

Opportunity Title: EPA Air Pollution Modifiers and Health Outcomes Fellowship

Opportunity Reference Code: EPA-ORD-CPHEA-PHESD-2020-05-A

Organization U.S. Environmental Protection Agency (EPA)

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A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. Click [here](#) for detailed information about acceptable transcripts.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations. Click [here](#) for detailed information about recommendations.

All documents must be in English or include an official English translation.

Application Deadline 3/1/2021 3:00:00 PM Eastern Time Zone

Description ***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click [here](#) for information about the selection process.

EPA Office/Lab and Location: Three research opportunities are available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Public Health Environmental Assessment (CPHEA), Public Health and Environmental Systems Division (PHESD), Epidemiology Branch located in Chapel Hill, North Carolina.

Research Project: This research opportunity aims to connect environmental exposures to human health, with a focus on air pollution, ecosystem goods and services, and factors that interact with these, with the goal of better informing decision makers for policy and public health practice. Researchers are using birth records, electronic health records, and existing cohort studies to investigate associations between air pollutants (e.g., particulate matter mass and components, ozone, and nitrogen dioxide) and health outcomes (e.g., birth weight, preterm birth, birth defects, cardiometabolic outcomes, diabetes, cardiovascular outcomes, asthma, allergies, and respiratory outcomes, among others), modifiers of those associations, and associations specifically in vulnerable or susceptible population. Researchers are also engaged in linking ecosystems goods and services and human health through systematic reviews of Beneficial Use Impairments in the Great Lakes Areas of Concern, and through exploration of site revitalization through a natural experiment lens.

The research participant will have the opportunity to collaborate with the EPA Principle Investigator and a team of colleagues on projects focusing on examining modifiers of air pollution and health outcome associations, and



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projects examining the health impacts of improvements to ecosystems goods and services. The research participant may explore linkages between a variety of human health outcomes and environmental exposures, including developing relevant study designs, choosing outcomes of interest, and identifying data which their studies can be carried out. With guidance from the mentor, the research participant may be involved in any or all of the following training activities: 1) participating in systematic reviews and conducting meta-analyses; 2) developing criteria for and conducting risk of bias analyses, 3) conducting data analysis, documenting statistical code and interpretation of results; 4) conducting and documenting quality assurance and review of data analysis and databases; 5) participating in report preparation, presentation and summaries of the data; 6) presenting at professional meetings data analyses; and 7) collaborating in authoring manuscripts.

Learning Objectives: Research projects may focus on the following general areas where the research participant will: learn best practices for systematic reviews and risk of bias analyses; gain hands-on experience with complex and interacting environmental exposures; gain skills in data management and manipulation with moderate to large databases; learn use of air modeling output data in health outcomes research; practice in presenting scientific work in different formats; and develop their own study ideas and plans within the environmental epidemiology framework.

Mentor(s): The mentor for this opportunity is Kristen Rappazzo (rappazzo.kristen@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: **Spring 2021.** All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed up to four additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is part-time (20 hours per week).

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click [here](#) for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is

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required for participation in this program. Health insurance can be obtained through ORISE.

Questions: Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email EPArpp@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing a doctoral degree in one of the relevant fields.

Preferred skills:

- Knowledge of epidemiological analysis techniques (e.g., regression, causal inference methods), and environmental or social exposures
- Statistical programming language such as SAS or R
- Experience with epidemiology studies and study design

- Eligibility Requirements**
- **Degree:** Currently pursuing a Doctoral Degree.
 - **Discipline(s):**
 - **Environmental and Marine Sciences** ([2](#) 👁)
 - **Life Health and Medical Sciences** ([4](#) 👁)
 - **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).