

Principal Investigator: Marsit, Carmen Joseph	
Institute Receiving Award	Emory University
Location	Atlanta, GA
Grant Number	P30ES019776
Funding Organization	National Institute of Environmental Health Sciences
Award Funding Period	21 May 2013 to 31 Mar 2027
DESCRIPTION (provided by applicant):	<p>PROJECT SUMMARY – HERCULES: EXPOSOME RESEARCH CENTER The Emory Human Exposome Research Center Understanding Lifetime ExposureS (HERCULES) Environmental Health Core Center has an overarching vision to serve as an intellectual hub in the advancement and translation of exposome research to improve human health. Our vision is shaped by a charge to enhance and extend environmental health research, foster innovation and collaboration, engage with communities and stakeholders, and support research translation to accelerate impact. HERCULES employs the framework of the exposome, defined as the totality of exposures, biological responses and societal factors experienced across a lifespan, which impact the environment experienced by an individual. HERCULES Members comprise 71 researchers from 24 departments at Emory University and the Georgia Institute of Technology, connected by a shared mission of learning how the exposome affects health and community well- being and using that knowledge to improve human health. The overarching goals of the Center are to a) innovate in the tools, application, and data science of exposome research, b) promote and grow translational environmental health research at Emory and Georgia Tech, and c) strengthen and expand partnerships with metro Atlanta area communities to enhance their ability to assess their exposome and respond to their environmental health priorities. To achieve these goals, HERCULES supports an Integrated Health Sciences Facilities Core, which operationalizes the exposome concept within a targeted analysis facility, an untargeted high resolution metabolomics facility, and translational research unit, as well as an Environmental Health Data Sciences Core to enable and interpret multidimensional exposomic output, providing an ecosystem of data sciences services. The Community Engagement Core serves to define and apply exposomics through bi-directional interactions with community groups and stakeholders and leads a program of community engagement and support. Our highly successful Pilot Project Program innovates exposome research, with priorities on early career investigators, translational, and community-engaged research through both larger traditional pilots and smaller, time-sensitive awards. The Center’s Administrative Core coordinates activities and communication and uses evaluation to ensure that the Center’s goals are achieved. A career development program also will support targeted early career investigators recruited to Emory and the Center and will provide support for both early career and established investigators to develop new skills or research directions. In its vision, aims, and diverse community of members and stakeholders, HERCULES serves as the home to environmental health research at Emory University, Georgia Tech, and the metro Atlanta area, providing infrastructure, scientific leadership, and collaborative resources for our members to develop and implement innovative exposome research and improve human health.</p>
Science Code(s)/Area of Science(s)	<p>Primary: 31 - Environmental Health Sciences Centers</p> <p>Secondary: 01 - Basic Cellular or Molecular processes</p>
Publications	No publications associated with this grant
Program Officer	Claudia Thompson