

Climate & Health Pilot Research Program

An initiative of the
UK Center for the Environment
with generous funding support by:



Tracy Farmer Institute
for Sustainability
and the Environment

TRANSFORMING TOMORROW

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University of
Kentucky®

**Center for Appalachian Research
in Environmental Sciences**

**Climate and Health
Pilot Research Program RFA 2021**

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Introduction

NIH is developing a climate change research agenda. From their recent Request for Information: Climate Change and Health <https://grants.nih.gov/grants/guide/notice-files/NOT-ES-21-009.html>

“Climate change poses substantial threats to human health across the lifespan. These threats influence diverse health concerns including communicable and non-communicable diseases, injuries, hazardous exposures, mental health, and death. Observational and modeling studies have identified impacts on and threats to health and well-being that are immediate (e.g., extreme weather events such as hurricanes, heat waves, floods and droughts) as well as resulting from more gradual changes in climate (e.g., rising sea levels, shifts in rainfall and humidity). In the United States and globally, structural racism and discrimination place communities of color, under-resourced, health disparity populations, and other historically disadvantaged communities at higher risk from health impacts of climate change.”

“Health consequences of climate change may be direct (e.g., heat stress, death) or indirect (e.g., infectious diseases or conditions associated with pollution) effects, and may occur due to actions taken to mitigate (e.g., changes in energy systems) and adapt (changes in the built environment) to climate change. Understanding the health implications – including potential health benefits -- of actions to prevent, mitigate, and adapt to climate change offers opportunities to improve the social and environmental determinants of health, especially for at-risk communities.”

NIH has identified six priority areas:

- I. Innovative Research that Addresses Climate Change and Human Health*
- II. Scientific Infrastructure to Address Human Health and Climate Change*
- III. Research and Community Partnerships to Address Environmental Injustice and Foster Resilience*
- IV. Rapid Research Response Capacity to Address Human Health and Climate Change*
- V. Diverse Workforce to Address Human Health and Climate Change*
- VI. Translation and Dissemination of Research Findings and Health Protective Strategies*

This RFA is specifically looking for multidisciplinary research teams to develop innovative approaches to address these areas. The ultimate goal of this pilot funding is to enable the development of preliminary data needed to support of NIH-level applications.

Funding for this RFA is provided jointly by the Tracy Farmer Institute for Sustainability and the Environment (TFISE) and the University of Kentucky Center for Appalachian Research in Environmental Sciences (UK-CARES).

Award Description

Two types of awards are being solicited: High-Impact and Mini-Grants.

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High Impact Award. High impact proposals may request up to \$50,000. A High Impact award will be funded by the Tracy Farmer Institute for Sustainability and the Environment (TFISE). Funds must be spent by June 30, 2022.

Mini-Grants. Mini-grant proposals may request up to \$10,000. Mini-Grants will be funded by UK-CARES. Funds must be spent by March 31, 2022.

Because of the short duration of these proposals, the required documentation such as IRB, IACUC, etc., needs to be in place at the time of submission. **This mechanism will not fund clinical trials** ([NIH definition](#)).

Required Documents

- Abstract/Project Summary (30 line limit)
- Short research description up to **5 pages for High Impact projects and 2 pages for Mini-grant projects** including Significance, Innovation, Approach as described below.
- References
- IRB/IACUC approval letter(s) must be in place for the Mini-Grant and is highly recommended for the High Impact Award.
- NIH biosketch for faculty listed as study personnel
- Budget and budget justification
 - The use of the following form is REQUIRED: PHS 398 Form Page 4 "Detailed Budget for the Initial Period" found [here](#):

Significance

- Explain the importance of the problem or critical barrier to address the impacts of climate change on the environment and ultimately human health.
- Explain how the proposed project will improve scientific knowledge of climate change, impact on the health of those living in Kentucky, and/or advancement or development of technical sensor development or capability.
- Include information on Preliminary Studies. Discuss the PI's or co-Is preliminary studies, data, and/or experience pertinent to this application.

Innovation

- Include the strength of the research team and how expertise is innovatively being applied to climate and health.
- State how the project will advance the field of climate and health
- Explain how the project challenges and seeks to shift current research
- Describe proposed theoretical concepts, approaches or methodologies, instrumentation, or interventions that: a) are novel and have advantage over status quo, or b) will be refined, improved, or applied in new and important ways.

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Approach

- Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted as well as any resource sharing plans as appropriate.
- Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims.
- Address how the completion of the pilot will lead to the submission of extramural grant applications, such as an NIH R21 or R01.

Award Priorities

The two main priorities for funding are to: 1) develop teams of multidisciplinary researchers to address highly relevant issues related to the impacts of climate change on human health; and 2) generate preliminary data needed to develop strong extramural research grants.

Proposals will be reviewed for the following criteria:

- Address at least one of the NIH six priorities
- Significance of the research on climate change and health
- Scientific rigor and novelty of the proposed approach
- Innovation
- Experience and productivity of the multidisciplinary research team.
- Likelihood of extramural proposal submission by the team within 6 months of the end of the award.

Key Dates

- RFA Release Date: September 17, 2021
- Applications Due: October 11, 2021
- Project Start Date: No later than one (1) month from receipt of the Notice of Award.
NOTE: If you do not have an approved IRB/IACUC, the start date could be delayed.
- Project Completion Date:
 - High Impact: June 30, 2022
 - Mini-Grants: March 31, 2022

Funding Details

High Impact awards will be supported by the TFISE. High Impact budget proposals should include direct costs only. Sufficient justification and detail should be provided to validate all costs.

Mini-Grants will be supported by UK-CARES. Mini-grants must require a portion of salary and fringe benefit costs for faculty and staff conducting the project. (NOTE: A minimum of one (1%) effort for PI effort on the project is required.) Sufficient justification and detail should be provided to validate all costs. If identified for funding, an eIAF must be routed from the PI's home department before the award can be made.

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Allowable Direct Costs

- Material and supply costs associated with the analysis existing biological samples or environmental sampling with existing populations.
- Travel funds needed for study execution are allowed, if essential.

Non-Allowable Costs

- Costs associated with clinical trials (inpatient, outpatient, research subject compensation, etc.).
- Other costs deemed non-allowable per federal guidelines.

End of Project Requirements

Successful applicants agree to complete the project requirements as a condition of funding:

- 1) Provide an end-of-project progress report
- 2) Share the outcomes of the project in either poster or oral presentation format for the John P. Wyatt Environment & Health Symposium on April 22, 2022, and at a national or international meeting (e.g., International Society for Exposure Science, American Geological Union, International Society for Environmental Epidemiology)
- 3) Funded projects will also be required to present ongoing findings to the Center for the Environment Executive Committee and other Internal or External Advisory Board meetings.

Questions

For questions regarding this funding opportunity, contact:

Joel Thompson, PhD, CCTS Research Development Director & Pilot Funding Project Manager

Please submit your application using the following application link:

<https://redcap.uky.edu/redcap/surveys/?s=4J7N3PJR7AAFA3FD>

Required Documents Checklist

Before submitting your proposal online, please ensure all required documents listed below are **combined into a single PDF** in the following order:

- Abstract/Project Summary (30 line limit)
- Short research description (**5-page maximum for High Impact projects and 2-page maximum for Mini-Grant projects**)
- IRB/IACUC approval letter
- PI, Co-PI, Study Personnel Biosketch
- Budget (use [NIH template PHS 398](#))
- Budget Justification
- Appendix (references)

The format of the application should follow the NIH guidelines outlined below:

- Margins must be no smaller than 0.5" at all points.

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- 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.
- ***Each page*** should provide the applicant's name in the upper right hand corner.