CRECE
Center for Research on Early Childhood Exposure and Development in Puerto Rico

What is CRECE:
The Center for Research on Early Childhood Exposure and Development (CRECE, Spanish for “grow”) in Puerto Rico studies how mixtures of environmental exposures and other factors affect the health and development of infants and children living in the heavily-contaminated island of Puerto Rico – an underserved, highly-exposed, and low-income population with significant health disparities.

Why Puerto Rico?
Over 200 hazardous waste sites in the region
High levels of air pollution
Highest rate of childhood asthma in the U.S. (16.5%)
High preterm birth rate (18%)
High rates of autism and childhood obesity
Added burden of poverty-related health disparities

Who is involved?
As a multi-project, multi-institution collaboration (including Northeastern University, University of Puerto Rico, Silent Spring Institute, University of Georgia and University of Michigan), CRECE is designed to tackle the conceptual, epidemiological and methodological challenges that mixture studies require by conducting a multifactorial exposure investigation in an existing birth cohort in Puerto Rico called Puerto Rico Testsite for Exploring Contamination Threats (PROTECT).

CRECE uses a holistic system of research, training and stakeholder engagement to study how mixtures of environmental, psychosocial and other exposures affect growth and development from gestation through early childhood in Puerto Rico.

Research Projects and Support Cores

Projects
1. Air Pollution Impacts on Neonatal and Early Childhood Development
   Helen Suh
2. Toxicogenomics-based Mechanistic Multimedia Exposure Assessment and Child Development
   April Gu
3. Biomarker Epidemiology of In Utero Environmental Exposures and Child Development
   John Meeker

Cores
Administrative Core
Akram Alshawabkeh and José Cordero

Human Subjects Core
José Cordero

Community Outreach and Translation Core
Phil Brown and Carmen Vélez Vega

Team Members
Northeastern University
Akram Alshawabkeh, Phil Brown, April Gu, Justin Manjourides, Helen Suh, Emily Zimmerman

University of Georgia
José Cordero, Zaira Rosario Pabon

University of Puerto Rico
Gredia Huerta-Montañez, Colleen Murphy, Abigail Figueroa Navedo, Carmen Vélez Vega

University of Michigan
John Meeker, Bhramar Mukherjee, Deborah Watkins

For more information, visit northeastern.edu/crece