

New NIEHS-funded center focuses on urban environmental stressors

By Joe Balintfy

A new grant from NIEHS will allow researchers to study how exposures to stressors that are prevalent in the urban industrialized environment impact human health in Detroit and beyond.

The grant, awarded to Wayne State University, is one of 21 Environmental Health Sciences **Core Centers** funded by NIEHS. The new Center for Urban Responses to Environmental Stressors (**CURES**) (<http://iehs.wayne.edu/cures.php>)

includes collaborators at Henry Ford Health System, the University of Michigan, and Michigan State University, as well as community organizations.

"This group has really embraced community-engaged research as part of a central core value for their center," said Claudia Thompson, Ph.D., head of the NIEHS Population Health Branch. At the heart of CURES is a grass-roots community engagement program committed to improving living and working environments in the city of Detroit.

Understanding environmental health disparities

CURES places special emphasis on understanding how environmental exposures, during life windows of heightened susceptibility, can adversely affect health, particularly in vulnerable persons, such as children and adults of low socioeconomic status, older adults, first responders, and refugees. The center emphasizes broad interactions with the public, as well as leaders of advocacy, community, and government organizations dealing with the environment and health. "This center is focused in on areas and questions of environmental health disparities," added Thompson.

CURES will study diseases that compromise quality of life in an industrialized urban environment, such as Detroit, explained CURES co-leader, Melissa Runge-Morris, M.D., director of the Institute of Environmental Health Sciences (IEHS) and professor of oncology at Wayne State University. "Our team of researchers, along with community members, will explore the role of environmental exposure on immune disorders, metabolic disease, cancer, and mental health," she said.

Studying multiple sources of exposure

CURES takes a unique approach toward the origins of disease in the urban setting. It proposes that quality of life may be compromised due to dynamic interactions involving an individual's genes, nutrition, and environmental stressors. The center specifically focuses on chronic low-level exposures to toxic substances, as well as psychosocial and physical stressors, that reprogram key cellular regulatory networks, which may lead to disease.

(This story was adapted from a Wayne State University [news release](#).

(<http://media.wayne.edu/2014/06/17/wayne-state-university-receives-24-million-nih>)

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CURES, co-led by Runge-Morris, applies team-based approaches that integrate multiple disciplines to address pressing environmental health problems. (Photo courtesy of Wayne State University)



Thompson explained that core centers are hubs of intellectual integration and translation, bringing researchers together and allowing for synergy and collaboration on projects, to enhance their own research, as well as environmental health science research. (Photo courtesy of Steve McCaw)

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