

**REQUEST FOR APPLICATIONS**  
**U OF L CENTER FOR INTEGRATIVE ENVIRONMENTAL HEALTH SCIENCE**  
**PILOT PROJECT PROGRAM: COMMUNITY-ENGAGED AWARDS**  
**LETTER OF INTENT DUE DATE 6/26/2020**  
**FULL PROPOSAL DUE DATE 7/20/2020**

Introduction: The UofL Center for Integrative Environmental Health Science (CIEHS) is soliciting applications for pilot projects funded through the recently obtained NIEHS P30 Environmental Health Sciences Core Center grant. The goal of the center is to develop a framework to understand the complexities of and to integrate the interactions between environmental toxicants, life style factors, life stage, genetics and gender and their roles in human health and disease. The CIEHS facilitates research and training focused on: (1) exposure to industrial chemicals present in the urban and rural Kentucky environments (metals, VOCs, PCBs, vinyl chloride, etc.), (2) lifestyle factors (diet, alcohol, socioeconomic stressors, obesity, etc.), and the modifications to response by life stage, genetics and gender in development of chronic adult diseases. The CIEHS is organized into three multi-disciplinary research interest groups (multi-organ toxicology, cancer, and neurodevelopmental toxicology). The Integrated Health Science Facility Core (IHSFC) promotes translation of basic science including assistance with both adult and pediatric clinical trials. The Community Engagement Core (CEC) promotes multi-directional communication between CIEHS investigators and community groups with special focus on rural health care providers and youth groups. CIEHS activities are supported by two facility cores (biostatistics and informatics; and integrated toxicomics and environmental measurements). A major goal for the CIEHS is to enhance the capacity for environmental health research at UofL. A part of this effort is the Pilot Project Program, which will foster novel research pertinent to environmental health in surrounding communities. The Pilot Project Program provides resources supporting new environmental health investigators, collaborations between CIEHS members and established investigators bringing new skill sets to environmental health problems, new avenues of environmental health research by CIEHS members, and community-engaged and community-led research in collaboration with CIEHS members. This document provides a description of pilot project awards focused on community-engaged research.

Description of Community-Engaged Awards: Pilot project funds for community-engaged research are available for the upcoming budget period of the P30 award, which is expected to be funded with a start date of 7/1/2020. The due date for pilot project applications in response to this RFA is 7/20/2020. Applications will be reviewed and awards made as soon as possible with an anticipated start date of 9/1/2020. The project period will be for one year from date of award with the possibility of an additional 1-year no-cost extension based on satisfactory progress. A maximum budget of \$20,000 direct costs may be requested for the community-engaged award mechanism. Awardees will be required to sign an award notice committing to the terms of the award, including required post-award reporting and participation in a CIEHS session at Research!Louisville. The P30 center grant will fund multiple types of pilot projects. This RFA solicits applications for community-engaged awards as described below. A separate RFA for other types of pilot projects is being released in parallel; investigators with expertise in community-engaged research may also be eligible to participate in collaborative projects under the Interdisciplinary and New Direction pilot project categories described there.

An overall goal of the CIEHS is to promote community engagement and community-led citizen-science research. To foster activity toward this goal, the Pilot Project Program will commit to funding projects with community-focused objectives. The research for this type of award must involve interaction with community members within the geographic focus area of P30 Center ("Louisville Regional Community," encompassing Kentuckiana and western Kentucky) and must impact an environmental problem of local or regional significance. Eligible applicants are UofL faculty members, faculty of other universities within the geographic focus area, public health professionals, and community members. Applicants from outside UofL are expected to designate a CIEHS member as collaborator. All applicants will be encouraged to utilize Facility Cores. Projects related to the overall CIEHS theme investigating interactions between pollutant exposures and lifestyle factors are encouraged. Community-engaged research fits within many of the goals articulated in the NIEHS

strategic plan (<https://www.niehs.nih.gov/about/strategicplan/index.cfm>), including understanding in community populations environmental exposures, gene-environment interactions, environmental co-exposures, and connection of exposures with health outcomes; outreach, communication, and engagement, including multidirectional communication between researchers and community stakeholders; environmental health disparities and environmental justice; evidence-based prevention and intervention; and integrating data from research findings to inform/impact public health.

**Letter of Intent:** A letter of intent with due date 6/26/2020 is requested for each application. Letters of intent are requested to assist with 1) ensuring that projects are appropriate for the program before applicants invest effort in preparing a full proposal; 2) planning the review of applications; and 3) organizing interactions between the CIEHS and potential applicants during the application preparation period. Letters of intent should include the names of the principal investigator and key personnel, the title of the project, and a brief summary of the proposed work. Letters of intent should be submitted by email to Dr. Gary Hoyle (Gary.Hoyle@louisville.edu).

**Proposal Format:** Applications for community-engaged pilot projects will contain the following elements: Cover Page, Abstract, Specific Aims, Research Strategy, Bibliography and References Cited, Detailed Budget, Budget Justification, Biographical Sketches.

**Cover Page-** Complete the cover page form distributed with the RFA.

**Abstract-** Provide a succinct description of the project including its relevance to environmental health science (limit: 400 words).

**Specific Aim(s)-** Describe the overall goal of the project and the specific aim(s) that will be accomplished to achieve the goal (limit: 1 page).

**Research Strategy-** Describe the research strategy for the project in the format of a NIH R03 application (limit 6 pages). Include Significance, Innovation, and Approach sections. In the Significance section, include a description of how the project relates to environmental health science and how it will further the goals of the CIEHS (see Introduction above and CIEHS website <https://louisville.edu/ciehs/about-us>) and/or the NIEHS strategic plan (<https://www.niehs.nih.gov/about/strategicplan/index.cfm>). Also in the Significance section, if applicable, describe how the proposed research fits within one or more of the CIEHS Research Interest Groups (RIG) (Multi-Organ Toxicity, Cancer, and Neurodevelopmental Toxicology) (<https://louisville.edu/ciehs/groups>). The Approach section should include a description of how CIEHS core facilities will be used in the proposed research if applicable.

**Bibliography and References Cited-** No defined page limit.

**Detailed Budget-** Provide budget information for the project period (9/1/2020-8/31/2021) on NIH Form Page 4 (Detailed Budget for Initial Budget Period <https://grants.nih.gov/grants/funding/phs398/phs398.html>). A maximum of \$20,000 in direct costs may be requested. The following costs will be allowable for pilot projects: supplies, core facility user fees, animal per diems, costs for human subjects research, publication costs, and salary/benefits for students, trainees, and technical personnel. Travel, major equipment, and faculty salaries are not allowed. List and provide amount of effort for all personnel, including faculty. Provide salary/benefits information for students, trainees, and technical personnel; omit information for faculty salaries, as these are not allowed. Split out costs for each CIEHS core facility and list under Other Expenses. Applicants may consult with core facility directors (see contact list at end of document) during the application process to discuss capabilities and costs.

**Budget Justification-** Justify expenses and provide additional detail as needed to clarify how the requested funds will be spent.

*Biographical sketches*- Provide NIH-style biosketches (<https://grants.nih.gov/grants/forms/biosketch.htm>) for all key personnel.

*Letters of Support*- Letters of support may be included if applicable to assist with establishing feasibility of the project.

Review Process: An administrative review of pilot project applications will be performed, and those that meet the requirements specified in the RFA will be reviewed for scientific merit and programmatic relevance. Each application will be assigned to two external reviewers and will be scored for scientific merit on the 9-point NIH rating scale ([https://grants.nih.gov/grants/policy/review/rev\\_prep/scoring.htm](https://grants.nih.gov/grants/policy/review/rev_prep/scoring.htm)). NIH review criteria of Significance, Investigator, Innovation, Approach, and Environment will be scored (<https://grants.nih.gov/grants/peer/critiques/rpg.htm>), and an overall impact score will be given. Programmatic review will be performed by an internal CIEHS committee to rate applications regarding the extent to which the proposed research 1) complements existing environmental health research ongoing within the CIEHS (i.e. aligns with one or more research interest groups); 2) contributes to the overall goals of the CIEHS (<https://louisville.edu/ciehs/about-us>) or the NIEHS strategic plan (<https://www.niehs.nih.gov/about/strategicplan/index.cfm>) (examples: foster collaborative research in current and new environmental health science areas, promote translation of science findings into knowledge to inform health outcomes, recruit new and established investigators to environmental health science research, promote community-based research); and 3) utilizes CIEHS core facilities.

#### Post-Award Administration of Pilot Projects:

*Reporting*- Awardees will be required to submit 6-month progress reports during the project period and the subsequent year, and annual reports for the following 3 years. The 6-month reports will contain a brief summary of scientific progress, spending, core facility usage, CIEHS collaborations, presentations, publications, community impact, data sharing, grant applications submitted, and grants awarded. The subsequent annual reports will contain information on presentations, publications, community impact, grant applications submitted, and grants awarded. The information gathered in this way will be used to measure success of the program, which will be necessary for a renewal of the P30 center.

*Research!Louisville Symposium*- Pilot project awardees agree to participate in a CIEHS symposium as part of Research!Louisville.

#### Program Contacts

For general information about the CIEHS Pilot Project Program and the application process, contact:

Gary Hoyle, PhD  
Director, Pilot Project Program  
Gary.Hoyle@louisville.edu  
502-852-7338/502-852-3290

For information related to community-engaged research, contact:

Luz Huntington-Moskos, PhD, RN, CPN  
Director, Community Engagement Core  
luz.huntingtonmoskos@louisville.edu

Other P30 Center cores:

Integrated Health Science Facility Core (IHSFC)  
Matthew Cave, MD

m0cave01@louisville.edu

Biostatistics and Informatics Facility Core (BIFC)

Shesh Rai, PhD

shesh.rai@louisville.edu

Integrated Toxicomics and Environmental Measurements Facility Core (ITEMFC)

Michael Merchant, PhD

michael.merchant@louisville.edu

## APPENDIX GUIDANCE ON APPLICATION FORMAT APPLICATION FORMS

The following guidance is provided for applicants unfamiliar with the NIH grant application format.

Overall Format: The overall format of the application is similar to a type of NIH grant called R03, which is for a project of limited scope that can be completed in 1-2 years. The pilot project applications solicited through this RFA require only certain elements from an NIH application; only complete and submit those elements specifically listed in the "Proposal Format" section of the body of the RFA.

Specific Aims section (limit 1 page): Specific aims are the activities that will be performed to accomplish the objective(s) of the project. Larger projects typically have multiple specific aims, whereas pilot projects such as solicited here can have one specific aim or multiple specific aims, depending on whether the project will be broken down into different types of activities. The Specific Aims section provides an overall summary of the project in somewhat more detail than the Abstract. From the Specific Aims section a reader should have a general idea of the scientific or health problem that will be addressed in the study, the overall objective of the study, and the activities that will be conducted over the course of the project to accomplish the objectives. Start the Specific Aims section with a few sentences describing the background of the scientific or health problem to be studied, relevant information known about the problem, and any knowledge gaps that could be addressed by the proposed activities. Next provide a description of the objective(s) of the project. If a scientific hypothesis will be tested, state that as well. Next list the specific aim(s), and for each, provide a concise description of what will be done including what types of data will be collected. Conclude the Specific Aims section with a brief description of what impact accomplishing the specific aim(s) will have on the scientific or health problem being investigated.

Research Strategy (limit 6 pages): The Research Strategy section describes in detail a rationale for the project and how it will be conducted. The Research Strategy section contains the following sections: Significance, Innovation, and Approach. The following are typical lengths for the individual sections, although there are no defined limits: Significance 1-1.5 pages; Innovation 0.5 page; Approach 4-4.5 pages. In the Significance section, provide a description of the background of the problem, why it is important, any barriers to progress or knowledge gaps that will be addressed through the proposed work, and the nature of the impact that successful accomplishment of the project will have on the problem being investigated and the community involved. In the Innovation section, describe novel aspects of the project, how it is different from work that has been done previously, and any innovative aspects of the methodology or the overall approach. In the Approach section, describe the activities that will be conducted in the course of the project, including methodology, experimental design, feasibility of the project, measurements and data collection, and analysis and interpretation of data. If applicable, describe any preliminary studies or data available to support the rationale for and feasibility of the project. Describe any potential problems or difficulties that may arise, and discuss alternative approaches that may be adopted if these occur.

Bibliography and References Cited (no defined page limit): References should be cited within the text (either by number or author name) of the Specific Aims and Research Strategy sections followed by a single bibliography with a list of the full references after the Research Strategy section.

Biographical sketches: Include an NIH-style biosketch (<https://grants.nih.gov/grants/forms/biosketch.htm>) for each individual on the project listed as key personnel. Key personnel are individuals with specialized expertise who are integral to the performance of the project. The biosketch serves to highlight accomplishments and qualifications of key personnel and assists reviewers with assessing the ability of the investigators to accomplish the proposed work. Note for planning purposes that changes to key personnel (either substitution or elimination) after an award is made will require approval from the CIEHS. Complete the top portion of

the form as indicated with name, position title, and educational training. In Part A, provide a personal statement describing the qualifications and experience the individual brings to the project and how they are well suited to their role on the project. In Part B, list employment positions with experience relevant to the application as well as any honors received. In Part C, describe up to five of the individual's most important contributions to science. Up to four publications authored by the individual may be listed for each contribution. For individuals providing expertise related to community organization, leadership, or engagement, describe contributions in these areas in lieu of contributions to science. In Part D, provide information on any additional research support for each individual.

Letters of Support: Provide letters of support from any collaborators, community leaders, or community organizations whose contributions will be necessary for completing the project.

Additional more detailed information may be found here:

<https://grants.nih.gov/grants/funding/phs398/phs398.pdf>



## BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.  
Follow this format for each person. **DO NOT EXCEED FIVE PAGES.**

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NAME:

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POSITION TITLE:

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EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	Completion Date MM/YYYY	FIELD OF STUDY

**A. Personal Statement**

**B. Positions and Honors**

**C. Contributions to Science or Community Leadership, Organization, and Engagement**

**D. Research Support**