Negrón, Nuria I. Díaz Fischbach, & Yamil O. Ortiz Alanís. Universidad de Puerto Rico, Recinto de Río Piedras. **(001)**

# 44<sup>th</sup> Annual Research and Education Forum

**Engagement in Activities to Manage Undesirable Stress/Emotions and Symptoms of Anxiety, Depression, and Fear of Infection During the COVID-19 Pandemic.** Laura P. La Luz-Barrios, Eduardo Cumba-Avilés, Paola M. Rivera-Arroyo, & Sebastián A. Quintana-Rodríguez. University of Puerto Rico, Río Piedras Campus. **(002)**

**Hispanic Caregivers' Challenges and Barriers When Facing Type 1 Diabetes in their Adolescent Offspring.** Mónica C. Nieves-Molina, Amanda S. Varona-Negrón, Carlos J. Ríos-Miranda, Sebastián A. Quintana-Rodríguez, Alejandra S. Cuff-Morales, Paola M. Rivera-Arroyo, Laura La Luz-Barrios, Marleana M. Rolón-Sanfeliz, Eduardo Cumba-Avilés, & María I. Jiménez-Chafey. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico. **(003)**

**Engagement in Pleasant Activities Relates to Reduced Loneliness, Posttraumatic Stress, and Death/Self-Harm Thoughts During the COVID-19 Pandemic.** Sebastián A. Quintana-Rodríguez, Eduardo Cumba-Avilés, Laura P. La Luz-Barrios, & Paola M. Rivera-Arroyo. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico. **(004)**

**Experiencias de familiares de pacientes hospitalizados con diagnóstico de COVID-19 conectados con videollamadas.** Mario Robles-Acosta, Alexandra Peña-Cartagena, Elisabet Pérez-Rodríguez, Solymar Solís-Báez, Lourdes Irene-López, Milagros I. Figueroa-Ramos, & Carmen Mabel Arroyo-Novoa. Universidad de Puerto Rico, Recinto de Ciencias Médicas. **(005)**

**Universal Intimate Partner Violence (IPV) screening & counseling among women living with HIV: preliminary results.** Carmen D. Zorrilla, Marianela Rodríguez, Vicmarie Vargas Álvarez, Ana M. Mosquera, Dariangelys Rivera Vázquez, & Hiram A. Santiago Rivera. UPR-MSC Maternal Infant Studies Center (CEMI). **(006)**

## 1:20 to 3:00 pm – 2<sup>nd</sup> ORAL CONCURRENT SESSION

*Location: Room 13, Graduate School of Public Health  
4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Natalia Valentín Carro, MS, PhD  
Assistant Professor  
Department of Anatomy & Neurobiology  
UPR- School of Medicine

**Assessing the Impact of Vaccination on the Reemergence of Canine Rabies.** Adriana M. Nieves, Ernesto P. Esteban. University of Puerto Rico, Humacao, Puerto Rico. **(007)**

**Plasma proteins associated with COVID-19 severity in Puerto Rico.** Lester J. Rosario-Rodríguez, Yadira M. Cantres-Rosario, Kelvin Carrasquillo-Carrión, Ana E. Rodríguez de Jesús, Verónica Rivera-Nieves, Alexandra Rosa-Díaz, Loyda B. Méndez, Abiel Roche-Lima, Jorge Bertrán, & Loyda M. Meléndez. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus; Auxilio Mutuo Hospital. **(008)**

**The anti-SARS-CoV-2 IgG1 and IgG3 antibody isotypes against Omicron elicited in a Latin population switch toward IgG4 after multiple doses with the Pfizer-BioNTech vaccine.** Ana M. Espino, Albersy Armina-Rodríguez, Laura Álvarez, Carlimar Ocasio, Riseilly Ramos, Esteban I. Rodríguez Martínó, Paola López-Marté, Esther A. Torres, & Carlos A. Sariol. University of Puerto Rico, Medical Sciences Campus. **(009)**

**Unlocking the Potential of Simalikalactone D as an Anticancer Agent in Ethnically Diverse Breast Cancer Populations.** Annelis O. Sánchez-Álvarez, Pablo E. Vivas-Mejía, & Claudia A. Ospina. University of Puerto Rico, Comprehensive Cancer Center; University of Puerto Rico, Medical





Sciences Campus; Inter American University of Puerto Rico, Bayamón Campus. **(010)**

**On-Treatment Platelet Reactivity Variability in a Cohort of Puerto Rican Hispanics Receiving Dual Antiplatelet Therapy with Clopidogrel and Aspirin for Brain Aneurysms Treated using Flow Diverting Stents.** Esteban R. Rivera Rivera, Nicolás Baerga Saldaña, Andrea Saldaña Acerbo, Santiago Gómez, Juan M. Ramos Acevedo, & Rodolfo E. Alcedo Guardia. University of Puerto Rico, Medical Sciences Campus; University of San Diego; Mount Sinai Hospital. **(011)**

**Fatty Liver Infiltration Among a Sample of Pediatric Patients in Puerto Rico.** Ariana Alvarado, Gabriel O. Camareno Soto, Camille Vélez, Claudia Ramírez, Loida A. González-Rodríguez, Wilma Rodríguez-Mojica, & Bárbara L. Riestra-Candelaria. Universidad Central del Caribe; University of Puerto Rico, Medical Sciences Campus. **(012)**

## **1:20 to 2:45 pm – 3<sup>rd</sup> ORAL CONCURRENT SESSION**

*Location: Room 15, Graduate School of Public Health  
4<sup>th</sup> floor Dr. Guillermo Arbona Building*

Moderator:

José Colón Sáez, PhD  
Associate Professor  
Department of Pharmaceutical Sciences  
School of Pharmacy

## **A Rare Risk Factor for Pediatric Deep Vein Thrombosis**

Exa Mejías, Yulevymar Bermúdez, Claudia Mangual, Rosa Díaz Torres, Moisés García. Department of Pediatrics, Pediatric Hospital of Puerto Rico; University of Medicine and Health Sciences, Saint Kitts, West Indies. **(013)**

**Salmonellosis: more than a gastrointestinal disease.** Carmen Plaza Mejías, Moidalidys Alcocer Rodríguez, Pablo González Sánchez, Inés Esquilín Rivera. University of Puerto Rico, Medical Sciences Campus. **(014)**

**Golf cart-related neurosurgical injuries.** Orlando De Jesús. University of Puerto Rico, Medical Sciences Campus. **(015)**

**International Classification of Retinopathy of Prematurity 3 (ICROP) and a Case for a Paradigmatic Shift.** Raúl Pérez, Inés García, & Juan Rivera. University of Puerto Rico, Medical Sciences Campus. **(016)**

**Experiencia de utilización de telemedicina antes y después del COVID en Puerto Rico.** Wendy Matos-Negrón & Litz Príncipe. Universidad Central del Caribe; Puerto Rico Science, Technology & Research Trust. **(017)**



# 44<sup>th</sup> Annual Research and Education Forum

## SPECIAL CONFERENCE

**First Day – Wednesday, March 13, 2024**

Amphitheater Dr. Araceli Ortiz (B-103)

School of Dental Medicine

1<sup>st</sup> floor Dr. Guillermo Arbona Building

3:30 pm



### **Mental Health Initiatives: Integrated Mental Health Department**

José A. Ortiz Rodríguez, MD, CHCQM, CHCQM-PHYADV, CHCQM-PSRM  
Corporate Medical Director – Mental Health, MMM Holdings (PR)  
Director of Medical Operations, Elevance Health (US)

Moderator:

Lelis L. Nazario Rodríguez, MD  
Professor  
Child and Adolescent Psychiatrist  
Child and Adolescent Fellowship Program Training Director

### **Biosketch**

Dr. José A. Ortiz, a psychiatrist with 20 years of experience in mental health in Puerto Rico, earned his Doctor of Medicine degree in 2000 from the University of Puerto Rico School of Medicine. He completed his Psychiatry Residency Program in 2004, serving as Chief Resident in his final year. With extensive clinical experience spanning outpatient to inpatient care, Dr. Ortiz has excelled in both governmental agencies and premier private institutions. His administrative roles include Faculty President and Director of Medical Utilization at First Hospital Panamericano. Since 2013, he has consulted for MSO of Puerto Rico's Integrated Mental Health Department, now serving as its Medical Director. In 2022, following his receipt of the 2020 MSO of Puerto Rico Excellence in Innovation Award and the 2023 MMM Corporate Citizenship Award, he assumed the role of Corporate Medical Director of Mental Health. Dr. Ortiz is Puerto Rico's sole psychiatrist certified by the American Board of Quality Assurance and Utilization Review Physicians, with sub-specializations in Physician Advisor and Patient Safety. He's pivotal in developing clinical programs like Care Transition and Burnout Prevention, uniquely benefiting providers in Puerto Rico.



## Conference Summary

In a continuous pursuit of innovation for the health and well-being of our community, the Integrated Mental Health Department is proud to have established two pivotal programs: the Burnout Program and the My Emotions App.

The Burnout Program addresses the increasing stress and burnout healthcare providers face. This challenge has become all too familiar in today's fast-paced environment. This comprehensive initiative encompasses structured activities such as data collection on stress factors, creating in-depth profiles for each provider, and implementing targeted interventions. It also includes a robust educational framework and training to equip providers with the tools to manage and mitigate circumstances that typically lead to burnout.

Parallel to this, we have introduced the My Emotions App, a digital tool developed by MMM's Integrated Mental Health Department, which symbolizes a significant leap forward in providing our members with autonomous access to mental health and substance abuse screenings. This app allows members to complete screenings at their convenience, using any smart device, and immediately receive personalized feedback based on their responses. It also directly links to our mental health call center, ensuring members are only a touch away from professional support.

Should the app identify a member as being at risk, it triggers an alert within our call center. This prompt enables our representatives to reach out via telephone to assess the member's condition, verify the level of risk, and, if necessary, arrange for the appropriate subsequent level of care. This seamless integration of technology and personal touch guarantees that our members receive comprehensive care that is immediate and attuned to their needs.



# 44<sup>th</sup> Annual Research and Education Forum

**Second Day – Thursday, March 14, 2024**

## **8:00 to 9:00 am – REGISTRATION**

*Location: Hallway & Foyer adjacent to  
the School of Medicine Amphitheaters  
3<sup>rd</sup> floor*

*Dr. Guillermo Arbona Building*

Continental breakfast at the registration site

## **9:00 to 10:00 am**

*Location: School of Medicine Amphitheater I  
3<sup>rd</sup> Floor, Dr. Guillermo Arbona Building*

## **SECOND PLENARY SESSION - HISTORY OF HEALTH**

**Medical Ethics and Miraculous Treatments:  
Medical Professionalization in Puerto Rico at  
the Beginning of the 20th Century** (Conferencia  
en español)

Keynote Speaker:

### **Mariola Espinosa, PhD**

Associate Professor  
Department of History  
University of Iowa

Moderator:

Raúl Mayo Santana, PhD  
Emeritus Professor  
University of Puerto Rico  
Medical Sciences Campus

## **10:00 to 10:15 am**

Questions and Answers Session

## **10:15 to 10:45 am**

Installation of Dr. Mariola Espinosa as an  
Associate Researcher of the History of Health

Sciences Institute (IHICIS, Spanish acronym) of  
the UPR-Medical Sciences Campus  
Hiram V. Arroyo Acevedo, EdD, MPHE  
Director, History of Health Sciences Institute  
(IHICIS)

## **11:00 am to 12:45 pm**

*Location: School of Medicine Amphitheater I  
3<sup>rd</sup> Floor, Dr. Guillermo Arbona Building*

## **THIRD PLENARY SESSION - 62<sup>ND</sup> BAILEY K. ASHFORD MEMORIAL LECTURE**

**Impact of Vector-Derived Factors on  
Parasite Establishment and Determinants of  
Vector Infection and Transmission**

Keynote Speaker:

### **Jesús G. Valenzuela, PhD**

Vector Molecular Biology Section  
Laboratory of Malaria and Vector Research,  
NIAID, NIH

Moderator:

Nivia L. Pérez Acevedo, MS, PhD  
Interim Associate Dean of Biomedical Sciences  
Director of Graduate Program  
School of Medicine

## **12:30 to 12:45 pm**

Questions and Answers Session

## **11:30 am to 1:00 pm - 2<sup>ND</sup> POSTER SESSION**

*Location: Conrado F. Asenjo Library, 4th Floor*

See the list of posters at the end of this  
program.



## **1:20 to 3:00 pm - 4<sup>th</sup> ORAL CONCURRENT SESSION**

*Location: Room 12, Graduate School of Public Health  
4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Nirzka M. Labault Cabeza, PhD, MPH, RPH  
Professor  
Gerontology Program  
Human Development Department  
Graduate School of Public Health

**Una intervención interdisciplinaria para el desarrollo de habilidades sociales en estudiantes con doble excepcionalidad.** Ana Miró Mejías & Nellie Zambrana Ortiz. Universidad de Puerto Rico, Recinto de Río Piedras. **(018)**

**Perfil interdisciplinario de la doble excepcionalidad (2e) en Puerto Rico: Redes de apoyo formales e informales.** Nancy Viana-Vázquez. Universidad de Puerto Rico, Recinto de Río Piedras. **(019)**

**Access to Assistive Technology: Evaluation of the Quality of My Assistive Technology Guide Web App from the Perspective of Older Adults with Functional Disabilities.** Elsa M. Orellano-Colón, Gabriela A. Torres-Ferrer, Angelis Fernández-Torres, Nixmarie Figueroa-Alvira, Bernice Ortiz-Vélez, & Nina L. Rivera-Rivera. University of Puerto Rico, Medical Sciences Campus. **(020)**

**A Qualitative Study about the Employment of People with Legal Blindness Condition in Puerto Rico.** Iliá M. Torres-Avillán, Carmen M. Vélez-Vega, Edgardo Ruiz-Cora, Maribel Báez-Lebrón. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus. **(021)**

**Qualitative Outcome Evaluation for Intimate Partner Violence Program Designed for a Health Clinic Workforce.** Omar Alicea, Ruth Soto, Fermarie Martínez Afanador, Víctor E. Reyes Ortiz. Puerto Rico CoNCRA, San Juan, PR. **(022)**

**Apresto Comunitario y Conocimiento del Equipo de Trabajo e Integrantes en la Formación de Coaliciones Comunitarias en Puerto Rico.** Yaritsha Toledo Fernández, Yesenia Delgado Castillo, & Verónica Carvallo Messa. Universidad Carlos Albizu; Universidad de Puerto Rico, Recinto de Río Piedras; Universidad de Puerto Rico, Recinto de Carolina. **(023)**

## **1:20 to 3:15 pm – 5<sup>th</sup> ORAL CONCURRENT SESSION**

*Location: Room 13, Graduate School of Public Health  
4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Antonio H. Martins, PhD, MSc  
Associate Professor  
Department of Pharmacology and Toxicology  
School of Medicine

**Screening of novel Rac/Cdc42 protein inhibitors as anti-metastatic compounds.** Jessica Colón González, María C. Santa María Fuentes, Cornelis Vlaar, & Suranganie Dharmawardhane. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus. **(024)**

**Genetic causes of heterotaxy in patients: Modeling *HOXB8* and *CFAP54* in *Xenopus tropicalis*.** Leslie D. Rodríguez, Saquib Lakhani, Emily K. Mis, & Mustafa K. Khokha. University of Puerto Rico, Medical Sciences Campus; Yale University School of Medicine, New Haven, Connecticut. **(025)**



# 44<sup>th</sup> Annual Research and Education Forum

## **The Role of Tip60-HAT in PDF Neuropeptide Expression and Alcohol Tolerance Acquisition.**

Miguel J. Álvarez-Cortés, Sebastián I. Morales-Cancio, Christian D. Del Valle-Colón, Nicolás L. Fuenzalida-Uribe, & Alfredo Ghezzi. University of Puerto Rico, Río Piedras Campus; UPR-MSI Institute of Neurobiology (026)

## **Impact of neoadjuvant radiation on lower esophageal and gastro-esophageal junction adenocarcinoma.**

Jaime A. Aponte-Ortiz, Paula Ruiz-Gil, Miguel Serpa-Irizarry, Priscilla Dávila-Pérez, Karla Rodríguez-Barragán, & Pablo Mojica-Mañosa. University of Puerto Rico, Medical Sciences Campus. (027)

**Antiplasmodial activity of anti-tubulin compounds and expression analysis of *Plasmodium falciparum*, *P. vivax*, and *P. berghei* tubulin genes.** Roberto G. Díaz González, Sergio Ramos Varela, Rafael Peláez, & Adelfa E. Serrano. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico, Medical Sciences Campus; University of Salamanca, Spain. (028)

**Ethanol-Induced Epigenetic Modifications: A Gateway to Altered Sleep Behavior in *Drosophila melanogaster*.** Sebastián I. Morales-Cancio, Miguel J. Álvarez-Cortés, Christian D. Del Valle-Colón, Nicolás L. Fuenzalida-Uribe, Alfredo Ghezzi. University of Puerto Rico, Río Piedras Campus. (029)

**Characterization of Myeloid-Derived Suppressor Cells in Response to Restraint Stress in Preclinical Models of Ovarian Cancer.** Yadiel A. Rivera-López, Alexandra N. Aquino-Acevedo, Yesenia Castillo Ocampo, Melanie Ortiz-León, Luinet L. Meléndez-Rodríguez, & Guillermo N. Armaiz-Pena. Ponce Health Sciences University. (030)

## **1:20 to 3:00 pm – 6<sup>th</sup> ORAL CONCURRENT SESSION**

*Location: Room 15, Graduate School of Public Health  
4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Solymar Solís Báez, BA

Director

Center for Research and Evidence-Based Practice  
School of Nursing

**Engaging healthcare providers, scientific, and community stakeholders in research through the Generating Research Opportunities Working Together for Puerto Rico Network.** Carlamarie Noboa, Enid J. García, & Loren A. Meléndez. University of Puerto Rico, Medical Sciences Campus; Ponce Health Sciences University. (031)

**Increasing Patient Attendance at Clínicas Padre Venard through a Community Outreach Program.** Gabriel O. Camareno Soto, Claudia Ramírez Marcano, & Alondra M. Soto González. Universidad Central Del Caribe. (032)

**Age variation in preventive vaccine uptake among women with HIV in the presence of high COVID-19 immunization rate in Puerto Rico.** Jessica Ibarra, Carmen D. Zorrilla, Cecilia Olmo, Karen Martínez, Adriana Hernández-Garayua, Carolina Bonet, & Ana Mosquera. University of Puerto Rico, Medical Sciences Campus, Maternal Infant Studies Center (CEMI) (033)

**Ocurrencia de “Diabetes Burnout” en adultos con Diabetes Mellitus Tipo 1 y su relación con el control en niveles de glucosa.** Nellian M. Ríos-Zayas, Roberto J. González-Crespo, Nancy Dávila-Ortiz. Universidad de Puerto Rico, Recinto de Ciencias Médicas. (034)



**Análisis de los elementos prevalentes asociados a la responsabilidad social corporativa en relación con los hospitales como elementos clave de los sistemas y sectores de salud.** Karen Agosto-Valentín, Ruth Ríos-Motta, Mario H. Rodríguez-Sánchez, & Roberto Ramírez-García. Universidad de Puerto Rico, Recinto de Ciencias Médicas. **(035)**

**Proyecto Interprofesional de Liderazgo Estudiantil en Profesionales de la Salud: Lecciones aprendidas en la implantación de una iniciativa innovadora.** Lypzia M. Vélez-Jiménez, Enid Rodríguez-Santos, Arnaldo Cruz-Rivera. Universidad de Puerto Rico, Recinto de Ciencias Médicas. **(036)**



# 44<sup>th</sup> Annual Research and Education Forum

**Third-Day – Friday, March 15, 2024**

## **8:00 to 8:45 am – REGISTRATION**

*Location: Hallway & Foyer adjacent to  
the School of Medicine Amphitheaters  
3<sup>rd</sup> floor - Dr. Guillermo Arbona Building*  
Continental breakfast at the registration site

## **8:45 AM – 9:00 AM**

*Location: Amphitheater 1, School of Medicine  
3<sup>rd</sup> floor - Dr. Guillermo Arbona Building*

Welcome

Aileen Torres Maymí, DMD  
Interim Dean

UPR – Medical Sciences Campus  
School of Dental Medicine

Augusto R. Elías Boneta, DMD, MSD  
Assistant Dean of Research  
UPR – Medical Sciences Campus  
School of Dental Medicine

## **9:00 AM – 10:00 AM**

### **FOURTH PLENARY SESSION SCHOOL OF DENTAL MEDICINE**

#### **Strategies to stabilise Dentine-bonded Interfaces - from bench to clinic.**

Keynote Speaker:

#### **Salvatore Sauro, PhD**

Professor and Dental Research Coordinator  
Universidad CEU-Cardenal Herrera,  
Valencia, Spain

Moderator:

Augusto R. Elías Boneta, DMD, MSD  
Assistant Dean of Research  
UPR – Medical Sciences Campus  
School of Dental Medicine

## **10:00 to 10:15 pm**

Questions and Answers Session

## **10:15 am to 12:15 pm - 7<sup>th</sup> ORAL CONCURRENT SESSION**

*Location: Amphitheater 1, School of Medicine  
3<sup>rd</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Ramón González García, DDS  
Professor  
Restorative Sciences Department  
UPR- Medical Sciences Campus  
School of Dental Medicine

#### **Periodontal Medicine: The Association between Systemic and Periodontal Disease.**

Gian D. Lourido-Martínez & Yollian M. Velázquez-  
González. University of Puerto Rico, Medical  
Sciences Campus.

## **11:00 to 11:15 am**

Questions and Answers Session

**A Case Presentation on Multifocal Mixed  
Periapical Lesion in Routine Radiographic  
Investigation.** Alyssa Fray. University of West  
Indies, Jamaica. (037)





**Dental Management of a Prostate Cancer Patient Scheduled for Radiation Therapy.** Keziah Laxman, Morrissa Roberts, & Thaon Jones. The University of the West Indies, Jamaica. **(038)**

**Excisional Biopsy in Focus: Investigating a Clinically Diagnosed Case of Oral Pyogenic Granuloma.** Leela Devi Sivaraj & Judith McKain-Rubin. Temple University, Pennsylvania, USA. **(039)**

**12:00 to 12:15 pm**

Questions and Answers Session

**11:30 am to 1:00 pm - 3<sup>rd</sup> POSTER SESSION**

*Location: Conrado F. Asenjo Library, 4th Floor*

See the list of posters at the end of this program.

**10:15 am to 12:15 pm - 8<sup>th</sup> ORAL CONCURRENT SESSION**

*Location: Room 12, Graduate School of Public Health*

*4<sup>th</sup> floor, Dr. Guillermo Arbona Building*

Moderator:

Ana M. Parrilla Rodríguez, MD, MPH, FABM, IBCLC, FACCE, LCCE

Professor

Human Development Department

UPR – Medical Sciences Campus

Graduate School of Public Health

**Alternative Procedure to Calculate the Basic Reproduction Number in Epidemiology.** Ernesto P. Esteban, & Lusmeralis Almódovar-Abreu. University of Puerto Rico, Humacao Campus. **(040)**

**The Vieques Septic Systems Project.** Jorge L. Nina. Department of Natural and Environmental Resources, Water Quality Area. **(041)**

**El acceso abierto en las revistas académicas electrónicas en temas de ciencias de la salud en el Arco Insular del Caribe.** Purísima Centeno-Alayón. Recinto de Río Piedras, Universidad de Puerto Rico. **(042)**

**Memorandum of Understanding (MOU): A Voluntary and Nonbinding Mode of Today's Research.** Reydi Morales-Martínez, Víctor E. Reyes-Ortiz, & Carlos Cabrera-Bonet. Puerto Rico CoNCRA, San Juan, PR. **(043)**

**It Is Always Better for Business to Know the Cost – An Exploratory Finance Study for Determining Patient Cost per Year.** Víctor E. Reyes-Ortiz, Antonio Delgado-Rosado, Gladys M. Rodríguez-Maldonado, & Carlos Cabrera-Bonet. Puerto Rico CoNCRA; Universidad de Puerto Rico, Recinto de Ciencias Médicas. **(044)**



# 44<sup>th</sup> Annual Research and Education Forum

## Opening Plenary Session

Amphitheater 1 - School of Medicine  
3<sup>rd</sup> floor Dr. Guillermo Arbona Building

**Wednesday, March 13, 2024**

9:00 am



### **What's New and What's Next with the All of Us Research Program and the REDCap Consortium**

Paul Harris, PhD  
Vice President for Research Informatics  
Associate Director, Vanderbilt Institute for Clinical and Translational Science  
Professor, Department of Biomedical Informatics, Biostatistics, and  
Biomedical Engineering  
Vanderbilt University Medical Center

#### **Biosketch**

Dr. Paul Harris, is professor of biomedical informatics, biostatistics, and biomedical engineering with extensive experience working in the field of clinical and translational research informatics. Dr. Harris serves as director of the Vanderbilt University Medical Center Office of Research Informatics and is very active in the NIH Clinical and Translational Science Award (CTSA) informatics community. He serves as Principal Investigator for the NIH All of Us Program Data and Research Center housed at Vanderbilt University Medical Center. He also serves as Principal Investigator for the NIH/NCATS Recruitment Innovation Center.

#### **Conference Summary**

Dr. Harris will delve into the latest advancements and future directions of the All of Us Research Program, focusing on the expanded opportunities for researcher access. This is especially relevant and significant for the UPR Medical Sciences Campus as it has received an award for the 2023-2024 All of Us Data Training and Engagement for Academic Libraries Program. Additionally, Dr. Harris will provide an insightful overview of the REDCap Consortium, which began as a collaboration between Vanderbilt University Medical Center and the UPR Medical Sciences Campus, highlighting its evolution from its inception as a collaborative project to its current status as a pivotal resource in research data management. Attendees will understand how these initiatives are shaping the landscape of health sciences research and data management and how the UPR Medical Sciences Campus involvement in the All of Us Program and REDCap Consortium plays a crucial role in advancing these fields.



## History of Health Plenary Session

Amphitheater 1 - School of Medicine  
3<sup>rd</sup> floor Dr. Guillermo Arbona Building

Thursday, March 14, 2024

9:00 am

### Medical Ethics and Miraculous Treatments: Medical Professionalization in Puerto Rico at the Beginning of the 20th Century (Conferencia en español)

Mariola Espinosa, PhD  
Associate Professor  
Department of History  
University of Iowa



### Biosketch

Dr. Mariola Espinosa, Associate Professor at the University of Iowa, specializes in the history of medicine and public health in Latin America and the Caribbean. With degrees from Princeton University and the University of North Carolina at Chapel Hill, her work focuses on disease, race, and medicine within the context of empires. Her notable publication, *Epidemic Invasions*, highlights the impact of yellow fever on Cuba-U.S. diplomatic relations. Espinosa's research, supported by the National Endowment for the Humanities, extends to the production of medical-scientific knowledge in imperial peripheries and examines the professionalization of medicine's ties to politics in the Spanish-speaking world.

### Conference Summary

At the end of the 1920s, amid reports on the visit of delegates from Puerto Rico to Washington, D.C. and the anticipated arrival to the island of the new governor, Theodore Roosevelt, Jr., Puerto Rican newspapers began to cover news about doctors achieving miraculous cures. The method of the Spanish doctor, Fernando Asuero, had reached the island and, like Asuero, prominent Puerto Rican doctors claimed they could cure everything from rheumatism to paralysis with a simple touch of the trigeminal nerve. Others argued that practitioners of "Asuerotherapy" were exploiting public credulity and ridiculing the medical profession. This presentation documents how Puerto Rican doctors addressed this controversy by defining the relationship between scientific knowledge, medical ethics, and the practice of medicine. It describes the efforts of the Puerto Rico Medical Association to advocate for and publicly establish its role as the authority on the self-regulation of medicine.



# 44<sup>th</sup> Annual Research and Education Forum

## 62<sup>nd</sup> Bailey K. Ashford Memorial Lecture

Amphitheater 1 - School of Medicine  
3<sup>rd</sup> floor Dr. Guillermo Arbona Building

Thursday, March 14, 2024

11:00 am



### Impact of Vector-Derived Factors on Parasite Establishment and Determinants of Vector Infection and Transmission

Jesús G. Valenzuela, PhD  
Vector Molecular Biology Section  
Laboratory of Malaria and Vector Research NIAID, NIH

#### Biosketch

Dr. Jesús G. Valenzuela has revolutionized the field of vector-borne diseases through his pioneering research, notably in understanding the molecular dialogues between blood-feeding insects, pathogens, and human hosts. With a Ph.D. in Biochemistry from the University of Arizona, Valenzuela's illustrious career at the National Institute of Allergy and Infectious Diseases includes his appointment as Deputy Chief of the Laboratory of Malaria and Vector Research. His seminal work includes identifying salivary proteins from sand flies that mitigate *Leishmania* parasite survival, revealing critical parasite-vector interactions, and discovering a novel parasite developmental stage. Dr. Valenzuela's research has led to potential anti-*Leishmania* vaccines and novel epidemiological markers for vector exposure. His work is widely recognized and substantially impacts global health. Valenzuela's dedication to science extends beyond research, as evidenced in his roles as a plenary speaker at prestigious international conferences and his recognition with awards such as the NIH Director's Award, highlighting his contributions to medical entomology and public health.

#### Conference Summary

Dr. Valenzuela's presentation will address questions related to the molecular interactions between blood feeding insects and human skin, and between blood feeding insects and the pathogen they transmit. It will discuss how a *Leishmania* parasite takes advantage of some blood components when inside the sand fly gut and how these interactions result in a more infectious parasite. This research has also led to the discovery of a new parasite stage. The presentation will address studies of the components present in saliva of blood feeding insects and how these molecules affect human skin immune response and promote pathogen establishment. It will also present Dr. Valenzuela's efforts to move basic research findings to translational research activities, including human clinical research and field studies.



## School of Dental Medicine Plenary Session

Amphitheater 1 - School of Medicine  
3<sup>rd</sup> floor Dr. Guillermo Arbona Building

Friday, March 15, 2024

9:00 am



### Strategies to Stabilize Dentine-bonded Interfaces: From Bench to Clinic

Salvatore Sauro, PhD  
Professor  
Department of Dentistry  
Faculty of Health Sciences  
CEU-Cardenal Herrera University  
Valencia, Spain

#### Biosketch

Dr. Salvatore Sauro is a distinguished professor in dental biomaterials and minimally invasive dentistry, with roles across several prestigious institutions worldwide, including CEU-Cardenal Herrera University, King's College London, and universities in Moscow, Naples, Bari, and Hong Kong. With a PhD from King's College London, his career spans over 15 years in dental biomaterials and minimally invasive dentistry research. He has also held the position of president-elect of the Dental Materials Group at the International Association of Dental Research and serves on the editorial boards of several journals.

#### Conference Summary

Modern, simplified, single-step dental adhesives have seen significant improvements in the last decade, yet they still face challenges like post-operative sensitivity, bond strength reduction, degradation, and biocompatibility issues. The hybrid layer's (HL) degradation occurs mainly through enzymatic degradation of collagen fibrils and resin leaching, facilitated by trapped unbound water. Proteases like matrix metalloproteinases and cysteine cathepsins can degrade the collagen matrix, while hydrolysis can destabilize the resin-dentine interface. To preserve the HL, strategies such as removing unbound water and inhibiting enzymatic activity are advocated. Additionally, the therapeutic use of bioglass powders in air-abrasion procedures can interact with dental tissues, promoting remineralization and improving resin-dentine bond durability. The lecture addresses how to merge *in vitro* and *in vivo* findings to enhance the longevity of resin-dentine bonds and prevent secondary caries in adhesive restorations.



# 44<sup>th</sup> Annual Research and Education Forum

## Posters Sessions

Conrado F. Asenjo Library, 4<sup>th</sup> floor

Wednesday, March 13, 2024

### 1<sup>st</sup> Poster Session

11:30 am to 1:00 pm



- 045** **La emigración del país: ¿A quiénes Puerto Rico está perdiendo?** Abner U. Flores-Siaca, Melissa López-Rosa, & Luz León-López. Programa de Demografía, Escuela Graduada de Salud Pública, Recinto de Ciencias Médicas, Universidad de Puerto Rico.
- 046** **Enrichment Analyses of Genes Harboring Rare de novo Variants in ADHD.** Adriana Pérez Negrón, Luis Farhat, Thomas Fernández, & Emily Olfson. University of Puerto Rico Medical Sciences Campus; Yale University; Universidade de São Paulo.
- 047** **Use of recombinant human bone morphogenetic protein-2 after anterior cervical corpectomy and fusion for the treatment of vertebral osteomyelitis.** Adriana S. Vázquez Medina, Gisela Murray Ortiz, Samuel Estronza Ojeda, Aixa de Jesús Espinosa, & Emil Pastrana Ramírez. University of Puerto Rico, Medical Sciences Campus.
- 048** ***Fasciola hepatica* recombinant FABP-Fh15, downregulates inflammatory cytokines while promoting survival in a mouse septic shock model.** Albersy Armina-Rodriguez, Carlimar Ocasio-Malavé, Bianca Valdés-Fernández, Abiel Roche-Lima, Kelvin Carrasquillo-Carrión, Loyda B. Méndez-Torres, & Ana M. Espino. University of Puerto Rico Medical Sciences Campus; Universidad Ana G. Méndez – Carolina.
- 049** **Prevalence of Psoas minor muscle using cadaveric specimens in the Caribbean population.** Alejandro Dueño, Gabriela Torres, & Nivia L. Pérez-Acevedo. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico, Mayagüez Campus; University of Puerto Rico, Medical Sciences Campus.
- 050** **Factors related to the use of emergency medical services and its effect on reperfusion procedures and in-hospital outcomes among heart attack patients.** Alexandra M. Conde Toro, Ruth E. Ríos Motta, Heriberto A. Marín Centeno, Carmen E. Albizu García, Rafael A. Martínez Torres, & Enid J. García Rivera. University of Puerto Rico, Medical Sciences Campus.
- 051** **Disparities in cervical cancer among LHS+ women: A primer for medical students.** Alexandra M. Conde Toro, Andrea C. Vélez Figueroa, Diego E. Collazo Irizarry, Alicia Báez Cruz, Edwin J. Montalvo Rivera, Marcel Grau Rodríguez, Edymarie Vivaldi Marrero, Pamela Rodríguez Vega, Alejandra C. Báez Rivera, Ana I. Calderón Alonso, Kaitlyn Pommells, Álvaro Pérez, & John Paul Sánchez. Universidad Central del Caribe School of Medicine; University of New Mexico.



- 052 Characterization of the Patient Population in the Padre Venard Student-Run Free Clinic in San Juan, Puerto Rico.** Alondra Soto-González, Gabriel Camareno Soto, Coral Castro Olmo, Bak-nin Choi Reina, Eduardo Pérez Delgado, & Pedro Rodríguez. Universidad Central del Caribe School of Medicine, Bayamón, Puerto Rico
- 053 Polysaccharide peptide overexpress the HIV-1 restrictive factor PKR and upregulates immune boosting components in Jurkat T-cells.** Alondra Bermejo Sanfeliz, Glamaris Rosario Sanfiorenzo, Angelisa Franceschini, Nawal M. Boukli, & Eduardo Alvarez Rivera. Universidad Central del Caribe, School of Medicine, Bayamón, Puerto Rico; Universidad de Puerto Rico, Bayamón, Puerto Rico.
- 054 Sources of Caregivers' Discomfort or Annoyance When Facing Diagnosis and Treatment of Type 1 Diabetes in their Hispanic Adolescent Offspring.** Amanda S. Varona-Negrón, Eduardo Cumba-Avilés, Marleana M. Rolón-Sanfeliz, Mónica C. Nieves-Molina, & María I. Jiménez-Chafey. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.
- 055 The role of Tip60, a histone acetyltransferase, on alcohol-induced seizure susceptibility in .** Ana S. Emmanuelli Micheli, Natalia M. Jiménez Vizcarrondo, Anaís S. Mercado-Rosario, Susana V. Itriago Freitas, Christian Del Valle-Colón, Alfredo Ghezzi Grau. University of Puerto Rico, Río Piedras Campus.
- 056 Unusual Reaction to *Candida albicans* Antigen in the Treatment of Common Warts.** Andrea B. Lastra-Annexy, Alma M. Cruz, & Gabriel Arias. University of Puerto Rico, Medical Sciences Campus; Universidad Central del Caribe.
- 057 Perinatal Mental Health and Coping Mechanisms during the COVID-19 Pandemic in Puerto Rico.** Annelisse Torres-Urquía, Polaris González-Barrios, Veronique Rosado, Jahleel Torres, Isel Figueroa, & Karen Martínez-González. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus.
- 058 Perfil sociodemográfico de la población de 60 años o más en Puerto Rico: 2018-2022.** Arianna E. Bou Ramos, Ana Luisa Dávila. Programa de Demografía, Escuela Graduada de Salud Pública.
- 059 Severe Crunch-like Tractional Retinal Detachment in a Type 1 Diabetes Mellitus Patient After 4 Months of Insulin Pump Use: A Case Report.** Armando J. Ruiz-Justiz, Adriana S. Vázquez-Medina, Alejandro J. Ruiz-Justiz, & Raúl Pérez. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico at Ponce.
- 060 ArsM Confers Resistance to Arsenic Induced Toxicity in E.coli.** Bryan D. Pagán Santiago, Brett Sather, Gus Desouza, Garret Gill, Marguerite L. Balley, Ethan Hasenoehrl, & Brian Bothner. University of Puerto Rico at Arecibo; Montana State University.
- 061 Academic Urology Endowments and Leadership Roles are Disproportionately Held by Male Urologists.** Camille A. Vélez, Emily C. Hacker, Rory Grant, Lindsay A. Hampson. Universidad Central del Caribe; University of California, San Francisco, California

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- 062** **Hispanic Caregivers' Opinions About Currently Inaccessible Resources They Need for Meeting 1 Diabetes Care Goals in their Adolescent Offspring.** Carlos J. Ríos-Miranda, Eduardo Cumba-Avilés, Marleana M. Rolón-Sanfeliz, & María I. Jiménez-Chafey. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.
- 063** **Association Between Body Weight and Liver Size in a Puerto Rican Pediatric Population Sample.** Claudia Ramírez, Camille Vélez, Gabriel Camareno, Ariana Alvarado, Bárbara L. Riestra-Candelaria, Wilma Rodríguez-Mojica, Loida A. González-Rodríguez. Universidad Central del Caribe; University of Puerto Rico School of Medicine.
- 064** **Innovations in Clínicas Padre Venard's Approach to Community Health in Old San Juan.** Coral Castro-Olmo, Alondra Soto González, & Gabriel Camareno Soto. Escuela de Medicina, Universidad Central del Caribe.
- 065** **Intermittent Cocaine Self-Administration and Passive Infusions Increase Subthreshold Activity in Midbrain Dopaminergic Neurons.** Cristhian G. Calo-Guadalupe, Keven Laboy Juárez, Karl Y. Bosque-Cordero, Joseph Capella Muñiz, Omaris Vélez Acevedo, Carlos A. Jiménez-Rivera. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus; University of Illinois at Chicago.
- 066** **Neurothekeoma: Case report of a 17-year-old female and review of literature.** Humberto Lugo Vicente, & Cristhian G. Negrón Rodríguez. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus.
- 067** **Unlocking Neurogenesis: Exploring the Interplay of Exercise and Hippocampal Metabolism for Enhanced Spatial Memory in Mice.** David Ruiz Bolívar, Alejandra Vázquez Medina, Nicole Rodríguez Trujillo, Patricia Morales Iglesias, Karina Marín Hernández, Danniela Rivera Ortiz, Briana Bello Rivera, Francisco Vizcarrondo Fornaris, & Nataliya Chorna. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico, Medical Sciences Campus.
- 068** **Association of gut bacterial toxins with colorectal neoplasia in Lynch Syndrome patients in Puerto Rico.** Diego Rodríguez-Santiago, Ingrid M. Montes-Rodríguez, Nicole Márquez-Andino, Gabriela Montalvo-Noguera, Sophia Colón-Serrano, Luis R. Llanos, Olga Díaz-Miranda, Hilmaris Centeno-Girona, María González-Pons, Marcia Cruz-Correa. University of Medicine and Health Sciences, St. Kitts & Nevis; University of Puerto Rico-Comprehensive Cancer Center, San Juan, PR; University of Puerto Rico-Medical Sciences Campus, San Juan, PR.
- 069** **Prevalencia de Miedo a Caídas en Adultos Mayores Residentes de San Juan, Puerto Rico.** Ebiel J. Almaguel-Colón, Paola N. Arce-Guzmán, & Nancy Dávila-Ortiz. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Enfermería, Programa de Maestría en Ciencias en Enfermería.
- 070** **Adaptación Cultural y Fiabilidad de la Escala de Prácticas de Sedación de Enfermería.** Elisabet Pérez-Rodríguez, Carmen Mabel Arroyo-Novoa, & Milagros Figueroa-Ramos. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Enfermería.





- 071 A Safety and Feasibility Study of the Oral Live Biotherapeutic MRx0518 with Hypofractionated Preoperative Radiation for Resectable Pancreatic Cancer.** Eric Pérez Pérez, Vincent Bernard, Cullen Taniguchi. University of Puerto Rico Medical Sciences Campus. The University of Texas MD Anderson Cancer Center, Houston, TX.
- 072 Effectiveness of an Educational Intervention for Low Back Pain and Behavioral Changes in Physical Activity in Oral Health Students and Professors.** Estefanía Sandoval González, Arnaldo N Santana Rodríguez, Irving J Torres Rosado, Karisol Chévere Rivera. University of Puerto Rico, Medical Sciences Campus, San Juan, Puerto Rico; Albizu University, San Juan, Puerto Rico.
- 073 Characterization of insulin-like growth factor system components in echinoderms during intestinal regeneration.** Evelyn J. Avilés-Ríos, M. Gross-García, J. E. García-Arrarás. Universidad de Puerto Rico, Recinto de Río Piedras, San Juan, Puerto Rico.
- 074 Gantzer Muscle Variation of the Flexor Pollicis Longus: An Anatomical Study in Hispanic-Caribbean Specimens.** Gabriella Torres-Irizarry, Julián Navarro-Pagán, & Natalia Valentín-Carro. University of Puerto Rico, Medical Sciences Campus, Department of Anatomy and Neurobiology.
- 075 Conocimientos y Prácticas de Autocuidado del Pie Diabético en el Adulto con Diabetes Mellitus Tipo 2.** Glorimar Ramos-Mont, Jamie Miranda-Cabrera, & Nancy Dávila-Ortiz. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Enfermería.
- 076 Assessing Fetal-Type Circle of Willis in Puerto Rican Cadavers.** Héctor L. Figueroa Monsanto, Jaime A. Arroyo Aviles, & Wilson Veras. San Juan Bautista School of Medicine.
- 077 Levels of Vitamin D in Chronic Spinal Cord Injury Veterans residing in Puerto Rico.** Luzimar Conaway Mediavilla, Isabel C. Falcón Asencio, Ámbar M. Marrero Sierra, Raúl A. Nazario Martínez. VA Caribbean Health Care System, San Juan PR; University of Puerto Rico, Río Piedras Campus; University of Puerto Rico, Medical Sciences Campus; San Juan Bautista School of Medicine.
- 078 Uncommon Find: An Unusual 10 cm Bezold's Abscess Involving Dural and Mastoid Erosion.** Jerry Cruz-Rodríguez, Ana L. Melero-Pardo, Isabel Castellanos-Castillo, Camila S. Ríos-de Choudens, Miguel A. Rivera. School of Medicine, Universidad Central del Caribe, Bayamón, PR; University of Puerto Rico School of Medicine, San Juan, PR.
- 079 Efficiency of a Capstone Course Research Experience in Fomenting Undergraduate Research Skills: A Quantitative Analysis.** Isaías Justinianes & Elizabeth Dvorsky. University of Puerto Rico, Río Piedras Campus, Natural Sciences Interdisciplinary Studies Program.
- 080 La depresión en la población mayor de 78 años en Puerto Rico, Proyecto PREHCO (2022-2023).** Jaelmarie Arroyo Acosta, Alberto García Gurrucharri, Lina Reyes Mateo, Ana Luisa Dávila Román. Escuela de Graduada de Salud Pública, Recinto de Ciencias Médicas, Universidad de Puerto Rico.



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- 081 Comparing assessments of heritability using 2D and 3D morphometric data from the macaque vertebral column.** Jeziel J. Negrón, Catalina I. Villamil. University of Puerto Rico, Bayamón Campus; School of Chiropractic, Universidad Central del Caribe.
- 082 Machine Learning as a Tool to Identify Warfarin Sensitivity in a Puerto Rican Cohort.** Jorge E. Martínez-Jiménez, Frances L. Heredia, Abiel Roche-Lima, & Jorge Duconge. University of Puerto Rico, Medical Sciences Campus.
- 083 A Rare Occurrence: Bilateral Tibial Tubercle Avulsion Fractures in a Pediatric Hispanic Athlete – Case Analysis and Literature Exploration.** Marcantonio V. Pinci, Lucas De Virgilio-Salgado, Alexandra Claudio Marcano, Joseph Salem-Hernández, Daniel L. Castañón-Pereira, Humberto Guzmán. University of Puerto Rico, Medical Sciences Campus, San Juan, Puerto Rico; San Juan Bautista School of Medicine, Caguas, Puerto Rico.
- 084 The Role of Calcium Signaling in Pericytes: Exploring an Underlying Cellular Mechanism in Pulmonary Arterial Hypertension.** Julyann López Ayes, Nicholas Philip, Larissa Shimoda, Vinicio de Jesús Pérez. Johns Hopkins University School of Medicine Baltimore MD, USA; San Juan Bautista School of Medicine Caguas, PR; Department of Pulmonary and Critical Care Medicine, Stanford Medicine Palo Alto, CA, USA.



Thursday, March 13, 2024

2<sup>nd</sup> Poster Session  
11:30 am to 1:00 pm

- 085 Association between history of polycystic ovary syndrome and cardiovascular health among young females in Puerto Rico.** Krisyalie Morales Rivera, Claudia P. Amaya, Andrea López-Cepero, Milagros C. Rosal, Cynthia M. Pérez. University of Puerto Rico, Medical Sciences Campus, San Juan, PR; Rollins School of Public Health, Emory University, Atlanta, GA; University of Massachusetts Chan Medical School, Worcester, MA.
- 086 Dysbiosis in female rats after Spinal Cord Injury and the effects of a broad spectrum antibiotic in the microbiome.** Luis H. Pagán, Samuel Ocasio, María E. Santiago, José M. Santiago, Iris Salgado, Osmarie Martínez, Mauricio Cáceres, Aranza Torrado, Filipa Godoy, & Jorge D. Miranda. University of Puerto Rico, Medical Sciences Campus, Department of Physiology; University of Puerto Rico, Carolina Campus, Carolina; Universidad Central del Caribe, School of Medicine; National Institutes of Health, National Human Genome Research Institute, Bethesda, MD
- 087 Potential brain-specific activation of the transcription factor Nrf2/CncC by the probiotic *Lactiplantibacillus plantarum* in *Drosophila* larvae.** Luna Segarra Alonzo, Cecilia Fadhel, Angelie Núñez Colón, & Imilce A. Rodríguez-Fernández. College of Natural Sciences, Department of Biology, University of Puerto Rico, Río Piedras Campus.
- 088 Anatomical Study of the Vertebral Artery Transposition and its Clinical Relevance.** Manuel García, Simona Seriola, Luciano Leonel, María Peris-Celda. Department of Neurosurgery, Mayo Clinic, Rochester - MN; Rhoton Neurosurgery and Otolaryngology Surgical Anatomy Program; Alfred Uihlein Professorship Program; Department of Otolaryngology Head and Neck Surgery, Mayo Clinic, Rochester – MN.
- 089 Taller anual de Recinto Pa' la Calle: Transformación de conocimiento sobre sinhogarismo y uso de drogas.** Marcos I. Roche Miranda, Cristina Fernández Hernández, Miguel Girod Hoffman, Victoria A. Finkel-Aguilar, Emili Rosado Rodríguez, Melany López Maldonado. Universidad de Puerto Rico, Recinto de Ciencias Médicas.
- 090 Anatomical Variations of the Trajectory of the Recurrent Branch of the Median Nerve.** Mariana Travieso Difffoot, Jaime Arroyo Avilés, & Wilson Veras Tavárez. San Juan Bautista School of Medicine.
- 091 Trastuzumab-conjugated liposomes loaded with siRNA against LCN2 for Inflammatory Breast Cancer.** Marienid Flores-Colón, Pablo E. Vivas-Rivera, & Pablo E. Vivas-Mejía. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Comprehensive Cancer Center, University of Puerto Rico, Río Piedras Campus.

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- 092** **Hispanic Caregivers' Experiences About their Most Helpful Resources to Improve Care and Management of Type 1 Diabetes in their Adolescent Offspring.** Marleana M. Rolón-Sanfeliz, Eduardo Cumba-Avilés, Alexandra Mojica-Román, & María I. Jiménez-Chafey. University of Puerto Rico, Río Piedras Campus.
- 093** **The Median Artery: Bilateral Persistence in a Cadaveric Specimen - A Case Report.** Max Schreiber, Valeria Pauneto, Wilson Veras. San Juan Bautista School of Medicine, Department of Anatomy.
- 094** **Synthesis of Andrographolide Derivatives as Potential Treatment for Prostate Cancer.** Mitzzy J. Santiago-Rosario, Cornelis Vlaar, Magaly Martínez-Ferrer. University of Puerto Rico School of Pharmacy; University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico Molecular Sciences Research Center.
- 095** **Food insecurity is associated with insomnia-related symptoms in young adults in Puerto Rico.** Natalia Vázquez-Colón, Claudia Amaya, Andrea López-Cepero, Milagros C. Rosal, Cynthia M. Pérez. University of Puerto Rico, Medical Sciences Campus, San Juan, Puerto Rico; UMass Chan Medical School, Worcester, MA; Rollins School of Public Health, Emory University, Atlanta, GA.
- 096** **Solubilization and drug delivery tracking of Andrographolide in prostate cancer cells using CBQDs and AuAgCBQDs as drug delivery platforms.** Nataniel Medina Berríos, Sebastián C. Díaz-Vélez, Rafael A. Villanueva-Nogueras, Alondra Veloz-Bonilla, Alejandro O. Rivera-Torres, Magaly Martínez-Ferrer, Brad R. Weiner, & Gerardo Morell. University of Puerto Rico-Río Piedras Campus; University of Puerto Rico Comprehensive Cancer Center; School of Pharmacy, University of Puerto Rico; University of Puerto Rico-Río Piedras Campus; Molecular Sciences Research Center, University of Puerto Rico.
- 097** **Lymph Node-Tumor Proximity as a Determinant of Anti-Cancer T-cell Immune Response.** Neian Contreras Alvarado, Meghan O'Melia, Pinji Lei, & Timothy Padera. University of Puerto Rico School of Medicine; Massachusetts General Hospital, Boston, Massachusetts
- 098** **IMPROVING BREASTFEEDING RATES IN THE NEONATAL INTENSIVE CARE UNIT: A QI PROJECT.** Nhadyris A Machín-De Jesús, Paola I. Ortiz-Glas, Dialymar Rodríguez-Báez, Natalia N. Infante-Cabrera, Jorge N Díaz-Prado, Lourdes García-Tormos, & Lourdes García-Fragoso. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico School of Medicine, Department of Pediatrics, Neonatology section.
- 099** **Morphological and Molecular Effects of *Notch* Gene Inhibition During Intestinal Regeneration.** Pamela Esteva Camacho, Julienn Torres Rodríguez, José García Arrarás. PR-LSAMP Program. RISE Program. University of Puerto Rico, Río Piedras Campus.
- 100** **Assessment of virulence factors in *H. pylori* positive gastrointestinal metaplasia samples.** Paola Jacome Justiniano, Lucia Mattei, Ingrid Montes-Rodríguez, María González-Pons, & Marcia Cruz-Correa. Ponce Health Sciences University, Ponce, Puerto Rico; University of Puerto Rico-Comprehensive Cancer Center, San Juan, Puerto Rico; University of Puerto Rico-Medical Sciences Campus, San Juan, PR.



- 101** **Hispanic Women Living with Children in Puerto Rico During the COVID-19 Pandemic: Socioeconomic Problems, Life Disruption, and Health Challenges.** Paola M. Rivera-Arroyo, Eduardo Cumba-Avilés, & Demivette Gómez-Rivera. University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.
- 102** **Evaluating Ergosterol Peroxide's anti-metastatic effects in an *In vivo* Triple Negative Breast Cancer Model.** Paola S. Rivera-Fuentes, Luz V. Arroyo-Cruz, Israel Almodóvar, Taotao Ling, Fátima Rivas, & Michelle M. Martínez Montemayor. University of Puerto Rico, Río Piedras Campus; Universidad Central del Caribe-School of Medicine; University of Puerto Rico, Mayagüez Campus; Louisiana State University, Baton Rouge, LA.
- 103** **SCAMP3 Mediated EGFR Endocytosis Regulates STAT3.** Patricia N. Meléndez-Ojeda, Beatriz Morales-Cabán, Ivette J. Suárez-Arroyo. Universidad Central del Caribe School of Medicine
- 104** **Neonatal Complications Associated with Maternal Mental Stress in the NICU.** Paula C. Román Villamil, Roberto Y. Rodríguez Lozada, Gabriela M. Vera Santiago, Yelenis Díaz Vicioso, Darielie L. Rivero Rolón, Andrea C. Morales Dávila, Mariela V. Pérez Otero, Polaris González-Barrio, José Martínez, Cynthia García Coll, Zayhara Reyes Bou, Inés García García, & Lourdes García Frago. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus, and Bayamón Campus.
- 105** **Reclutamiento de Estudiantes de Escuelas Públicas en la Escuela de Medicina de la UPR; Rol de los Clubes de Medicina y Otras Profesiones de la Salud.** Pedro M. Bonilla-Rullán, Ghalib Figueroa-Quiñones, Byron K. Olivo-Natal, Yeslian M. Lozada-Vázquez, Ileana M. Ayala-Fontánez, América Facundo-Rosado. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Medicina y Escuela Graduada de Salud Pública; Recinto de Arecibo, Departamento de Biología; Recinto de Mayagüez, Departamento de Biología; Recinto de Cayey, Departamento de Ciencias Sociales.
- 106** **IMPROVING IMMUNIZATIONS COMPLIANCE IN THE NEONATAL INTENSIVE CARE UNIT: A QI PROJECT.** Raisa Z. Calderín Ríos & Lourdes García-Fragoso. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico School of Medicine, Department of Pediatrics, Neonatology section.
- 107** **Essential Voice Tremor Progression to Parkinson's Disease: A Systematic Review.** Raúl Ramos-Sánchez, Ana Negrón-García, Alejandro Marrero-González, Tanner Diemer, Shaun A. Nguyen. University of Puerto Rico School of Medicine, San Juan, PR; San Juan Bautista School of Medicine, Caguas, PR; Medical University of South Carolina, Charleston, SC.
- 108** **Discovery and Development of Anxiolytic Agents from Tropical Marine Macroalgae.** Ricardo M. Cruz Sánchez, Paola N. Guzmán Torres, Gabriela M. Ramírez Renta, Geraldine M. Ortiz Sosa, Aniel J. Rivera Arzola, Janiennid Alicea Tirado, David A. Gragirenes Delgado, Lymelsie Aponte Ramos, Adrián E. González Santiago, Grayce E. Dyer Levin, Eduardo Caro Díaz, Ricardo Chiesa. University of Puerto Rico, Cayey Campus; UPR – Medical Sciences Campus.

# 44<sup>th</sup> Annual Research and Education Forum

- 109 Association between Perceived Discrimination and Depressive Symptoms among Young Adults in Puerto Rico.** Stephanie Cameron-Maldonado, Claudia P. Amaya-Ardilla, Andrea López-Cepero, Milagros C. Rosal, Cynthia M. Pérez-Cardona. University of Puerto Rico, Medical Sciences Campus, San Juan, PR; Rollins School of Public Health, Emory University, Atlanta, GA; UMass Chan Medical School, Worcester, MA.
- 110 Glymphatic pathway in *Xenopus tropicalis*.** Valeria S. Rivera-Alvarado, Stephen Viviano, Engin Deniz. Universidad Central del Caribe School of Medicine, Bayamón, PR; Yale School of Medicine, New Haven, CT.
- 111 Revolutionizing Cell Culture: The Effects of Alternative Media Supplementation on SH-SY5Y Cell Proliferation and Viability.** Valeria Santiago-Padilla, & Zeynep Bengisu Kaya. University of Puerto Rico, School of Medicine, San Juan, PR.; Department of Neuroscience, Mayo Clinic, Jacksonville, FL, USA.
- 112 Targeting matrix metalloproteinase-3 (MMP-3) in high-grade serous ovarian cancer.** Víctor G. Reyes Burgos, Marienid Flores Colón, Eliud Hernández-O'Farrill, Luis E. Vázquez Colón, Pablo E. Vivas Mejía. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Comprehensive Cancer Center; Interamerican University, Arecibo Campus.
- 113 Changes in Skeletal Muscle Metabolic Profile and Physiology after Spinal Cord Injury and Tamoxifen Treatment.** Viviana González, Samuel Ocasio, Nataliya Chorna, Iris K. Salgado, María E. Santiago, José M. Santiago, Aranza I. Torrado, Jennifer M. Colón, Walter Frontera, Jorge D. Miranda. UPR- Medical Sciences Campus, San Juan, PR; UPR-Carolina Campus; Universidad Central del Caribe; NIH, NHGRI, Bethesda, USA.
- 114 Sex Differences in BDNF Expression in the Extinction of Morphine Place Preference.** Wilma V. Richiez-Mateo, Mario Lloret-Torres, Pedro Bonilla-Rullán, Helena Arraiza-Truust, Fabiana Rosado-Rodríguez, Jennifer L. Barreto-Estrada. University of Puerto Rico-Bayamón Campus; University of Puerto Rico-Medical Sciences Campus; University of Puerto Rico-Río Piedras Campus.
- 115 Epidemiology of Rheumatoid Arthritis during the COVID-19 pandemic in Puerto Rico: Estimates from a government health insurance claims database.** Yolianne Ortega-Lampón, Ramón Scharbaai-Vázquez, Carlos T. Ojeda, Elizabeth Torres-Lebrón, Francisco J. López-Font, Alanis Morales-Torres, Rebeca Nieves, Yamil Claudio-Román, & Andrea Rosado-Albacarys. San Juan Bautista School of Medicine, Caguas, Puerto Rico.
- 116 TWIST1 and Mutants Binding Analysis by SELEX-seq.** Alexandra Torres-Bracero, Edgar A. Maldonado-Ortiz, Carmen L. Cadilla-Vázquez. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus.
- 117 Left neck soft tissue swelling and pain in a 4-year-old girl secondary to esophageal perforation: a case report.** Adriana C. Candelaria, & Yanira Morales. University of Puerto Rico, Medical Sciences Campus.



- 118 SPONTANEOUS INTRACEREBRAL HEMORRHAGE IN THE SETTING OF SEVERE THROMBOCYTOPENIA.** Alexandra Méndez Alzamora, Grecia Arroyo Otero, Moisés García Rosa, & Rosa Díaz Torres.
- 119 Enfoque Multidisciplinario en un Caso del Programa de Ortodoncia RCM-UPR.** Antonella S. Rodríguez Calderón, Grace Pagán Collazo, Mairim Soto-Ortiz. AEGD-NYU Langone-PR; Universidad de Puerto Rico- Recinto de Ciencias Médicas, Escuela de Medicina Dental.
- 120 Elevated blood pressure and obesity among pediatric population in Puerto Rico after COVID-19 pandemic lockdown.** Xamayta Negroni Balasquide, Lourdes García Fragoso, Joao Cantellops Cueli, & Arelis Seijo Lebrón. University of Puerto Rico, Medical Sciences Campus, Pediatric Residency Department & Pediatric Nephrology Department.
- 121 Spinal Cord Dysfunction After Surfing: A Case of Surfers Myelopathy.** Claudia Muns & Manolín Gómez. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 122 Perioperative Considerations in Adults with Coarctation of the Aorta Undergoing Digital Subtraction Angiography for an Intracranial Artery Aneurysm.** Dennys Rivera Pérez, Jean F. López Ruiz, Adrián B. Muñiz Sarriera, Génesis A. Sánchez Sánchez, Héctor M. Torres Pérez, & María J. Crespo. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 123 Peeling Back the Layers: An Imaging-Based Case Report on Two Examples of Acute Aortic Syndrome.** Gabriel N. Frattallone Lladó, Christopher S. Chapman Peña, & Ivonne Ojeda Boscana. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 124 ATYPICAL PRESENTATION OF NODULAR LYMPHOCYTE-PREDOMINANT HODGKIN LYMPHOMA (NLPHL).** Grecia Arroyo, Alexandra Calderón, Leslie Soto, Moisés García. University of Puerto Rico, Medical Sciences Campus.



# 44<sup>th</sup> Annual Research and Education Forum

Friday, March 15, 2024

3<sup>rd</sup> Poster SESSION  
11:30 am to 1:00 pm



- 125 Combination of Wide-Awake Local Anesthetic No Tourniquet (WALANT) and Sedation Proves Effective for Hand Surgery in Five Pediatric Patients.** Jean F. López Ruiz, Adrián B. Muñiz Sarriera, José M. Ramírez Franco, Génesis A. Sánchez Sánchez, Héctor M. Torres Pérez, Grisel M. Pedraza, Christian A. Foy Parrilla, María J. Crespo. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 126 HIV/AIDS AS MIMICKER OF IBD.** Luis C. Rivera Martínez, Christian Rodríguez Nazario, & Ana García Puebla. University of Puerto Rico, Medical Sciences Campus.
- 127 INVASIVE TRICHOSPORINOSIS IN THE IMMUNOCOMPROMISED.** Ninoshka Caballero, Grecia Arroyo, Luis Rivera, Andrea Carlo, & Inés Esquilín. University of Puerto Rico Medical Sciences Campus; University of Texas, Houston.
- 128 Aneurysmal Bone Cyst (ABC) of the Humerus: Navigating Diagnosis and Intervention.** Omar Concepción, Claudia M. Muns, & Ivonne Ojeda. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 129 The crosstalk between the tumor microbiome and epigenomic changes in penile cancer.** Jorge Viera-Vera, Yarelis M. Roque-Reyes, Daniel Santiago-Negrón, María Sánchez-Vázquez, Yakshi Ortiz Maldonado, Gabriel Borges-Vélez, Jasmine Figueroa-Díaz, Carlos A. Rivera-López, Niki Zacharias Millward, María J. Marcos-Martínez, Filipa Godoy-Vitorino, Antonio Puras-Báez, Julie Dutil, Josué Pérez-Santiago, & Magaly Martínez-Ferrer. University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico, Medical Sciences Campus, School of Medicine; The University of Texas MD Anderson Cancer Center, Houston TX; University of Puerto Rico, Medical Sciences Campus, School of Pharmacy.
- 130 Synapse Development and Composition after Acute and Chronic Exposure to Alcohol.** Mariam Vázquez & Bruno Marie. Institute of Neurobiology, University of Puerto Rico, Medical Sciences Campus; Department of Anatomy and Neurobiology, University of Puerto Rico, Medical Sciences Campus; Molecular Sciences Research Center, University of Puerto Rico.
- 131 Deciphering the Impact of Running Exercises on the Gut-Brain Axis: Microbiota, Tryptophan Metabolism, and Brain Health.** Alejandra Vázquez Medina, Nicole Rodríguez Trujillo, David Ruiz Bolívar, Patricia Morales Iglesias, Karina Marín Hernández, Danniela Rivera Ortiz, Briana Bello Rivera, Francisco Vizcarrondo Fornarís, Filipa Godoy Vitorino, & Nataliya Chorna. University of Puerto Rico, Medical Sciences Campus, School of Medicine; University of Puerto Rico, Río Piedras Campus.





- 132 Molecular profile of gastric cancer in Hispanics living in Puerto Rico.** Ingrid M. Montes- , Hilmaris Centeno-Girona, Ana Cristina del Pino, Noridza Rivera, Marcia Cruz-Correa. University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico School of Medicine, San Juan, PR.
- 133 Vaccine hesitancy among persons with a previous SARS-CoV2 infection in Puerto Rico: findings of the COVID-19 Assessment Study (PR-COAS).** Bárbara A. Ramos-Sanfiorenzo, María Larriuz-Serrano, Princess Pacheco, Juan González-Sánchez, Enid J. García-Rivera, & Cynthia Pérez-Cardona. University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico, School of Medicine; University of Puerto Rico, Graduate School of Public Health.
- 134 The effects of exposure to dibutyl phthalate and manganese on locomotion in the freshwater prawn *Macrobrachium rosenberji*.** Isabel S. Castro-Rivera, Ana I. Ortiz-Colón, Nilsa M. Rivera-Chévez, & María A. Sosa-Lloréns. University of Puerto Rico, Río Piedras Campus; University of Puerto Rico, Medical Sciences Campus, School of Medicine; School of Medicine, Universidad Central del Caribe.
- 135 Self-reported discrimination in medical settings among Hispanic/Latino gastrointestinal cancer survivors.** Karina Torres-Mojica, Mariela Bournigal-Feliciano, Marievelisse Soto-Salgado, Hilmaris Centeno-Girona, Rocío Avilés-Mercado, Juan González-Mayoral, Sofía F. Contreras-Fernández, Lorena González-Sepúlveda, Victoria Williams, Arnethea L. Sutton, Katherine Tossas, Robert Winn, & Marcia Cruz-Correa. University of Puerto Rico Comprehensive Cancer Center, San Juan, PR; University of Puerto Rico, Medical Sciences Campus; Virginia Commonwealth University, Virginia, US; Massey Cancer Center, Virginia, US.
- 136 Análisis Taxonómico y Funcional de Actinobacterias asociadas a termiteros: Implicaciones biotecnológicas y ambientales.** Leobaldo J. Luna-Alvear, Alejandra S. Morales-Cruz, Luis A. Montalvo-Pagan, & Matías J. Cafaro. University of Puerto Rico-Mayagüez.
- 137 Comparison of quality of life among underserved patients living with and without Long COVID in Puerto Rico: findings of the COVID-19 Assessment Study (PR-COAS).** María Larriuz-Serrano, Bárbara A. Ramos-Sanfiorenzo, Princess Pacheco, Juan González-Sánchez, Cynthia Pérez-Cardona, & Enid J. García-Rivera. University of Puerto Rico, Medical Sciences Campus, School of Medicine; University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico, Medical Sciences Campus, Graduate School of Public Health.
- 138 Enhancing Health Literacy in Dermatopathology Reports: The Impact of AI Tools, such as ChatGPT, on Patient Understanding and Education of Health Information.** Matthew J. Davis, Mario G. Lozano-Franco, Alvaro J. Ramos-Rodríguez, David Grand, Carsten R. Hamann, & Aravindhan Sriharan. Dartmouth-Hitchcock Medical Center, Lebanon, NH, US; HonorHealth Dermatology Residency, Scottsdale, AZ, USA; Contact Dermatitis Institute, Phoenix, AZ, USA; Universidad Central Del Caribe School of Medicine, Bayamón, PR.



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- 139 EVALUACIÓN DE SERVICIOS DE REHABILITACIÓN EN PERSONAS (21 A 64 AÑOS) CON ACCIDENTE CEREBROVASCULAR EN PUERTO RICO.** Mayra I. Quiles Miranda. Universidad de Puerto Rico, Recinto de Ciencias Médicas
- 140 Molecular profiling of colorectal cancer in a genetically admixed Hispanic population.** Hilmaris Centeno-Girona, Ingrid M. Montes-Rodríguez, Sophia Colón-Serrano, Noridza Rivera, & Marcia Cruz-Correa. University of Puerto Rico-Comprehensive Cancer Center; University of Puerto Rico-Medical Sciences Campus.
- 141 Predicción de CASIS mediante Inteligencia Artificial.** José Serra-Taylor & Solimar Pérez-Torres. Universidad de Puerto Rico, Recinto de Río Piedras, Departamento de Consejería para el Desarrollo Estudiantil (DCODE)
- 142 Implementation of a Parental Infant Massage Project in A Neonatal Intensive Care Unit in Puerto Rico: A Quality Improvement Initiative.** Carla Maisonet Santiago, Inés García García, Lourdes García Tormos, & Lourdes García Fragoso. University of Puerto Rico, Medical Sciences Campus, School of Medicine.
- 143 Yao Syndrome: Unraveling the Enigma of a Complex Autoinflammatory Disease with Autoimmune Inflammatory Disease Mimicry.** Ileana Rivera Burgos, Salvador Vilá, & Luis M. Vilá. University of Puerto Rico Medical Sciences Campus, School of Medicine.
- 144 Concurrent Dermatomyositis and Systemic Lupus Erythematosus: A Rare Association of Autoimmune Rheumatic Disorders.** Lorena López, Grissel Ríos, & Luis M. Vilá. University of Puerto Rico Medical Sciences Campus, School of Medicine.
- 145 Granulomatosis with Polyangiitis Presenting as Severe Gingival Inflammation and Bleeding.** Luis F. Álvarez-Pérez, Ariana González-Meléndez, Luis M. Vilá. University of Puerto Rico Medical Sciences Campus, School of Medicine.
- 146 Condiciones de salud de las personas de edad mayor en Puerto Rico 2022-2023: Envejecimiento en Puerto Rico seguimiento del Proyecto PREHCO.** Ana Luisa Dávila, Alberto García, Lina Reyes, & Michael Crowe. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Salud Pública; Universidad de Alabama en Birmingham.
- 147 Proyecto AHORA: Educating Agencies and Communities in Puerto Rico in Mental Health First Aid.** Carol Y. Irizarry-Robles & Ángel Y. Pascual Avilés. University of Puerto Rico, Río Piedras Campus.
- 148 Development of Personalized Fitting Cervical Collars.** Ricardo Nieves Santiago, Valeria Reyes Valentín, Joaricel Rivera Ramos, Sofía Pacheco Díaz, Angel González-Santana, Gabriel López-Medrano, Camillo Cangani, Walter Frontera, Emma Fernández-Repollet, & Abraham Schwartz. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus; Ponce Health Sciences University.



- 149 Prevalence and factors associated with Long COVID in Puerto Rico: results from the Puerto Rico COVID-19 Assessment Study (PR-COAS).** Enid J. García-Rivera, Bárbara A. Ramos-Sanfiorenzo, María Larriuz-Serrano, Princess Pacheco, Juan González-Sánchez, & Cynthia Pérez-Cardona. University of Puerto Rico, Medical Sciences Campus, School of Medicine; University of Puerto Rico Comprehensive Cancer Center; University of Puerto Rico, Medical Sciences Campus, Graduate School of Public Health.
- 150 Strengthening Diversity in Data Science Education for Hispanic Health Disparities Research.** Joshua Meléndez-Berríos, Dylan A. Cedrés Rivera, Eduardo Figueroa-Santiago, Frances Heredia-Negrón, & Abiel Roche-Lima. University of Puerto Rico, Medical Sciences Campus; University of Puerto Rico, Río Piedras Campus.
- 151 Validación y adaptación de un cuestionario de clima de humor en el trabajo para la población puertorriqueña.** Julián Laboy-Rodríguez, Patricia Santiago-Vega, Kimberly Santana-Echavarría, Adriana Torres-Córdova. Universidad de Puerto Rico, Recinto de Río Piedras, Facultad de Ciencias Sociales, Departamento de Psicología.
- 152 Determination of the presence of bacterial contamination in the water of the Isla Verde Marine Reserve.** Laura I. Santiago-Pérez, Karla M. Nadal-Nevárez, Daniela M. Rodríguez-Rodríguez, Emmanuel J. Rosario-Marrero, & Alexander Montalvo-Berríos. University of Puerto Rico in Bayamón.
- 153 A cyclic diterpenoid restored pro-survival pathways implicated in learning and memory in an *ex vivo* model of Gulf War Illness.** Sorangely Vázquez Alicia, Félix G. Rivera-Moctezuma, José Luis Marrero Valentín, Dinely Pérez, Pedro A. Ferchmin, & Nadezhda Sabeva. Universidad Central del Caribe; University of Puerto Rico, School of Medicine; Georgia Institute of Technology, Atlanta, GA; Neuroprotection for Life, Carmel, IN.
- 154 Análisis de la cobertura mediática sobre los adultos mayores al inicio de la pandemia de COVID-19 en Puerto Rico.** Yiselly M. Vázquez Guzmán. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela Graduada de Salud Pública.
- 155 Chronic ethanol exposure during distinct developmental stages differentially affects adult behavior in *Drosophila*.** Julieann M. Colón-Sarriera, Nicolás L. Fuenzalida-Urbe, Christian D. Del Valle-Colón, Anaís S. Mercado-Rosario, Imilce A. Rodríguez-Fernández, Alfredo Ghezzi. University of Puerto Rico, Río Piedras Campus.
- 156 Estrés Académico, Resiliencia y Bienestar de los Estudiantes del Programa Graduado de Enfermería con Especialidad en Anestesia.** Sháriellys Y. García González & Carmen I. Díaz Colón. Universidad de Puerto Rico, Recinto de Ciencias Médicas, Escuela de Enfermería.



# 44<sup>th</sup> Annual Research and Education Forum

## **Acknowledgment and Gratitude to Our Esteemed Evaluators**

We extend our deepest gratitude to the distinguished professors and researchers from the University of Puerto Rico (UPR) Medical Sciences Campus, other UPR campuses, private universities in Puerto Rico, and academic institutions from around the globe for their invaluable collaboration as evaluators of the 162 abstracts received for the 44th Annual Research and Education Forum.

Your expertise, dedication, and comprehensive insights have been instrumental in maintaining this forum's highest academic and scientific excellence standards. The diversity of your academic backgrounds and the depth of your knowledge have contributed significantly to a rich, multidisciplinary discourse essential for fostering innovation and advancing research in our communities and beyond.

This collaboration underscores the unity and strength of our academic and scientific communities and highlights your crucial role in shaping the future of research and education. Your contributions have made a significant impact, ensuring the success of this prestigious event.

We are profoundly thankful for your commitment and look forward to the continued advancements your efforts will inspire.

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Dr. Ivonne Angleró Vega (retired)  
Dr. Kristian Pamias Velázquez  
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Dr. Hilton Franqui Rivera

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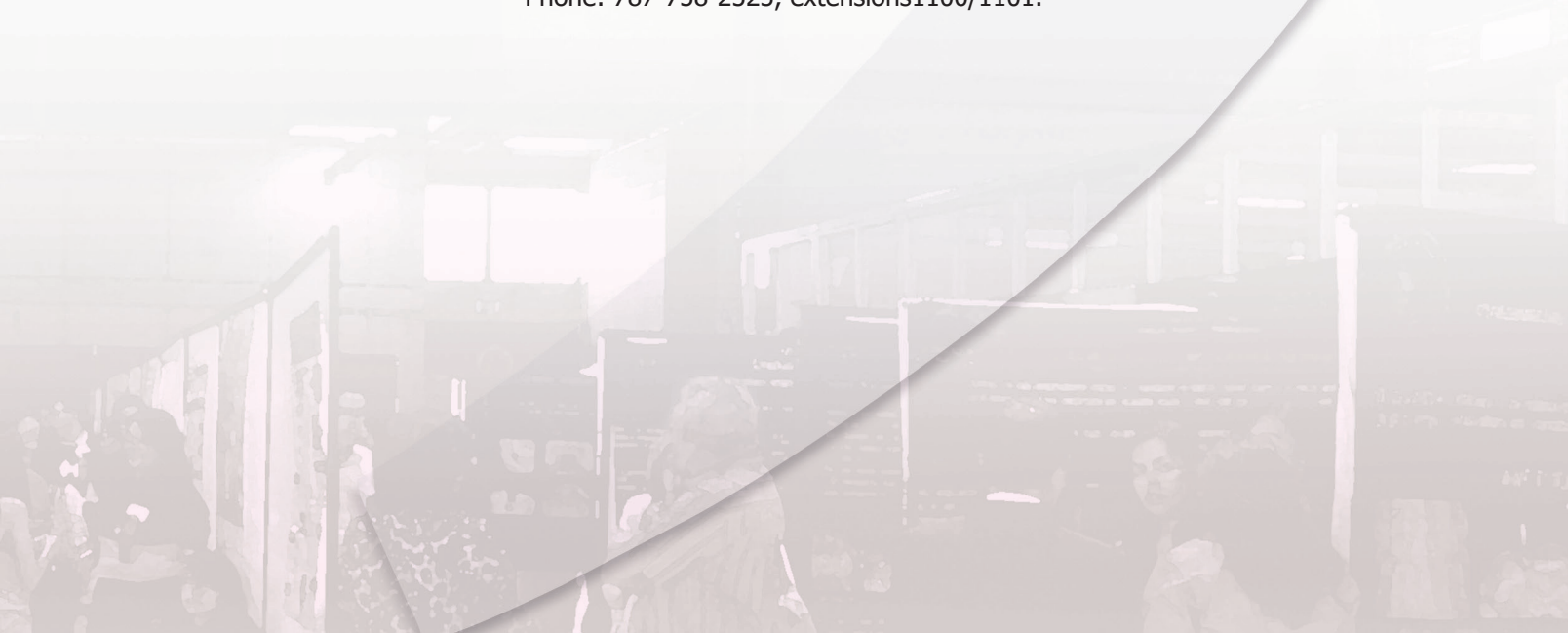
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