Opportunity Title: EPA Environmental Risk and Health Outcomes Fellowship
Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2020-01

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-ORD-CPHEA-PHITD-2020-01
How to Apply	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	9/30/2020 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: A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Public Health Environmental Assessment (CPHEA), Public Health and Integrated Toxicology Division (PHITD) located in Chapel Hill, North Carolina.

Research Project: The Ward-Caviness lab at the Clinical Research Branch is devoted to an intimate understanding of the link between environmental exposures and disease as well as the underlying molecular mechanisms that may mediate exposure-related effects and/or increase exposure sensitivity.

There is a research training opportunity available in this lab for a motivated postdoc with broad, cross-disciplinary interests. The research participant would primarily be involved with the analysis of electronic medical records extracted from a large electronic health record database. The research participant will have the opportunity to be involved in the analysis of vital data, hospitalizations, and disease development as reflected in the electronic medical record and the linkage of this data to environmental exposures to determine the environmental determinants of health and wellness. This research project also entails understanding various clinical and social factors which may mediate or modify any associations from including medications, the built environment, and social determinants of health.

Learning Objectives: Over the course of this project, techniques from environmental epidemiology, biostatistics, and bioinformatics will be learned and executed. There is significant opportunity in this project to develop independent domains of research based on interests and results of initial analyses.
In addition to this research project, there are also projects involving the investigation of the effects of air pollution exposures on the epigenome

(DNA methylation) and transcriptome. These high dimensional 'omics projects offer an opportunity to integrate a variety disciplines to understand the molecular mechanisms underlying environmental health, and will aid in the development of bioinformatics and computational biology expertise.

Mentor(s): The mentor for this opportunity is Cavin Ward-Caviness (ward-caviness.cavin@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: October 2020. 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 three additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

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 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 have received a doctoral degree in one of the relevant fields, or be currently pursuing the degree and will reach completion by October 2020. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Experience creating and executing study designs for epidemiology studies, including mixed/heirarchical models and survival models
- Strong experience in R
- Experience cleaning and manipulating large health datasets
- Experience in selecting appropriate statistical models for a task and interpreting the results of such models
- Familiarity with high-dimensional analyses, penalized regression, and dimension reduction techniques
- Excellent writing and presentation skills

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 10/31/2020 11:59:00 PM.

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- **Discipline(s):**
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (4 👁)
  - **Mathematics and Statistics** (1 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).