



The Center for Urban Responses to Environmental Stressors Announces 2017 Request for Pilot Project Proposals

What is CURES?

The Center for Urban Responses to Environmental Stressors (CURES) is a National Institute of Environmental Health Sciences (NIEHS)-funded P30 Core Center that has been established to develop the leadership and research capacity to identify, evaluate, and mitigate Detroit's environmental health challenges in close collaboration with the community and environmental policy makers. CURES is an active partner in the collective goal of creating a healthier Detroit.

CURES is focused on understanding how chemical and non-chemical stressors in the urban environment affect the health and well-being of Detroit's vulnerable populations. Detroit is encumbered with an overabundance of industrial and post-industrial environmental toxicants, socioeconomic strains, physical and emotional stress, and housing decay. Identifying these hazards and enhancing our understanding of how they impact our health is key to devising effective prevention and remediation efforts. CURES is strategically designed to facilitate transdisciplinary research focused on: (1) exposure to stressors that are especially prevalent in the urban industrialized environment, including chemical and non-chemical stressors, (2) the experiences of people who are particularly vulnerable to the adverse effects of such exposures (e.g., children, older adults, ethnic and racial minorities, immigrants, and refugees), and (3) linking such environmental exposures to public health in Detroit.

The overall goals of CURES are to (1) develop and strengthen partnerships between CURES and the Detroit community; (2) in collaboration with our partners, identify key environmental threats to Detroit's vulnerable populations; (3) conduct highly integrated mechanistic, epidemiological, and community-engaged research addressing the impact of urban environmental exposures on health; (4) build CURES' capacity to accomplish its research goals by providing facility cores that are optimized to meet the needs of our researchers and "seed funds" for pilot projects to explore the feasibility of new areas of study; and (5) enhance the impact of CURES on the field of environmental health science by mentoring new and mid-career investigators, supporting their professional goals, and preparing them for leadership in environmental health research.

What is the purpose of this RFA?

CURES uses input from its Community Advisory Board to inform research priorities. The primary goal of the CURES Pilot Project Program is to develop research capacity and expertise to address those priorities.

This RFA seeks applications for research projects focused on understanding or mitigating the deleterious effects of environmental stressors on human health. Based on input from the Community Advisory Board for this year's competition, applications for pilot projects are especially encouraged in the following areas affecting health: (1) **Air pollution**, (2) **Water quality**, and (3) **Combined effects** of chemical and non-chemical environmental stressors.

Time Line

July 19 and 20, 2017	Informational Meetings: Potential applicants are invited to attend one of the meetings indicated below to learn more about the CURES Pilot Project Program. Wednesday, July 19, 2:00 – 3:00PM: WSU Office of the Vice President for Research, 5057 Woodward Avenue, 6 th floor, Conference Room A. Thursday, July 20, 10:00 – 11:00AM: Integrative Biosciences Center (IBio), 6135 Woodward Avenue, Conference Room 2B. Parking will be available in the IBio visitor's lot, off of Burroughs.
August 7, 2017	Letters of intent (LOI) due by midnight
August 14, 2017	Notification of successful LOIs and invitation to submit proposal
September 18, 2017	Full applications due by midnight
~October 15, 2017	Announcement of awards; funding to begin as soon as possible afterward

Submission of Information

Submit Letters of Intent (LOI) in PDF format as an e-mail attachment to:

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Division of Research
Institute of Environmental Health Sciences (IEHS)
Center for Urban Response to Environmental Stressors (CURES)
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Questions

If you have questions, please contact:

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What is the theme of this RFA?

This RFA seeks applications for research projects that are focused on understanding or mitigating the effects of the environment on human health. Based on recent input from the CURES Community Advisory Board, this RFA particularly encourages applications for pilot projects that address: (1) Air pollution, (2) Water quality, (3) Combined effects of chemical and non-chemical environmental stressors.

- ❖ **Air pollution and health:** Detroiters are exposed frequently to unhealthy levels of air pollution and they are concerned about such health issues as asthma, cumulative long-term impacts of air pollution on health, adverse health effects of air pollution in Southwest Detroit and downriver communities, and health effects of the Detroit Incinerator.
 - ❖ **Water quality and health:** The Flint water crisis demonstrated in dramatic fashion how a shock to an aging urban water distribution system can lead to a public health disaster. Detroiters are concerned about chemicals in their water (e.g., lead, disinfectant by-products, pharmaceuticals, chemicals from hazardous waste sites, discharges from waste processing facilities) and how these chemicals could be affecting their health.
 - ❖ **Combined effects of chemical and non-chemical environmental stressors on health:** People are exposed to complex combinations of stressors that include multiple chemical pollutants in air and water as well as a host of non-chemical stressors associated with the “built environment” (e.g., walkability, bikeability, access to public transportation, access to recreational opportunities, features of housing including rental units), the economic and social environment (e.g., low socioeconomic status, interpersonal relationships, violence), and the food environment (e.g., access to safe, nutritious food). Projects that consider combinations of stressors are encouraged (especially combinations of chemical and non-chemical stressors).
- Although this RFA encourages applications in the areas named above, it does not limit applications to those topics. However, applicants must provide a compelling justification for the selected topic, both in terms of the importance of the environmental health problem and the likelihood that the proposed research project will have a substantial impact in addressing the problem.
 - Proposed pilot studies must be research projects with high potential to yield peer-reviewed publications in high-impact journals and high likelihood of being developed into larger, longer-term projects supported by extramural funding, preferably from NIEHS. An absolute expectation is that pilot project recipients will publish their findings (citing CURES in the publications) and submit applications for extramural funding based on their projects.
 - CURES is committed to performing research relevant to the community. While this RFA welcomes all types of environmental health-related research activity (e.g., fundamental mechanistic research, population-based research, clinical health studies), proposals that include partnerships with community members are always encouraged. Also, environmental health disparities and environmental justice are fundamental themes of importance to the CURES mission of community engagement. Proposals that address these themes are always encouraged.
 - Research projects that involve interdisciplinary collaborations are always encouraged.

What are the terms of this RFA?

1. **Number of awards:** CURES plans to fund 5 to 6 pilot projects.
2. **Funding time and amount:** Each pilot project will be funded for ~1.5 years at a total amount of up to \$65,000 in direct costs. There will be no funds allocated for administrative and facility costs (indirect costs). Successful applicants will receive up to \$35,000 as soon as they have completed all pre-award requirements (described below), expected to occur in mid-October, 2017. On approximately April 1, 2018, upon demonstration of satisfactory progress, the projects will receive the remainder of the award. Awarded funds **must be expended** by March 31, 2019 – there is no possibility for no-cost extension. Contingent on availability of funds, it is envisioned that pilot project recipients may have an opportunity to apply for additional funds (estimated up to \$25,000) to continue projects to complete work considered to be essential for preparing a successful NIEHS grant application. Awarding of any additional funds will be strictly contingent on tangible progress on the pilot project, as demonstrated by publication of pilot project findings and/or submission of a grant application(s) to an extramural funding agency (preferably NIEHS).
3. **Eligible applicants:** Eligible applicants will include all current CURES members as well as non-CURES members at Wayne State University and Henry Ford Health System who declare their willingness to join CURES and abide by its policies. Each Pilot Project PI must have a faculty or other appointment that would enable him/her to submit an extramural research grant application as a PI. Additional participants [e.g., MPIs (multiple principal investigators), co-investigators, collaborators, consultants] who will strengthen the project are encouraged. A community member may serve as an MPI (together with another investigator who meets the above-described criteria for PI), co-investigator, or collaborator, as appropriate to strengthen the project.

A list of current CURES members can be found on the CURES website:
<http://cures.wayne.edu>.

A table of the CURES Community Advisory Board members with brief descriptions of their organizations is provided at the end of this RFA, which is followed by a table that summarizes environmental health concerns that were expressed by Community Advisory Board members in a recent survey. Researchers who would be interested in developing an application in coordination with any of these community organizations are encouraged to contact CURES Community Outreach and Engagement Coordinator Brian Smith: E-mail: brian.smith9@wayne.edu; Phone: 313-577-5045

4. Requirements:

- 1) The proposed research project **must be responsive to this RFA** – i.e., it must be a research project that addresses an environmental health problem of priority concern to the community.
- 2) The proposed research project **must be of outstanding merit** – i.e., there must be a high likelihood that the proposed research project will have a substantial impact in addressing the problem, and there must be a high likelihood that the pilot award will lead to NIEHS funding.
- 3) While not absolutely required, another desirable characteristic of a successful application will be inclusion of a “new investigator” (as defined by NIH). This will facilitate the career development mission of CURES. An NIH-defined new investigator is a researcher who has not yet been PI on a substantial NIH independent research award, such as an R01 grant. **We anticipate that at least two of the pilot projects to be funded will have a new investigator as PI or MPI.** Highest consideration for these awards will be given to “early stage

“investigators” (new investigators who completed their terminal research degree or medical residency – whichever date is later – within the past 10 years).

- 4) Also although not absolutely required, another highly desirable characteristic of a successful application will be the planned **use of one or both of the CURES facility cores**: (1) the Integrated Health Sciences Facility Core and (2) the Exposure Signatures Facility Core. The two facility cores are described in detail later in this document. The Exposure Signatures Facility Core has some limited funds available to facilitate access to its services. Applicants contemplating using the facility cores should contact the core leaders early in the process of developing a project.

What may funds be used for?

Funds **may** be used as follows:

1. To purchase supplies, reagents, or equipment (clear justification required). Computers costing less than \$5,000 and software fees are allowed.
2. For technical support salaries
3. For incentives for community partners and community research participants.

Funds **may not** be used as follows:

1. For salary support of faculty
2. For travel, except local travel (e.g., mileage for staff collecting data, environmental samples)

How do I apply?

The first step is to submit a letter of Intent (LOI) that is no more than 3 pages in length. The LOI should:

- Explain clearly why the proposed research is responsive to this RFA. The significance and potential impact of the proposed project need to be strongly justified, and it needs to be clearly explained why the project is of substantial concern to the community.
 - Include a “Statement of Impact” that explains why the project is significant and innovative, and why it will have a substantial impact on the field and/or the community.
 - Identify the PI (or MPIs) and other participants and describe their positions, roles, and qualifications. If the project will involve a partnership with a community member or group, the specific role(s) of the community partner(s) should be clearly described.
 - Provide a brief description of the project, including hypotheses, specific aims, and methods to be used.
 - Provide a timeline for the proposed project that includes any need to obtain regulatory approvals (e.g., animal and/or human subjects) as well as the estimated time to perform the study. This will facilitate assessment of the feasibility of performing the study within a 1.5-year timeframe.
 - Provide an estimate of the total budget and expected use of the funds (one paragraph)
- Potential applicants are required to consult with leaders from the Integrative Health Sciences Facility Core and the Community Outreach and Engagement Core to discuss the proposed research team, research design, and community partnership opportunities. This can be achieved by email or in person at the applicant’s discretion. Contact information is provided later in this document.

- LOIs will be reviewed by a committee that is selected from the CURES program leadership and Community Advisory Board. The Community Advisory Board members of the committee will be asked specifically to provide their assessment of how well the project addresses an environmental health problem of concern to the community. **No LOI that fails to receive this endorsement will be selected for submission of a full application.** In the case of overlap among proposals, CURES may suggest collaboration.

The second step is for invited investigators to submit a full application. Details for preparing full applications will be provided to successful applicants when they are notified of their selection but the format will essentially be that of an NIH R03 application with some additional requirements, as indicated:

- a) Cover Page
- b) Abstract and Personnel
- c) Research sites
- d) Biographical Sketches of key personnel
- e) Other Support for PI (or MPIs)
- f) Available resources
- g) Budget and Justification
- h) Specific Aims (1 page)
- i) Research Strategy (6 pages)
 - a. Significance
 - b. Innovation
 - c. Approach (Preliminary Data should be incorporated into this section)
- j) References Cited
- k) Human, Vertebrate Animal, and Hazardous Materials Assurances of Compliance - Investigators using animals or human subjects in their research must obtain protocol approval from the Institutional Animal Care and Use Committee (IACUC) or the Institutional Review Board (IRB), as applicable, before funds can be spent on activities that require such approval.
- l) Plans for submission of research grant applications to external funding agencies, especially NIEHS
 - Applicants are advised to check the Funding Opportunity Announcements (FOAs) on the NIEHS website (<https://www.niehs.nih.gov/funding/>) for information about research areas currently being emphasized by NIEHS. Applications that are related to current FOAs may be rated as stronger.
- m) Letters of commitment from all PIs and co-investigators (and any additional community partners who have roles other than MPI or co-investigator).
- n) Signatures from the departmental chairs/directors of the PIs academic units. If you are the departmental chair, your Dean or Vice President should sign.

Pre-award responsibilities. Successful applicants will be required to attend a pre-award meeting with the Pilot Project Program Leader and the OVPR Manager, Research Support, at which awardees will be advised about account establishment and monitoring, the need to expend awarded funds within the specified time period, and the requirement to acknowledge support received from CURES in any publications or presentations generated under the pilot project award. Necessary IRB and/or IACUC approvals must be obtained as soon as practicable.

Award-time responsibilities

- ❖ PIs must cite the CURES Center Grant (P30 ES020957) on all publications that result from the pilot project award.
- ❖ PIs agree to meet periodically with CURES program leaders to provide updates on their projects, as requested.
- ❖ PIs must provide written updates on their research progress for annual progress reports and meetings with CURES Advisory Boards.
- ❖ PIs must present their research findings at one of the CURES Center-wide research meetings.
- ❖ Pilot project recipients will also be required to present their results at one of the CURES Community Outreach and Engagement Core's Environmental Health Forums.

Post-award responsibilities. Upon completion of a project, the PIs will be required to submit a report that contains the following information:

1. A list of any publications (i.e., research articles, review articles, abstracts; submitted, in press, or published) or patents that resulted from the pilot project award.
2. A list of any grant applications submitted (funded, pending, or non-funded) that resulted from the pilot project award in which the applicant was listed either as PI (or MPI), co-investigator, or other key personnel.
3. A description of collaborations that developed as a result of the pilot project award.

Pilot project recipients will be expected to submit applications for extramural funding to continue their projects as soon as practicable.

Please adhere to the following formatting requirements when preparing LOIs:

- Font: Use an Arial, Helvetica, Palatino Linotype, or Georgia typeface, a black font color, and a font size of 11 points or larger. (A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies.)
- Type density, including characters and spaces, must be no more than 15 characters per inch. Type may be no more than six lines per inch.
- Use standard paper size (8 ½" x 11).
- Use at least one-half inch margins (top, bottom, left, and right) for all pages.

CURES Facility Cores and Community Outreach and Engagement Core

1. Integrative Health Sciences Facility Core (IHSFC)

Leaders:

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Malcolm Cutchin, PhD
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The purpose of the IHSFC is to facilitate the design, development and ethical achievement and dissemination of the translational research goals of the CURES program. The IHSFC aims to support the multidisciplinary collaborative research interest groups in their pursuit of understanding the complex role of chemical and non-chemical stressors as modifiers of human health in the urban environment. The IHSFC accomplishes this objective through 4 integrated core services:

1. *Experimental Design and Biostatistics* – Consultation support for environmental health science investigations focused, but not limited to, human subjects, human samples, human populations, and general study design and data analysis plans. Advice on design and analyses is best sought early in developing a project. This is done via four mechanisms: a) Statistical consultation on pilot grant applications to and funded by CURES, b) Experimental design consultation on pilot grant applications to and funded by CURES, including but not limited to issues pertaining to IRB, IACUC, biohazards, and translational GLP, c) Biostatistics methods development in research pertaining to environmental health, and d) Biostatistical education for CURES members and for the university at large. The IHSFC collaborates with the CURES Career Development and Pilot Project Programs to facilitate research progress (from pilot projects to K awards and R21 applications, and to covert R03 and R21 awards to R/U/P01 applications).
2. *Health Models Development* – Integrating exposure assessment with human health impact. Helping research teams to select the appropriate models to capture windows of heightened susceptibility to environmental contaminant exposure, the health impact of chronic low-level exposure to toxicants, exposure to complex mixtures of toxicants. (e.g., animal models, stem cell models, primary animal or human cell culture models, access to specialized tissue banks such as the Michigan Neonatal Biobank).

3. *Ethics and Research Integrity in Environmental Health Science* – The protection and ethical treatment of patient subjects and samples is of paramount importance. These concerns expand and are integrated into our experimental design to acknowledge and address the appropriateness of certain levels of analysis that might have immediate or future implications for the safety and rights of an individual. The requirement for discussion of the propriety of proposed clinical translation studies serves not only to ensure the integrity of CURES' research endeavors but is an opportunity for career development of CURES program researchers. This topic will also cover emerging research ethics concerns with the expansion of "big data," EMR, human biospecimens, stem cell models, and geospatial analysis in environmental health research.
4. *Team Science Consultation* – Improving team development, integration, and implementation. Work with teams to identify the right players for their science. Help teams find ways to cohere and realize addressable issues before they become problems; and find ways to maximize collaboration and transdisciplinary insights. Suggest team processes to avoid pitfalls and deal with difficulties, such as conflict or leadership challenges. Primary goals are to enhance team effectiveness through evaluation and consultation, which may also include training or coaching.
5. *Bridging the Communication Gap* – Integrating the Effectiveness of Research and Community Partnerships. Work closely with Community Outreach and Engagement Core to identify community partners for appropriate CURES research teams. Cross-train CURES researchers and community members to communicate topic-relevant data, research goals, and likely achievements in a responsible manner. Enhance and initiate national and global initiatives to educate and advance research consistent with the mission of the NIEHS.

2. Exposure Signatures Facility Core (ESFC)

Leaders:

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"**Exposure Signatures**" include direct measurement of toxicants as well as the quantifiable responses of a biological system to an environmental stressor. The ESFC partners with established Core Facilities to provide essential analytical services for Center Investigators. These partners are: (1) the Applied Genomics Technology Center, (2) The Proteomics Core, (3) The Lumigen Instrument Center, (4) The Microscopy, Imaging & Cytometry Resources (*MICR*) Flow Cytometry Lab, (5) Cytokine Analysis, and (6) The Michigan State University Molecular Metabolism and Disease Mass Spectrometry Core (MMDMSC). Support is available to develop novel analytical procedures and to utilize Core Services by Center investigators.

1. *Genomic Services* – A full range of genome, transcriptome and epigenome analysis services are available to CURES Investigators through the Applied Genomics Technology Center at WSU. A Fluidigm C1 instrument for single cell RNA sequencing (RNA-seq) has been purchased and is being used for CURES projects. The purchase was in response to a CURES facility core usage survey that polled Center members' current and anticipated research needs. The Fluidigm C1 takes exposure science technology to the single cell level. It uses an alternative to traditional flow cytometry, utilizing microfluidics to separate single cells from test specimens in order to prepare libraries for RNA-seq or other types of genomic analyses. For example, using the C1 System, mixed populations of neurons and astrocytes can be analyzed at the single cell level with high resolution. This enables the detection of dramatic variations in gene expression that occur as a consequence of toxicant exposure.
2. *Proteomics including Protein Adducts* – Proteomic analyses are available through the Proteomics Core at WSU. A full range of mass spectrometry-based standard proteomic services are supported. In addition, the ESFC uses advanced proteomics technologies to identify and quantify protein adducts that occur as a consequence of environmental toxicant exposure. CURES researchers have detected adducts on serum albumin and hemoglobin; the two most abundant proteins in blood that act as buffers for reactive chemical intermediates. Analysis of adducts on albumin and hemoglobin can provide information on environmental exposures occurring as long as 60 to 90 days prior to sample collection.
3. *Metals, Trace Element and Small Molecule Analysis* – The ESFC partners with the WSU Lumigen Instrument Center for elemental and small molecule analysis. New instrumentation includes state-of-the-art GC-MS/MS and LC-MS/MS systems for small molecule analysis that were added in 2016. The new system is being used to develop analytical methods for phenolic chemicals such as bisphenol A, octyl- and nonylphenols that are widespread environmental toxicants. These analytical platforms are being used by CURES members to develop reproducible analytical methods for environmental exposure analysis. Volatile organic chemicals (VOCs) can also be analyzed and are among a wide range of environmental small molecules, including solvents, fuel components and chemical intermediates of interest to Center investigators. Dr. Westrick of the ESFC was recently awarded an Erb Foundation grant to design and evaluate a real-time VOC source-water early-warning system for drinking water treatment plants.
4. *Immunophenotyping Services and Instrumentation* – Technologies and services available to CURES investigators through partnership with the MICR Core include imaging cytometry (Amnis ImageStreamX Mark II), analytical flow cytometry (BD LSRII SORP, BD FACS Canto II), and cell sorting (Sony SY3200, two Sony SH800s). The newest technology that was added in 2016 is an imaging flow system that provides subcellular localization of fluorescently tagged cellular components using a flow cytometry system.
5. *Cytokine Analysis* – The complex interactions of toxicants and other stressors have become an important consideration in our studies. CURES' research capacity for radio-immuno assays, plate-conjugated, enzyme-linked immunosorbent assays (ELISA), and a bead-based ELISA platform from Perkin Elmer called AlphaLISA has been expanded. AlphaLISA provides sensitivity that is less than radio-immuno assays but greater than ELISA. Analytes will be added to the set of validated assays as CURES investigators identify key mediators of stress or potential exposure signatures among the signaling molecules.
6. *Untargeted Lipidomic Analysis* – The Molecular Metabolism and Disease Mass Spectrometry Core at Michigan State University (MMDMSC) led by Dr. Todd Lydic has been recruited by the CURES ESFC to provide lipidomic analysis. CURES investigators now have access to

untargeted shotgun MS/MS approaches to quantify several hundred to a few thousand lipids as potential novel exposure signatures. This is an extremely innovative and powerful approach to exposome analysis that will be increasingly important as environmental health research incorporates nonchemical stressors into models of toxicity and health effects of chemical exposures. Also, by utilizing Orbitrap MS systems and MSn capability in the same analytical run for in-depth structural elucidation, the ESFC can significantly reduce the required sample size and analytical time for deep lipidomic profiling. The use of high-resolution/accurate-mass MS for lipid and metabolite feature detection enables virtually endless mining of acquired MS datasets by accurate mass-based searches of multiple databases as new compounds of interest are identified.

3. Community Outreach and Engagement Core (COEC)

Recommended Contact:

Brian Smith
CURES Community Outreach and Engagement Coordinator
Integrative Biosciences Center
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Leaders:

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CURES Community Advisory Board (CAB) Members and Their Organizations

Organization and CAB Member	Description
American Cancer Society, Southeast MI Chimene Anderson	Nationwide, community-based voluntary health organization dedicated to eliminating cancer as a major health problem. Regional office is in Southfield and services Southeastern Michigan.
American Indian Health & Family Services Ashley Tuomi	AIHFS is a nonprofit health center serving the Native American community of Southeastern Michigan. Their mission is to empower and enhance the physical, spiritual, emotional, and mental wellbeing of American Indian families and other underserved populations in Southeastern Michigan through culturally grounded health and family services.
Asthma & Allergy Foundation of America, MI Chapter Kathleen Slonager, RN, AE-C, CCH	The AAFA is a nonprofit and the leading patient organization for people with asthma and allergies. The Michigan Chapter serves all Michigan residents of all ages affected by asthma and allergies. They provide resources for healthcare professionals, caregivers and childcare providers, and communities to make them better for those with allergies and asthma.
Catholic Charities of Southeast Michigan Joyce Hyttinen	CCSEM is the social service arm of the Archdiocese of Detroit. They provide a variety of services in adoption/foster care, mental/behavioral health counseling, family support services, immigration/refugee services, and senior programming to name a few.
City of Detroit Health Department Joneigh S. Khaldun, MD, MPH, FACEP Kim Rustem	The Detroit Health Department's mission is to improve the health and quality of life of Detroiters through innovative public health policy, programs and partnerships. They provide a variety of programs and services, to include WIC, immunizations, food safety and restaurant inspection, public health initiatives, and Detroit Animal Care and Control.
CLEARCorps/Detroit Mary Sue Schottenfels	CLEARCorps/Detroit works to prevent lead poisoning and create healthy homes for children and families through programs, education and outreach, and policy work. Their four main programs are centered around asthma triggers, lead hazards in homes, outdated refrigerator replacement, and furnace tuning/repair/replacement.
Detroit Food Policy Council Winona Bynum, RDN, PMP	The DFPC is an education, advocacy and policy organization led by Detroiters committed to creating a sustainable, local food system that promotes food security, food justice and food sovereignty in the city of Detroit.
Detroiter Working for Environmental Justice Guy Williams: CAB Co-Chair	DWEJ is a nonprofit organization whose mission is to create clean, healthy and thriving communities in Michigan by tackling environmental problems close to home. Their programs are centered around policy, education and workforce development.
Ecology Center Melissa Cooper Sargent: CAB Co-Chair Rebecca Meuninck	The Ecology Center was organized to develop innovative solutions for healthy people and a healthy planet. They educate consumers and families, push corporations to use clean energy make safe products and provide healthy food, and work with policymakers to establish laws that protect communities and the environment.
Green Door Initiative Donele Wilkins	GDI works to ensure that every person is environmental literate, and capable of practicing and promoting sustainability as a life style. Their programs include workforce development, environmental education and awareness, and land use

	development.
Greening of Detroit Rebecca Salminen Witt	The Greening of Detroit's focus is to enhance the quality of life for Detroiters by repurposing the land to create beautiful and productive green spaces. They involve Detroiters in the process through community engagement, education and jobs.
Healthy Detroit Nicholas Mikhtar	Healthy Detroit is a 501(c)(3) public health organization dedicated to building a culture of healthy, active living in the city of Detroit. Their vision includes the development of HealthParks designed to build a culture of primary prevention through an inclusive, collaborative effort. HealthParks provide residents with one stop shop neighborhood wellness hubs with a farmers market, outdoor fitness center, preventive care clinic, and indoor/outdoor recreation/wellness center and other programs.
Henry Ford Health System Kimberlydawn Wisdom, MD, MS	HFHS is a network of hospitals, medical centers and one of the nation's largest group practices. The Henry Ford Medical Group includes 1200+ physicians practicing in 40+ specialties.
Lutheran Social Services of Michigan Mihaela Mitrofan	LSSM is a social ministry of the Evangelical Lutheran Church in America and has more than 70 programs in 40 cities in the Lower Peninsula. Their larger programs are centered towards children and families, seniors, the disabled, and refugees.
Matrix Human Services Karen Bisdorf	Matrix advocates for and serves the most vulnerable in the metropolitan Detroit community and empowers individuals and families to enhance the quality of their lives and achieve self-sufficiency. Their larger programs include their network of head start facilities and comprehensive community center on the east side of Detroit.
Michigan Environmental Council Tina Reynolds Sandra Turner-Handy	The MI Environmental Council is a coalition of more than 70 organizations created to lead Michigan's environmental movement in achieving positive change through the political process. MEC combines deep environmental policy expertise with close connections to key state and federal decision makers. They promote public policies to ensure Michigan families will enjoy clear waters, clean beaches, beautiful landscapes and healthy communities for years to come.
Neighborhood Service Organization Patricia Verrill LaNeice Jones, LMSW	NSO is a nonprofit human services agency serving Detroit's most vulnerable population. Their programs and services span across the metropolitan area and include: mental health support, developmental disability services, health and wellness programs, housing, early childhood education, workforce development and crisis intervention.
Physicians for Social Responsibility, WSU Chapter Blake Sanford	PSR has been working for 50+ years to create a healthy, just and peaceful world for present and future generations. They advocate on issues and addressing dangers that threaten communities. The campus chapter is comprised of current WSU MD students.
Southwest Detroit Environmental Vision Kathy Stott	SDEV is a nonprofit organization dedicated to improving the environment and strengthening the economy of Southwest Detroit. They work with residents, community organizations, government agencies, schools, businesses and industry to combat environmental issues, including indoor/outdoor air quality, blight, illegal dumping, and incompatible land use.
Urban Development Corporation Vanessa Peake	UDC's mission is to improve the quality of life and bring about positive lifestyle changing experiences of low to moderate income families who live in urban communities. UDC develops activities and program which promote safe, free, healthy, clean, beautiful and enjoyable environments. Programming includes home rehabilitation, neighborhood cleanups and small business promotion. They work particularly in Detroit's District 3.

Village of Oakman Manor	The Village of Oakman Manor is a senior living community in north-central Detroit. They are a part of the Presbyterian Villages of Michigan network.
Deborah Beard	
Dell Stubblefield	
Wayne Children's Healthcare Access Program	WCHAP is a nonprofit organization that works with physicians, Medicaid Health Plans, parents and other community agencies committed to improving the healthcare outcome of Wayne County and Detroit's children. They provide health education to families, help doctors improve the quality of their care, and act as a voice for issues affecting children's health.
Carol Oleksiak	

Community Advisory Board Environmental Health Concerns

Some environmental health concerns that have been expressed by some our Community Advisory Board members are provided below. Researchers who would be interested in developing an application addressing any of these concerns in coordination with a Community Advisory Board member are encouraged to contact CURES COEC Coordinator Brian Smith: E-mail: brian.smith9@wayne.edu; Phone: 313-577-5045

Community Organization and Contact	Environmental Health Concerns
City of Detroit Health Department Kim Rustem	<ul style="list-style-type: none"> • Healthy food access • Food policy challenges/opportunities; nutrition • Asthma • SOx/NOx/PM emissions • Lead and water • Mobility (walkability, bikeability, reliable public transportation) • Green workforce development • Environmental stressors and violence prevention/mental health • Improving recreational opportunities to improve chronic disease
Michigan Environmental Council Tina Reynolds	<ul style="list-style-type: none"> • Lead's impact on older adults • Drinking water. Is our water safe? What are we exposed to in our drinking water including by-products of disinfectants and what are the risks? Do filters help or do they expose us to increased chance of bacteria? • Rental Housing and its impact on health
Southwest Detroit Environmental Vision Kathy Stott	<ul style="list-style-type: none"> • Air quality/cumulative impacts in Southwest Detroit • Environmental justice
Village of Oakman Manor Deborah Beard	<ul style="list-style-type: none"> • Environmental influence on violence • Neighborhood and built environment • Social and community context; economic stability
Asthma & Allergy Foundation of America, Michigan Chapter Kathleen Slonager	<ul style="list-style-type: none"> • Pervasive feeling of helplessness among people who live in areas where the environment is toxic and causing or exacerbating chronic diseases like asthma • Lack of attention to health first when policy is drafted and passed • How our government sets regulations and how well they are enforced
CLEARCorps Detroit Mary Sue Schottenfels	<ul style="list-style-type: none"> • Lead poisoning prevention and asthma mitigation. Both of these areas have devastating impact on the health and well-being of Detroit and Detroit-area children.
Matrix Human Services Salina Ali	<ul style="list-style-type: none"> • Asthma – biggest growing issue among our Early and Head Start children • Recreation – lack of green space for children to exercise and play in city areas
Physicians for Social Responsibility Blake Sanford	<ul style="list-style-type: none"> • Cumulative, long-term impacts of air pollution on health

Green Door Initiative Donele Wilkins	<ul style="list-style-type: none"> • Citizen Science – building community capacity • Documenting variety of environmental exposure points that are connected to community health outcomes in Detroit
Ecology Center Melissa Cooper Sargent	<ul style="list-style-type: none"> • Health effects of the incinerator • Environmental contamination in water due to US Ecology [hazardous waste processing facility] • Soil remediation for kitchen/vegetable gardens • Air pollution in Southwest Detroit and downriver