

## ENVIRONMENTAL HEALTH RESEARCH AT THE UNIVERSITY OF PUERTO RICO MEDICAL SCIENCES CAMPUS

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**Abstract:** As stated by The Healthy People 2020, “maintaining a healthy environment is central to increasing quality of life and years of healthy life”. Globally, nearly 25 percent of all deaths and the total disease burden can be attributed to environmental factors (WHO, 2006). Environmental factors are diverse and far reaching. Furthermore, poor environmental quality has its greatest impact on people whose health status is already compromised. Recognizing this reality, the University of Puerto Rico Medical Sciences Campus encourages and supports research studies and initiatives that address environmental health issues relevant to the Puerto Rican population. The Puerto Rico Testsite for Exploring Contamination Threats (PROTECT) and the Center for Research on Early Childhood Exposure and Development (CRECE, “grow” in Spanish) in Puerto Rico are excellent examples of unique environmental health initiatives. The PROTECT program studies exposure to environmental contamination in Puerto Rico and its contribution to preterm birth (less than 37 completed weeks of gestation). In Puerto Rico, the preterm birth rate is 11.8% of live births, the third highest rate of preterm births for countries globally. Preterm birth is the leading cause of neonatal mortality in the U.S., and is associated with chronic health conditions and developmental disabilities that cause lifelong consequences. CRECE studies how combinations of environmental exposures and other factors affect the health and development of infants and children living on the heavily-contaminated island of Puerto Rico – an underserved, highly-exposed, and low-income population with significant health disparities. Both programs are supported by the U.S. Environmental Protection Agency and the National Institute of Environmental Health Sciences. A third initiative deserving special attention is the Center for Tropical Biodiversity and Bio-prospecting. Tropical biodiversity has been recognized worldwide as a valuable asset with numerous potential environmental benefits to society. Supported by the Puerto Rico Science, Technology and Research Trust, this Center advances the exploration of tropical biodiversity, the development of searchable collections of biological specimens from tropical environments, the conservation of biodiversity resources and the commercialization of biodiversity-derived products. These multidisciplinary initiatives, involving over 50 investigators and more than 1,000 community participants, evidence the commitment of the UPR-MSU to environmental health and its impact on the Puerto Rican population.

**Key Words:** environmental health, preterm birth, environmental contamination, childhood exposure, tropical biodiversity

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