



ABSTRACT FOR POST MEET UP JOINT

COMMUNICATION

Environment, Cancer, and Microbiome: Interdisciplinary Perspectives from Puerto Rico

Environmental challenges in Puerto Rico—including climate hazards, air pollution, and ecological disruptions—pose significant risks for public health, particularly cancer and related chronic diseases. This meet-up, to be held at the Molecular Sciences Building, brings together diverse local experts to examine the interconnections between environment, cancer disparities, and the microbiome, highlighting opportunities for collaborative action across disciplines.

The meeting will open with institutional introductions from CARIB-CARES, CPCHE, and the Puerto Rico Center for Microbiome Sciences, establishing a shared framework for interdisciplinary collaboration. Session one, hosted by CARIB-CARES, will address the profound health impacts of climate hazards and air quality in Caribbean communities. Topics include air contamination, cancer prevention strategies after Hurricane Maria, the integration of environmental sampling with patient outcomes, and regional resilience in the face of natural and man-made exposures such as Saharan dust and pollution.

Session two, co-led by the COBRE centers, CPCHE and Microbiome, will explore cancer health disparities and the emerging role of the microbiome in health and disease. Presentations will highlight cancer risk in Hispanic populations and microbiome research that provides critical insights into disease dynamics in Puerto Rico.

The symposium will conclude with a multidisciplinary panel discussion, emphasizing integration and future directions. Speakers and participants will engage in a dialogue to identify synergies across environmental sciences, cancer epidemiology, and microbiome research, and to consider how these connections can inform public health interventions, policy, and community resilience strategies. A call to action and joint center initiatives are expected as an outcome of this discussion.

By fostering collaboration among scientists, clinicians, and community stakeholders, this meeting will underscore the urgency of addressing environmental determinants of cancer while recognizing the microbiome as a key mediator of health. The symposium aims to lay the groundwork for joint research, a shared commentary to be submitted to a peer review journal, and future initiatives to advance health outcomes in Puerto Rico.