



Office of the Vice President for Research and Technology



RESEARCH CENTERS AND FACILITIES



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Río Piedras Campus

[Caribbean Studies Institute](#)

The *Institute for Caribbean Studies* was established in 1959 through a combined grant from the University of Puerto Rico and the Ford Foundation to carry out educational and research activities. The main objectives of the Caribbean Studies Institute are to promote, in Puerto Rico, a better understanding of the Caribbean region and to coordinate teaching and research at the University of Puerto Rico concerning the peoples and countries that make up said region. The Institute also aims to promote cooperation between research centers and associations in the Caribbean and to disseminate the research that has been done by means of presentations and publications.

[Center for Business Research and Academic Initiatives](#)

The Center for Business Research and Academic Initiatives is a division of the School of Business Administration at UPR Río Piedras. Its main purpose is to promote research in theoretical and applied business administration, thereby creating knowledge and enhancing the Island's commercial and industrial capability. The Center also develops self-sufficient collaborative academic projects between the community and the college that enhance educational processes.

[Center for Social Research](#)

The Center for *Social Research* was established in 1945 with the aim of contributing to the knowledge of the social structure, conditions, and problems of Puerto Rico and the Caribbean and Latin America. The Center seeks to develop new data and relevant approaches toward public policy formulation and its application as well as improve university teaching in the social sciences. The results of the studies it has sponsored have been published in numerous books and articles. Faculty researchers from the center have been able to broaden their perspective by including other colleagues and distinguish visitor professors.

[Economic Research Unit](#)

The objectives of the *Economic Research Unit* are to stimulate research in the field of economics and to promote its publication. It has computer facilities. Through the lecture program, the Unit annually invites a group of distinguished international economists.

[Educational Research Center](#)

The College of Education Educational Research Center was created in 1977 with the purpose of stimulating, developing, sponsoring, and conducting research in the field of education. Within

the College, the Center fosters a spirit of inquiry and stimulates studies, evaluations, experiments, and innovative projects in education in Puerto Rico.

Hispanic Studies Center Federico Onís

This is a research center on the Spanish language and on peninsular, Latin American, and Antillean literature and folklore. Various sections comprise this seminar room: a library with a collection of reference books; a bibliography of Hispanic authors and subjects; and an archive which includes articles, brochures, manuscripts, slides, recordings, and phonographic records of both classical and popular music related to Hispanic studies. The library and archives are open to students and to everyone who is interested in researching Hispanic subjects.

Historical Research Center

This Center was founded in 1946 and houses an important repository of microfilmed documents about Puerto Rican history. The Center also has original collections such as that of Isabel Gutiérrez del Arroyo, Gilberto Concepción de Gracia, and Roberto Sanchez Vilellas as well as documentary transcripts and other important research resources. The Center generates and develops research projects to be published in books, or as articles and documentary collections in its own journal, *Op. Cit.*, published since 1985.

Instituto de Estudios Hostosianos

The main purpose of the institute is to endorse the intellectual legacy of Eugenio Maria de Hostos by means of research and analysis of his extensive work. The Institute also organizes symposiums, conferences and publications.

Natural Sciences Research Centers

Crest-Center for Applied Tropical Ecology and Conservation

The Center for Applied Tropical Ecology and Conservation (CATEC) of the University of Puerto Rico is a catalyst in the development of education and research in ecology. Their mission is to provide training to students (at undergraduate and graduate level) and postdoctoral researchers; conduct state-of-the-art research in conservation biology and environmental issues; improve the infrastructure of research facilities and; contribute relevant data to policy and conservation management of the island's natural resources. CATEC activities focus on student training and faculty development that enables participants to address research questions related to complex environmental and conservation issues facing the Neotropics.

[Center for Nanoscale Materials](#)

The Center for Advanced Nanoscale Materials (CANM) is an interdisciplinary and multi-campus research and education University Research Center (URC) partnership project between NASA and the University of Puerto Rico. It will bring together thirteen researchers from three different campuses and four different departments to work on research projects relevant to NASA in collaboration with NASA Glenn Research Center (GRC), NASA Ames Research Center (ARC), and the Jet Propulsion Laboratory (JPL), in areas that correspond primarily to the Exploration Systems Mission Directorate, and secondarily to the Aeronautics Research Mission Directorate.

[Institute for Tropical Ecosystems Studies](#)

The Institute for Tropical Ecosystem Studies (ITES) operates as a unit within the Faculty of Natural Sciences of the UPR-Río Piedras campus. The ITES conducts research relevant to the management of natural ecosystems and atmospheric chemistry; establishes and maintains long-term experimental and reference studies of ecosystems; applies knowledge gained to develop mechanisms for the restoration of degraded tropical ecosystems; and increases public awareness of the importance of natural ecosystems to human welfare through undergraduate and graduate education.

[Material Characterization Center](#)

Located at the University of Puerto Rico, Río Piedras Campus, The Materials Characterization Center offers specialized services, on a fee basis, in the area of Nuclear Magnetic Resonance, Mass Spectrometry, Surface Microscopy and Spectroscopy and X-Ray Diffraction and Co-focal Microscopy to clients from industry, government and the academic community.

["Observatorio de Estudios Relacionados con la Información" \(OERI\)](#)

OERI is a joint effort of faculty and research students from the Graduate School of Information Technology at UPR Río Piedras. Participation of visit professors is included according to the nature of the project or initiatives being developed.

[Psychological Research Institute](#)

The Psychological Research Institute is a unit under the College of Social Sciences at the UPR Río Piedras Campus. The institute is conceived as an interdisciplinary research and development organization. Its mission comprehends the transformation and contribution to social justice, and the development of psychology and related disciplines. The main goal is to generate and

disseminate knowledge related to mental health and other adverse conditions that hinders integral health and wellbeing.

[University of Puerto Rico Architecture and Construction Archives](#)

The AACUPR is a historical archive of the XXth century and further, specialized in Puerto Rican architectural work. It includes more than 80 collections of the most prominent architects, engineers, contractors, photographers and landscapers' architects among others. The collection consists of more than 3,000,000 documents containing architectural drawings, photos, written documents and artifacts.

[Bio-Mentes at UPR](#)

The Amgen Bio-Minds Program (Biotechnology Mentorship Initiative to Develop Scientists Program) is an initiative funded by the Amgen Foundation in collaboration with the University of Puerto Rico. Its goal is to promote undergraduate research in the areas of science and engineering that support the advancement of biotechnology.

Mayagüez Campus

[Agricultural Experimental Station](#)

Established in 1910 by the Sugar Producers Association the Agricultural Experiment Station was ceded to the Government of Puerto Rico in 1913 and transferred to the University of Puerto Rico by legislative action in 1933. Its main objective has been to conduct research, to develop technology and to improve agriculture and the quality of life in rural areas. The Station, a component of the College of Agricultural Sciences, has two main research centers, one at Mayagüez and the other at Río Piedras and six agricultural substations located in Adjuntas, Corozal, Juana Díaz, Gurabo, Isabela, and Lajas. The Station's laboratories, research library, farms, and other facilities are available to graduate students for thesis research. The Station is an active member of the Southern Association of Experimental Stations. This Association serves as a regional link to the U.S. Department of Agriculture, the U.S. Congress, the National U.S. Association of State Universities and Land Grant Colleges (NASULGC).

[Center for Applied Social Research](#)

CISA, established in 1991, is an integral part of the Department of Social Sciences. CISA promotes and coordinates practical applications of faculty expertise to the analysis and mitigation of problems arising from or inextricably linked to social attitudes and behavior. CISA's specific objectives aim to provide strong research training and mentoring to undergraduate students, to engage faculty and students in interdisciplinary research, to develop collaborative

research projects with other research centers, programs and institutions, to enhance the professional development of researchers and students through participation in a diverse number of seminars, workshops, and conferences, and to increase the number of students pursuing a graduate degree in social sciences. Faculty areas of expertise include Anthropology, History, Political Sciences, Psychology, and Sociology. This expertise is applied in the analysis and mitigation of problems and situations associated with human behavior, perception and social attitudes.

Caribbean Atmospheric Research Center

The Caribbean Atmospheric Research Center at the University of Puerto Rico – Mayagüez is part of the Climate Modeling Group at UPRM sponsored by NASA. Their aim is to offer the most comprehensive weather and climate information for the Caribbean Region, continuously adding new data. The center is dedicated to facilitate comprehensive climatological and weather display, data acquisition and analysis of the Caribbean region.

Caribbean Coral Reef Institute

The Caribbean Coral Reef Institute (CCRI) is a cooperative program between the University of Puerto Rico – Mayagüez (UPRM) and the National Oceanic and Atmospheric Administration. The Institute sponsor's scientific research and monitoring programs that address short and long-term management-driven priorities for the understanding and managing of the coral reef ecosystem of the US Caribbean. These activities address the major threats to coral reefs within an ecosystem context, including human socio-economic dimensions, and enhance our understanding of the biological and physical processes that structure coral reefs and impact the health of the ecosystem. Through its sponsored programs and partnerships, CCRI aims to build research and management capacity in order to fully utilize the scientific expertise of the region in promoting both sustainable ecosystems and the services they provide.

Center for Chemical Sensor Development for Explosives

The Center for Chemical Sensor Development (CCSD) and the Chemical Imaging Center (CIC) are Research, Development, Education and Training centralized facilities that operate as part of the Department of Chemistry of the University of Puerto Rico-Mayagüez (UPRM). At the base of the CCSD structure is our goal of providing our main customers: undergraduate and graduate students with the best education and training so that may become skilled scientists and engineers. Cooperation with the twin Research and Education Center at the Department of Chemistry: the Chemical Imaging Center of UPRM is fostered through collaborative projects in which students and professors from both centers participate. Collaborations with island wide scientists and with national and international colleagues are also sponsored.

Center for Hemispherical Cooperation in Research and Education in Engineering and Applied Sciences

CoHemis is part of the University of Puerto Rico. It is housed in and primarily serves the Mayagüez Campus. It was founded in 1991 at a hemispheric conference-workshop sponsored by the National Science Foundation. It brought together national science and technology organization (ONCyT) delegates from 13 countries of the Americas to discuss ways to increase hemispheric collaborations in science and technology. CoHemis today is the hub of a network of 40 institutions from most countries of the Americas interested in collaborations by such means as joint research faculty, student exchanges, short courses and workshops.

Center for Power Electronics

CPES was established as a US National Science Foundation Engineering Research Center (NSF ERC) in 1998 at the University of Puerto Rico-Mayagüez (UPRM) and other five institutions across the nation. The research vision is to enable dramatic improvements in the performance, reliability, and cost-effectiveness of electric energy processing systems by developing an integrated system approach via integrated power electronics modules (IPEM). The envisioned IPEM solution is based on the integration of new generation of devices, innovative circuits and functions in the form of building blocks with standard functionalities and interfaces to facilitate the integration of these building blocks into application-specific system solutions.

Center for Subsurface Sensing and Imaging Systems

The Center for Subsurface Sensing and Imaging Systems (CenSSIS) seeks to revolutionize the ability to detect and image biomedical and environmental-civil objects or conditions that are underground, underwater, or embedded within cells or inside the human body. The multidisciplinary approach combines expertise in wave physics, sensor engineering, image processing, and inverse scattering with rigorous performance testing to create new sensing system prototypes that are transitioned to our industry partners for further development. An important outcome of this process is the education of students well-trained in these crucial fields for the future of public health and the preservation of the planet's physical resources.

Central New York to Puerto Rico - AGEP (CNYPR-AGEP)

The Central New York to Puerto Rico - Mayagüez AGEP program gives opportunities design for minorities to obtain Ph.D.s in areas where technical breakthroughs are expected-in science, mathematics, and engineering (SME). The CNY-PR alliance proposes the following objectives to achieve its goals: 1) Provide inter-institutional engaging research experiences for undergraduate and graduate students; 2) Review and recommend innovative measures and guidelines for graduate admission criteria; 3) Aggressively recruit and retain excellent minority students to the alliance institutions; 4) Provide multi-year funding package for accepted minority graduate

students; 5) Expand professoriate and mentor training programs to alliance institutions; 6) Develop and implement continuous assessment tools to evaluate the alliance's objectives.

Civil Infrastructure Research Center

The Civil Infrastructure Research Center is funded by FEMA, FHWA, and the Puerto Rico Department of Transportation, and other partners. It also has strengths in the areas of pedestrian safety and urban public transit planning. UPRM also hosts the [Puerto Rico Transportation Technology Transfer Center](#), the local center for FHWA's Local Technical Assistance Program.

University Transportation Research Center, Region II

The Region 2 University Transportation Research Center (UTRC) is one of ten original [University Transportation Centers](#) established in 1987 by the U.S. Congress. These Centers were established with the recognition that transportation plays a key role in the nation's economy and the quality of life of its citizens. University faculty members provide a critical link in resolving our national and regional transportation problems while training the professionals who address our transportation systems and their customers on a daily basis.

Climate Change Studies in the Caribbean (NASA-EPSCOR)

The Climate Change Studies in the Caribbean (NASA-EPSCOR) research program is based on the urgent need in present days to generate a full understanding of regional scale climate processes. The purpose of the work is to develop and implement a comprehensive research program in Caribbean climate dynamics, aimed towards: 1) the development of a research grade existing weather data collection and analysis program for the Caribbean region, and 2) development of atmospheric dynamic mathematical modeling for the region; 3) and the development and establishment of the Joint Institute for Caribbean Climate Studies (JICCS) to be located at the UPR, Mayaguez. JICCS will be dedicated to fostering research on climate and environmental change. Its Caribbean location offers unparalleled opportunities for the development of this crucial field of study. It will be an autonomous and self-sustaining legal entity to conduct and continue Caribbean Climate Studies.

Collaborative Adapting Sensing of the Atmosphere

The Center for Collaborative Adaptive Sensing of the Atmosphere (CASA), seeks to revolutionize the way we detect, monitor and predict atmospheric phenomena by creating a distributed collaborative adaptive sensor network that sample the atmosphere where and when end user needs are greatest. This system has the potential of having a profound impact on the society in terms of lives, property and the economy.

Geological and Environmental Remote Sensing

The Geological and Environmental Remote Sensing Laboratory (GERS Lab) was founded in January 2002 as part of the Department of Geology in the University of Puerto Rico at Mayaguez. Their mission is to promote and facilitate the education and research of the Earth System Science using remote sensing. Current research is mainly focused on environmental monitoring with biogeo-optical properties and digital images and the development of a Geographic Information Systems. The vision is to continue been a prestigious laboratory in remote sensing and Geographic Information Systems of the Caribbean by generating innovative research and producing Earth System scientists well trained in the application of these tools.

High Energy Physics Laboratory

This Laboratory, dedicated to the High Energy Physics, is currently analyzing the data from the FOCUS experiment (E831) carried out at Fermi National Accelerator Laboratory near Chicago. FOCUS studies the photo-production and decay of particles which contain the “charm” quark. The Lab is also participating in the design of another fermilab experiment (BTev) which will study CP violation in the decay of particles containing the “beauty” quark.

The Bio-optical Oceanography Laboratory

The Bio-Optical Oceanography Laboratory at the University of Puerto Rico Mayagüez Campus is an educational project with active teaching and research programs in water optics and satellite remote sensing. Their interdisciplinary studies in coastal and oceanic waters of the Inter-Americas Sea include: remote sensing & bio-optics, aerosols & atmosphere, and mesophotic coral reefs.

MARC Program

The goal of the MARC U-STAR Program at the University of Puerto Rico-Mayaguez Campus (UPRM) is to enhance the training environment for biology and chemistry undergraduate honors students as a way of improving their preparedness for graduate training in biomedical sciences. The University of Puerto Rico at Mayagüez MARC Program, sponsored by the National Institute of General Medical Sciences (NIGMS), has been designed to provide honors students with research related activities and a special science curriculum that will improve their possibilities of being accepted on a Ph.D. or M.D./Ph.D. program and being successful in biomedical research graduate programs. The Program accepts students from the Biology, Chemistry, Industrial Microbiology, and Biotechnology Departments.

Microscopy Center

The microscopy center is provided with an electronic scanning microscope and other facilities for processing biological specimens such as conventional optical microscopy, Normansky (differential interference contrast) fluorescence, phase contrast and conventional/digital microscopy. This center is located at room 026, Biology Department, UPR Mayagüez Campus.

National Oceanic and Atmospheric Administration-Cooperative Remote Sensing Science and Technology Center

The NOAA CREST is a program that delivers high-quality products that can help understand and predict changes in the Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs, using as instrument the most talented students and researchers working together to achieve the goals of the mission.

Partnership for Spatial and Computational Research

The Partnership for Spatial and Computational Research is an important consortium design for undergraduate students. This initiative is a partnership effort with the participation of NASA, a number of U.S. Universities and the industry. Its primary goal consists of the preparation of undergraduate students in the field of Satellite Image Analysis, Remote Sensing and Geographic Information Systems (GIS). The participating students of this innovative program will be trained in the development of tools for data analysis, visualization and image animation. They will have the opportunity to receive a certificate in Remote Sensing in addition to their bachelor's degree.

Program for Research in Computing and Information Sciences and Engineering

The Program for Research in Computing and Information Sciences and Engineering is a project of five research groups [Advanced Data Management (ADM), Automated Information Processing (AIP), Computational Statistics and Data Analysis (CSDA), Parallel and Distributed Computing (PDC) and Human Computer Interfaces (HCI)] that will help with the implementation of the Ph.D. CISE model as an academic program, by adding a significant number of researcher able: to perform frontier research of impact for academia, industry, or society in general, and attract other researchers and students to their specialties; obtain and sustain competitive funding; increase significantly the number of masters and Ph.D women and minority with degrees in CISE; and foster the formation of multidisciplinary research group activities.

Puerto Rico Water Resources and Research Institute

The Puerto Rico Water Resources and Environmental Research Institute is a research facility dedicated to the investigation and development of water resources in Puerto Rico. The Puerto

Rico Water Resources and Environmental Research Institute (PRWRERI) is one of 54 water research centers established throughout the United States and its territories by Act of Congress in 1964 and presently operating under Section 104 of the Water Research and Development Act of 1984 (P.L. 98-242).

Sea Grant College Program

The University of Puerto Rico Sea Grant College Program is an educational program dedicated to the conservation and sustainable use of the ocean and coastal resources of Puerto Rico, the U.S. Virgin Islands and the wider Caribbean area. Their mission is twofold: 1) to conduct scientific research of excellence in the thematic areas of: water quality, fisheries and mariculture, coastal community economic development, and coastal hazards and safety; 2) and to apply our scientific knowledge to a variety of marine and coastal problems and issues that our community of users face every day.

Puerto Rico Seismic Network

PRSN (Puerto Rico Seismic Network) is administered by the Department of Geology. The staff oversees a network of 25 broad and short period seismic stations and 6 tide gauges and weather stations installed in the Puerto Rico region. The main objective of PRSN is to process and analyze local, regional, teleseismic earthquakes. Data are made available to the general public and distributed among scientific and academic communities and emergency management organizations. The PRSN also operates a tsunami warning system monitoring seismic and tsunami events in Puerto Rico the Caribbean and adjoining regions.

Technology Incubator Program

Located in a 22,000 square feet industrial building in La Quinta Industrial Park in Mayaguez, VITEC2 is operated by PRTEC with funds provided by the Puerto Rico Industrial Development Company (PRIDCO). VITEC2 is directed by a Board of Directors of outstanding entrepreneurs, government representatives, academia and venture capitalists. VITEC2 is the Premier Business Accelerator in Puerto Rico, the most experienced incubator in the island, established since January 1999. The project vision is to be a catalyst in the transformation of Puerto Rico's economy by accelerating the creation and transfer of technology in knowledge-intensive industries; and their mission is to stimulate a success environment where scientists, inventors and entrepreneurs can transform their technology-based research findings into successful business ventures.

Tropical Center for Earth & Space Studies

The Tropical Center for Earth and Space Studies (TCESS) from the University of Puerto Rico at Mayaguez is a NASA University Research Center (URC) established in 1995. The TCESS mission is

to conduct research and to train students in areas of interest to NASA strategic enterprises. Our vision is to become a resource to NASA and the nation for high quality relevant research as well as trained professionals. TCESS is a multidisciplinary research center with the participation of faculty and students from the Colleges of Engineering, Arts and Sciences, and Agriculture.

Tsunami Warning and Mitigation Program

The activities carried out by the Puerto Rico Tsunami Warning and Mitigation Program are being sponsored as of 2006 by the NOAA National Tsunami Hazard Mitigation Program. These activities are focused towards: Identification of tsunami hazard and risk; tsunami warning protocol and; emergency management and mitigation activities and; public awareness. For additional information on tsunami warning and mitigation activities in Puerto Rico please visit <http://redsismica.uprm.edu>

Bio-Mentes at UPR

The Amgen Bio-Minds Program (Biotechnology Mentorship Initiative to Develop Scientists Program) is an initiative funded by the Amgen Foundation in collaboration with the University of Puerto Rico. Its goal is to promote undergraduate research in the areas of science and engineering that support the advancement of biotechnology.

Research Training Centers:

Center for Internet Enhanced Teaching

CECI, located at Chardón 217, is an innovative faculty-oriented computer center recently created by Dr. Mario Núñez Molina, professor of Psychology at the University of Puerto Rico at Mayagüez. CECI's main purpose is to aid the Faculty of the Department of Social Sciences in the process of integrating the use of the new information and communication technologies in the teaching of their respective courses. CECI also conducts research evaluating the effects that the Internet and other related technological advances have on the learning process.

Food Safety Learning Institute of the Americas

The main objective of the institute is to provide food safety comprehensive information and education, both in English and Spanish, at any time and in any format by means of an effective collaboration that can make use of the available resources in the industry, the government, educational institutions and international organizations throughout the Americas.

[Industrial Biotechnology Program](#)

The Industrial Biotechnology program started in 1994 as an interdisciplinary initiative at the University of Puerto Rico at Mayaguez. The program's curriculum is characterized by course sequences from science (biology and chemistry), engineering, mathematics, and socio-humanistic complemented by hands-on and practice-based experiences.

[Puerto Rico Strong Motion Program](#)

The Puerto Rico Strong Motion Program (PRSMMP) is a program dedicated to obtain the most reliable and precise strong motion data to mitigate the number of lives and economical losses that will arrive from unavoidable future destructive earthquakes.

[Providing Resources of Major Impact in Science Education](#)

Our program aims to transform the teaching-learning process into a dynamic technologically oriented educational community by pursuing the following objectives: provide the resources that will result in a multidisciplinary approach to teaching science; enrich the scientific content of science programs by facilitating research experiences and exposure to recent advances unfolding in the biological sciences; encourage an active learning environment in which the science knowledge is constructed by the student with a faculty facilitating the process; develop computer literacy in our scholar community by using technology; develop awareness of bioscience options among the student population and information base technology.

Medical Sciences Campus

[Center for Environmental & Toxicological Research](#)

The Center for Environmental Toxicology Research investigates the effects of pollutants in specific areas of environmental concern in Puerto Rico. The Center, headquartered at the UPR Medical Sciences Campus, provides the infrastructure to support interdisciplinary research among 12 scientists and 27 graduate students from various campuses of the UPR system.

[Caribbean Primate Research Center](#)

The Caribbean Primate Research Center (CPRC) conducts multidisciplinary, collaborative studies on the entire life cycle of rhesus monkeys as a biological model for humans. For over 30 years the CPRC has been providing an invaluable service to the national and international scientific

community by providing Indian-origin rhesus macaques with known backgrounds, and of the same genetic pool, for use in studies of numerous diseases that afflict humans.

Cancer Center

The mission of the Puerto Rico Cancer Center (PRCC) is to promote basic sciences, clinical, and epidemiological research in cancer prevention and control in Puerto Rico. In addition, the Center supports programs in cancer information and education for the public, patients, and health professionals. The Center also seeks to be the basis for a comprehensive cancer center of excellence in cancer prevention, research, and service for Puerto Rico and the Caribbean, given its primary concern with cancer in Hispanics and other minority populations.

Research Centers in Minority Institutions

The goal of the RCMI Program for 2006-2011 is to continue the development of competitive research on the Medical Sciences Campus by focusing on the development of a strong infrastructure for conducting multidisciplinary collaborative research studies through the establishment of clusters of excellence in health disparities affecting the Puerto Rican population. The RCMI program proposes to: (1) develop infrastructure and provide support services to facilitate the conduct of multidisciplinary collaborative research in health disparities; (2) target specific areas of research and provide initial funding for developing these research activities; (3) promote the professional development of junior our research faculty working on this area.

Clinical Research Center

The goal of the RCRII Program at the Medical Sciences Campus is to develop the necessary infrastructure and support services to conduct clinical research activities and to stimulate the clinical research potential of our faculty. The following specific aims have been identified: 1) To create a self-supported infrastructure for clinical research including appropriate physical facilities, as well as administrative and research support services; 2) To enhance the research potential of current and new clinical research faculty and to encourage collaborative research between clinical and basic investigators; and 3) to target research programs or areas for development.

Demographic Research Center

The main goal of this program is to standardize faculty research efforts of under the Demographic Graduate Program. This initiative will allow the enhancement and dissemination of socio-demographic research and results.

Center for Hispanic Youth Violence Prevention

The Center for Hispanic Youth Violence Prevention (CHYVP) is one of ten Academic Centers of Excellence of the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. The

Center integrates academic institutions and community organizations to develop youth violence prevention strategies in Puerto Rico.

Center for information Architecture in Research

The Center for Information Architecture in Research (CIAR) at the Medical Sciences Campus of the University of Puerto Rico is funded by a RCMI grant (G12RR03051) from the National Center for Research Resources, National Institutes of Health. CIAR's main goal is to enhance collaboration between researchers at the Medical Sciences Campus (MSC), University of Puerto Rico, and researchers in other institutions within and outside Puerto Rico through the application of computing and telecommunications technologies. Four specific aims have been identified: 1) to facilitate access and stimulate the use of high performance computing and biotechnology research resources available through the Internet; 2) to create or enhance web sites, news groups or list servers for interdisciplinary research initiatives at the MSC that collaborate actively with investigators at the regional, national or international level; 3) to create portals to research resources available at the MSC or online through the Web, and 4) to update the telecommunications infrastructure in some areas of the MSC.

Behavioral Sciences Research Institute

The Behavioral Sciences Research Institute is a scientific research program adjoined to the Dean of Academic Affairs of the University of Puerto Rico's Medical Sciences Campus. Its main objectives are: 1) to carry out studies of mental disorders, behavioral problems and their associated features in the adult, child and adolescent population of Puerto Rico; 2) to translate, adapt to the Puerto Rican culture, and test the psychometric properties of the various diagnostic instruments used in the research performed; 3) to develop methodologies and theoretical models which are applicable to research with Hispanic and other minority populations within the United States; 4) to promote collaborative research with other Research Centers and researchers within and outside of the island, including European Research Centers; and 5) to provide the training of students in basic research skills, both within and outside our University, particularly among Latin America. Various mechanisms are used to fund trainees, but the most frequent mechanism used is the minority supplement awards sponsored by NIH.

Puerto Rico Health Services Research Institute

The Puerto Rico Health Services Research Institute (PRHSRI) develops and enhances the capacity to conduct health services research in the Department of Health Services Administration (DHSA) and the School of Public Health (SPH) at the University of Puerto Rico Medical Sciences Campus. The PRHSRI is funded by the Agency for Healthcare Research and Quality (AHRQ) as a Minority Research Infrastructure Support Program (M-RISP). The Puerto Rico Health Services Research Institute (PRHSRI) was created to develop research-based knowledge founded on the reality of the Puerto Rican and U.S. healthcare systems that will assist decision-makers in evaluating health policy options. The long-term objective is to extend the short term pilot projects into more comprehensive studies comparing the health of Puerto Ricans in the island with Puerto Ricans' health in the U.S.

Puerto Rico Comprehensive Center for the Study of HIV

The Puerto Rico Comprehensive Center for HIV Disparities (PR-CCHD) will establish the operational and research infrastructure for a Comprehensive Center for the study of Health Disparities in the area of HIV/AIDS. This is a unique and important initiative because for the first time, the three accredited Medical Schools in Puerto Rico (UPR School of Medicine, UCC School of Medicine, and Ponce School of Medicine) will collaborate as partners in the pursuit of a common goal.

Research Institute for Global Health Promotion and Health Education

The main goal of the institute is to establish and develop research collaboration with different countries that will enable innovative research approaches in health related areas.

Institute of Neurobiology

The Institute of Neurobiology of the University of Puerto Rico Medical Sciences Campus is an interdepartmental, interdisciplinary research facility. It is devoted to and equipped for the study of excitable cells and the neurobiology systems formed by them. In addition, the laboratory provides access to the rich fauna and flora which inhabit the littoral waters and the rain forests of Puerto Rico. All laboratory facilities are open to cellular neurobiologists and to research workers including physiologists, anatomists, biochemists, toxicologists, zoologists, and others, both from the University of Puerto Rico and visiting scientists from universities on the mainland and foreign countries.

Health Sciences History Institute

The Health Sciences History Institute is a joint effort between the School of Medical Sciences, the School of Public Health and the Deanship of Academic Affairs, at the UPR Medical Sciences Campus. The institute develops historic research related to health sciences. Initially oriented to Puerto Rican history it has the goal to eventually encompass the Caribbean region and the Americas.

Women and Health Research Center

The Research Component of the National Center of Excellence in Women's Health at the University of Puerto Rico Medical Sciences Campus (UPR-MS) was created to identify and establish priorities in basic and clinical research as well as to develop a research agenda that will address women's health issues relevant to our Hispanic population. To achieve these goals we focused on the following objectives: 1) assessment of ongoing research efforts in women's health at the Medical Sciences Campus; 2) development of a directory of faculty who are conducting research related to women's health; 3) identification of key health needs of Puerto Rican's women and its incorporation in a research agenda; 4) establishment of a research program that stimulate collaborations and interdisciplinary approaches; and 5) dissemination of research-related information.

Minority Biomedical Research Support - Support of Continuous Research Excellence (MBRS SCORE)

The Minority Biomedical Research Support - Support of Continuous Research Excellence (MBRS-SCORE) was funded under the umbrella of the Minority Opportunities in Research Division (MORE) in the National Institute of General Medical Sciences (NIGMS) of the National Institutes of Health (NIH). The long-range objective of the MBRS SCORE Program at the University of Puerto Rico Medical Sciences Campus (UPR-MSC) is to develop productive health-related research programs among faculty, contribute to a supportive campus research environment, and stimulate under-represented minority students to enter careers in biomedical research. MBRS SCORE Program funding provides faculty an opportunity to generate sufficient data to present research results at national and international research forums, publish in peer-review journals, and apply for independent research support. The Program encourages the participation of developing investigators from throughout the Medical Sciences Campus with the expectation that this support will empower them to compete on a more equal basis with researchers from more gifted institutions.

Minority Biomedical Research Support - Research Initiative for Scientific Enhancement (MBRS RISE)

The purpose of the MBRS Research Initiative for Scientific Enhancement (RISE) Program is to enhance the research environment at minority-serving institutions. The overall goal is to increase the interest, skills and competitiveness of students and faculty in pursuit of biomedical research careers.

PR Elderly Health Conditions

The Puerto Rican Elderly: Health Conditions (PREHCO) project provides quality data for researchers and policy makers about issues affecting the elderly population in Puerto Rico: health status, housing arrangements, functional status, transfers, labor history, migration, income, childhood characteristics, health insurance, use of health services, marital history, mistreats sexuality, etc.

Puerto Rico Biomedical Research Education Program

The mission of the Biomedical Research Education Program (BREP) of Puerto Rico is to improve the knowledge of K-12 Puerto Rican students about biomedical research focusing on diseases and disorders that disproportionately impact the Puerto Rican population, with the long term goal of increasing the number of Puerto Rican students who pursue a career in the biomedical sciences. This mission will be achieved through the following five initiatives:

School of Dentistry Research Center

The Center for Clinical Research and Health Promotion from the School of Dentistry of the UPR Medical Sciences Campus foresee to make important contributions to improving global health

and reducing disparities through research and health promotion activities, and the develop a strong research team that conducts and promotes internationally relevant and meritorious clinical research and health promotion activities. The center and its website is supported by Grant Number G12RR03051 (RCMI Program, UPR Medical Sciences Campus) from the National Center for Research Resources (NCRR), a component of the National Institutes of Health (NIH).

Puerto Rico Public Health Leadership Institute

ILISAP PR is an institute for applied research in public health leadership directed at health professionals in Puerto Rico and other Latin American countries. This two year continuing education program offers an innovative approach to leadership development. The Institute is co-sponsored and funded by the Puerto Rico Department of Health and the University of Puerto Rico (UPR) Graduate School of Public Health. The Institute's headquarters are located on the fourth floor of the main building of the UPR Medical Sciences Campus. Institute scholars will receive a participation certificate, as well as, continuing education credits once they have fully completed the educational experience.

Quantitative Cytopharmacology

The Quantitative Cyto-Pharmacology Laboratory (Lab A-331) is located on the 3rd floor of the Medical Sciences Campus and consists of an 800sqf area divided in office (120sqf) and laboratory (680sqf) space. A fully equipped tissue culture area is available. Areas for cell sample preparation for immunopheno typing, chemical analysis and basic molecular biology studies are also provided. The RCMI Program Core Laboratories, Flow Cytometry Unit, Image Analysis Resource Center and Molecular Biology Core Facility are also available to our research personnel for conducting experimental studies.

Specialized Neurosciences Research Program

The NeuroAIDS Program at the University of Puerto Rico Medical Sciences Campus is supported by the National Institutes of Neurological Disorders and Strokes (NINDS). The Program is one of the Specialized Neurosciences Research Programs (SNRP) on Health Disparity regarding HIV and the Nervous System. The proposal was granted as a response to a request for application (RFA NS99-007) addressing the nervous system manifestations present in HIV patients and the high incidence of the epidemic in minority populations. The NeuroAIDS Program of the UPR MSC has two NINDS funded projects and two pilot studies ongoing. These projects are in collaboration with well recognized HIV investigators. These research collaborations offer the opportunity to establish state-of-the-art research projects and strengthen current research at the UPR MSC.

AIDS Clinical Trials Unit

The ACTU is part of belongs to an AIDS clinical trial network including different universities in the United States, Puerto Rico, Brazil and Italy. These centers actually work in the advancement of new AIDS treatments and other associated conditions to Human Immunodeficiency Virus. ACTU is a component of the Medicine Department of the School of Medicine. It is supported with funds from the National Institute of Health (NIH) and the National Institute of Allergies and Infectious Diseases (NIAID).

Unit of Comparative Medicine

The Unit of Comparative Medicine (UCM) of the Medical Sciences Campus (MSC), University of Puerto Rico (UPR) was established on October 1, 1999. Under the Chancellor's Office, the UCM serves as an administrative umbrella which oversees three research units: the Animal Resources Center (ARC), the Animal Facilities at the Institute of Neurobiology (AFIN), and the Caribbean Primate Research Center (CPRC) including Cayo Santiago. The unit consolidates these three individual MSC animal research facilities into one campus unit.

Bio-Mentes at UPR

The Amgen Bio-Minds Program (Biotechnology Mentorship Initiative to Develop Scientists Program) is an initiative funded by the Amgen Foundation in collaboration with the University of Puerto Rico. Its goal is to promote undergraduate research in the areas of science and engineering that support the advancement of biotechnology.

UPR Cayey

Interdisciplinary Research Institute

The Interdisciplinary Research Institute is especially committed to developing scientific research programs that build on the local/regional application of knowledge to make critical contributions to Puerto Rico particularly to communities served by UPR Cayey. The Institute also seeks to facilitate the research endeavors of UPRC faculty and provide significant research experiences for undergraduates

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UPR Humacao

Partnership for Research and Education in Materials

The objective of PREM is to broaden participation and enhance diversity in materials research and education by stimulating the development of formal, long-term, multi-investigator, collaborative research and education partnerships between minority-serving colleges and universities, women's colleges, and colleges and universities dedicated to educating a majority of students with disabilities, groups that are underrepresented in science, technology,

engineering, and mathematics (STEM) and the NSF Division of Materials Research (DMR)-supported centers and/or facilities.

MARC Program

The Minority Access to Research Careers (MARC) Program, sponsored by the National Institute of General Medical Sciences (NIGMS), has been designed to provide honors students with research related activities and a special science curriculum that will improve their possibilities of being accepted on a Ph.D. or M.D./Ph.D. program and being successful in biomedical research graduate programs. The Program accepts students from the Biology, Chemistry, Industrial Microbiology, and Biotechnology Departments.

UPRH-Biomedical Research Improvement Program MBRS-SCORE

The general aim of this program on is the upgrade of physical and human resources at the University of Puerto Rico at Humacao (UPRH) in order to increase and improve its biomedical research activity. The following goals are set in pursuing these major aims: (1) to increase the biomedical research capacity at UPRH; (2) to increase the number of natural sciences faculty at UPRH involved in biomedical research and the number of biomedical research collaborations with research-intensive institutions; (3) to increase the number of biomedical research collaborations with research-intensive institutions; (4) to increase the number of submitted biomedical research grant applications from UPRH to non-mbrs extramural biomedical research agencies; and (5) to increase the biomedical research productivity at UPRH.

UPRH-Biomedical Research Improvement Program MBRS-RISE

The purpose of the MBRS Research Initiative for Scientific Enhancement (RISE) Program is to enhance the research environment at minority-serving institutions. The overall goal is to increase the interest, skills and competitiveness of students and faculty in pursuit of biomedical research careers.

Cabo Rojo Salterns Microbial Observatory

The National Science Foundation had funded the University of Puerto Rico in Humacao to establish a Microbial Observatory (MO) in the Cabo Rojo Salterns in Puerto Rico. The salterns are composed of an estuary surrounded by natural mats that feeds a series of artificial salt ponds with seawater.

Bio-Mentes at UPR

The Amgen Bio-Minds Program (Biotechnology Mentorship Initiative to Develop Scientists Program) is an initiative funded by the Amgen Foundation in collaboration with the University of Puerto Rico. Its goal is to promote undergraduate research in the areas of science and engineering that support the advancement of biotechnology.

Office of the Vice President for Research and Technology

[Resource Center for Science and Engineering](#)

The University of Puerto Rico created the Resource Center for Science and Engineering (RCSE) in 1980 to foster and nurture a community of future scientists, mathematicians, engineers, and technologists to provide Puerto Rico with the human resources infrastructure and research base needed for the island's economic development and global competitiveness. Founded with joint support from the National Science Foundation, the RCSE has been extremely successful in pursuing its goals and has experienced a sound and steadfast growth in the scope of its programs during these 21 years. Since its inception, the RCSE leadership realized that the achievement of its organizational mission would require monumental changes leading to the transformation of the educational system, which could not be adequately addressed through piecemeal interventions in isolated components of the system. This analysis leads the RCSE to adopt a system's thinking perspective as a framework for its strategic planning and organizational development process. This systems perspective is what has set the RCSE apart from other educational institutions, and has been a salient characteristic in the success achieved.

[Institute for Functional Nanomaterials \(IFN\)](#)

The Institute for Functional Nanomaterials is a research centre in the field of functional nanomaterials. It is managed by the Resource Center for Science and Engineering and has active participants from four campuses of the University of Puerto Rico (UPR). The institute was established in 2007 with a \$9 USD million NSF grant over 3 years in the reserve round, and an institutional contribution from UPR in the amount of \$3.9 USD million over the three-year duration of the grant.

[Puerto Rico Louis Stokes Alliance for Minority Participation](#)

The Puerto Rico Louis Stokes Alliance for Minority Participation (PR-LSAMP) Phase IV is a collaborative between the National Science Foundation (NSF) and the University of Puerto Rico (UPR) system and two private universities -- Inter-American University System (IAU) and the Pontifical Catholic University of Puerto Rico (PCUPR). Created in 1991, PR-LSAMP aims at increasing the number of students who successfully complete a baccalaureate degree in science, technology, engineering, and mathematics (STEM), and pursue and complete a graduate degree in a STEM-related field.

[Puerto Rico Advanced Technological Education \(PR-ATE\)](#)

The PR-ATE project oriented is to strengthen the preparation of Hispanics, both in Puerto Rico and the mainland, in the field of electronics at the secondary, associate degree and baccalaureate levels to meet the national standards in electronics education, through curricular enhancement, teacher and faculty development and experiences in industry.

Alliance for Graduate Education and the Professoriate (AGEP)

The main goal of this project is to increase the productivity of the University of Puerto Rico PhD programs in Biology, Chemistry, Chemical-Physics, Marine Sciences, and Civil Engineering. Minority enrollment in these programs will be increased by 30%. The main strategy is a continuum of support activities for the transition into, and completion of PhD studies, beginning with the recruitment of undergraduate students who are in research, and support during the first year of graduate studies through a bridging seminar and peer mentors.

Partnership for Innovation (PFI) to Enhance Puerto Rico's Economic Development

The University of Puerto Rico System leads this partnership which includes major pharmaceutical, biotechnology and electronic industries, universities, state government agencies and various private and entrepreneurial organizations including venture capitalists and incubator facilitators. The goals for this recently approved project: create curricular materials and programs that will nurture the development of young local entrepreneurs to help reduce PR Science and Technology brain drain and increase the number of high-tech start-ups in Puerto Rico; contribute to the implementation of PR's Science and Technology Policy and its strategic plan by providing guidance to and forging partnerships between academic to accelerate innovation and technology transfer in PR; Enhance and promote communication and the transfer of knowledge and know-how between the academic and industrial sector needed for successful innovation, and develop the infrastructure necessary to accelerate the conversion of innovation into economic development.

The Experimental Program to Stimulate Competitive Research

The National Science Foundation (NSF) established the Experimental Program to Stimulate Competitive Research (EPSCoR) in 1979 in response to Congressional concerns about the geographic concentration of federal support for academic research and development (R&D). EPSCoR is designed to expand and enhance the research capability of scientists in states that traditionally have lacked strong university-based research efforts, to compete more successfully for a portion of the \$17 billion federal academic R&D budget.

Institute of Disability and Rehabilitation Research (Filius)

FILIUS is envisioned as a socially responsive multi-disciplinary and multicampus research and development organization, which addresses the rehabilitation needs of Hispanic Individuals with disabilities, to improve their quality of life. Its research, service policy analyses, intramural services, public dissemination, faculty and student education, and professional training initiatives will have a definite impact on persons with physical, cognitive, sensory communicative, and psychological disabilities in Puerto Rico, the United States , and Latin America.

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