Institute of Interdisciplinary Research
UNIVERSITY OF PUERTO RICO AT CAYEY

Our Mission
To advance undergraduate research, community service and academic creation at UPR Cayey by supporting interdisciplinary, regional and applied research projects.

Our Goals
To advance and facilitate interdisciplinary research.

To produce knowledge relevant to Puerto Rico and to the UPR-C service region.

To provide undergraduate research experiences that lead to student success.

To provide a supportive environment for researchers.

To disseminate the results of our research projects.

To learn more about our successful model of research in a Primary Undergraduate Institution see:


August 17, 2023

THE INSTITUTE IN NUMBERS 2004-2023

206 RESEARCH PROJECTS
102 RESEARCHERS SUPPORTED
1,700 STUDENTS ENGAGED IN RESEARCH
135 DIFFERENT COURSES DEVELOPED
79% APPLY TO GRADUATE SCHOOL & 91% OF THOSE REPORT BEING ADMITTED
214 PUBLICATIONS
$22,114,146 EXTERNAL FUNDS SECURED
40 PROFESSIONAL DEVELOPMENT ACTIVITIES OFFERED ANNUALLY
1,700 AFFILIATES
MELLON INITIATIVE

“Invigorating Scholarly Communities at the Institute Interdisciplinary Research”

The Andrew W. Mellon Foundation 2023-2026

Dr. Isar P. Godreau, Contact PI isar.godreau@upr.edu

Goal:
The goal is to support projects under a common theme that is specific to UPR-Cayey, yet broad enough to speak to the strengths, lines of inquiry and curricular innovations of its diverse faculty.

Resources

CENSUS INFORMATION CENTER
Part of the US Census Bureau, the CIC Program helps to disseminate Census information to communities. It is also an analysis, education and service center.

INTERDISCIPLINARY SEMINARS, CONFERENCES, WORKSHOPS AND TRAININGS
An ongoing program of seminars, conferences and workshops provides opportunity for faculty and students to share their research, invite collaborators as speakers, receive training in research methodologies and responsible conduct in research, among other topics.

SUPPORT FOR FACULTY IN RESEARCH
The Institute provides research and mentorship training, proposal development training, Startup Funds and seed money for new faculty.

STUDENTS AND FACULTY RESEARCH SYMPOSIA
The Institute coordinates the annual UPR Cayey Student and Faculty Research Symposia.

INTERDISCIPLINARY COURSES
Three innovative master syllabi provide education opportunities to UPR students: The INTD 4116: Interdisciplinary Research Experiences, where students work as Research Assistants and obtain academic credits; the INTD 4996: Topics in Interdisciplinary Studies, and the INTD 3027: Culture, Health, and Environment Topics. The Institute welcomes researchers from PR and the Diaspora as Adjunct Professors to conduct research in Puerto Rico through the INTD 4116 course. See The Antonia Pantoja Research Mentoring Program at: http://bit.ly/antonia-pantoja-program.

TECHNICAL RESEARCH REPORTS: “CUADERNOS DEL INSTITUTO”
These on-line publications provide an accessible, edited venue to disseminate research results and obtain feedback for future peer-reviewed publications. Both faculty and students publish their research. The Cuadernos are available in both hard copy and web portal versions.

PRE AND POST AWARD SUPPORT
We provide pre award and post award support to researchers in collaboration with the UPR-C Sponsored Programs and Research Office. Through various externally funded projects, the III has been a leader in research infrastructure development and enhancement at the UPR Cayey.

WEB PAGE
Provides news, resources, results, researchers profiles and other information of benefit for the research community.

RESEARCH LABS
One computer lab with research software, telecommunications equipment and support technician.

AFFILIATES
Our network of affiliates has members with whom we share research activities and opportunities

RESEARCH SUPPORT PERSONNEL
Our team is comprised by a director (Prof. Vionex Marti), two researchers (Dr. Isar Godreau/Anthropology and Dr. Mariluz Franco/Psychology), a demographer and four administrative assistants.

PARTNERS AND COLLABORATORS
Some of our collaborators are:
¿Cómo salimos del desastre? Comunidades, cambio climático y colonialismo
Investigadora: Dra. Rosa E. Ficek Torres (Instituto de Investigaciones Interdisciplinarias)

Center for the Advancement of Wearable Technologies (CAWT): Engineered (Bio) Interfaces, Energy Harvesting/Storage and Data Analytics of Health and Diagnostic Monitoring
Investigador: Dr. Juan M. López Encarnación (Matemática-Física)

Collective Care: Responses to Natural and Human-Made Disasters in Puerto Rico
Investigadora: Dra. Rosa E. Ficek Torres (Instituto de Investigaciones Interdisciplinarias)

Discovery and Development and Anxiolytic Agents from Tropical Marine Macroalgae
Investigador: Dr. Ricardo Chiesa (Biología)

Empoderamiento legal: Acceso y vulnerabilidades frente a la injusticia
Investigadoras: Dra. Isar P. Godreau (Instituto de Investigaciones Interdisciplinarias), Ariadna Godreau

Ética de cuido y cascada de desastres: Trabajadores de la salud en Puerto Rico después de María
Investigadora: Dra. Adriana Garriga

Función de H2S en su superóxido de dismutase y su implicación en la formación de fibrillas
Investigadora: Dra. Ruth Pietri (Química)

Hispanic and Latin student experiences with POGIL activities in English and Spanish in General Chemistry at a Hispanic-Serving Institution
Investigadora: Dra. Joan Roque (Química)

Historias de los procesos de recuperación en comunidades en Puerto Rico luego de los desastres naturales
Investigadora: Dra. Patricia Noboa

Improvements on low-density parity-check (LDPC) codes and high-performance neuromorphic engineering for communication systems
Investigadores: Dr. Moisés Delgado, Dr. Danilo Barrionuevo (Matemática-Física)

Nanoscale Multiferrioc Properties for High Performance Neuromorphic Computing
Investigador: Dr. Danilo Barrionuevo (Matemática-Física)

Proyectos patrocinados por los Institutos Nacionales de Salud (NIH)

The University of Puerto Rico at Cayey METAS+: Maintaining, Engaging, and Tracking Alumni in Science and Health Research
Investigadores: Dra. Isar P. Godreau, Dr. José Caraballo Cueto, Dr. Raymond Tremblay (Instituto de Investigaciones Interdisciplinarias)

The U-RISE Program at UPR Cayey: Undergraduate Research Initiative for Student Enhancement
Investigadores: Dr. Juan Santana (Química), Dr. Robert Ross (Biología), Dra. Joan Roque (Química), Dra. Laura Vicente

NASA EPSCoR: Design of Novel Polymeric Membranes and Responsives Molecules for CO2 Removal and Water Reclamation in Future Long-Term Missions: A Computational and Experimental Approach
Investigador: Dr. Juan M. López Encarnación
NASA MIRO: Puerto Rico Space Partnership for Research, Innovation and Training to Engage the Next Generation of Explorers (PR-SPRInT) | Subaward-Computational and Experimental Approach
Investigador: Dr. Juan M. López Encarnación (Matemática-Física)

Negotiating Dementia Care in Rural Networks of Care in Puerto Rico
Investigadora: Dra. Patria C. López de Victoria (Inglés)

Partnership to Increase Representation in Energy Research in Puerto Rico (PIRES-PR)
Investigador: Dr. Juan Santana (Química), Dr. Lisandro Cunci (Universidad Ana G. Méndez)

Proyecto de creación teatral y comunitaria etnoescenología, antropología y dramaturgia espectacular
Investigador: Dr. Jorge Luis Torres (Humanidades)

PRSTRT-Studies on the Molecular Structure and Stability of Water Nanobubbles
Investigador: Dr. Juan M. López Encarnación (Matemática-Física)

Relevancia de algunas tradiciones de música de cuerdas en África para el estudio de la historia de las experiencias musicales caribeñas
Investigador: Dr. Errol L. Montes Pizarro (Matemática-Física)

To Enhance Pathways for Students in the UPR Cayey Chemistry Program to enter STEM Masters and Doctoral Graduate Programs
Investigador: Dr. Wilfredo Resto (Química)

Acompañamiento psicosocial como herramienta de aprendizaje y transformación social

Archivo del Huracán María: construyendo memoria colectiva con métodos participativos
Investigadora: Dra. Rosa E. Ficek Torres (Instituto de Investigaciones Interdisciplinarias)

Documenting Puerto Rican English
Investigadora: Dra. Sally J. Delgado (Inglés)

El Derecho en la Literatura: representaciones y resistencias
Investigadora: Dra. Janette Becerra (Estudios Hispánicos)

Envejecimiento y Sociedad
Investigadora: Dra. Ruth Mercado (CEDE)

Letra y performance boricua actual
Investigador: Dr. Alejandro Carpio (Estudios Hispánicos)

Visualizando la afrodignidad: examinando los libros de texto de Estudios Sociales en la escuela elemental para la equidad racial
Investigadoras: Dra. Isar P. Godreau, Dra. Mariluz Franco Ortiz (Instituto de Investigaciones Interdisciplinarias)

Writing to Heal: Creative writing techniques to promote student resilience, empowerment, and agency
Dra. Thayra Reyes (Inglés)