**Opportunity Title:** EPA Postdoctoral Fellowship on Using Novel Big Data Resources to Understand Toxic Emissions in Urban Settings
**Opportunity Reference Code:** EPA-ORD-CPHEA-PHITD-2024-04

| | |
|---:|---|
| **Organization** | U.S. Environmental Protection Agency (EPA) |
| **Reference Code** | EPA-ORD-CPHEA-PHITD-2024-04 |
| **How to Apply** | ***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond! |

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.

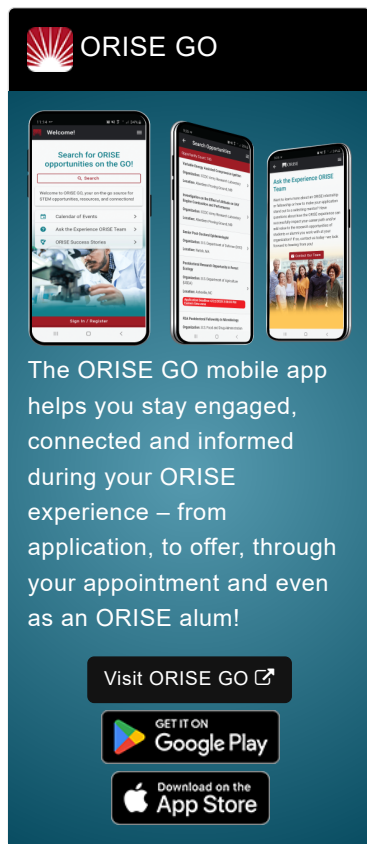| | |
|---:|---|
| **Application Deadline** | 7/19/2024 3:00:00 PM Eastern Time Zone |
| **Description** | **\*Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click here for information about the selection process. |

**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 and Environmental Assessment (CPHEA), Public Health & Integrated Toxicology Division (PHITD) in Research Triangle Park, North Carolina.

**Research Project:** This research project seeks to use informatics approaches to evaluate the health effects associated with toxic emissions in urban settings. This research project will center around the use of electronic health records to understand environmental health risks tied to toxic emissions, particularly those emerging from underground storage tanks which are often found in urban settings but have not been well studied. While this research project will focus on application of data science approaches for analyzing electronic health records there will be opportunities for gaining experience in exposure science, molecular epidemiology, and community-based research practices.

Under the guidance of a mentor, research activities may include:

- Performing epidemiologic and computational analyses within the R programming language
- Designing and executing an epidemiological study using electronic health records
- Performing spatial analyses within R
- Learning how to efficiently manage large datasets
- Analyzing health effects associated with environmental exposures ranging from air pollution to underground storage tanks

**Opportunity Title:** EPA Postdoctoral Fellowship on Using Novel Big Data Resources to Understand Toxic Emissions in Urban Settings
**Opportunity Reference Code:** EPA-ORD-CPHEA-PHITD-2024-04

**Learning Objectives:** The participant will learn to use novel big data sources and data science approaches to better understand environmental health effects, particularly for vulnerable and understudied communities.

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

**Anticipated Appointment Start Date: Spring/Summer/Fall 2024.** 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 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.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

**Questions:** Please see the FAQ section of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

**Qualifications** The qualified candidate should have received a doctoral or master's degree in one of the relevant fields,or be currently pursuing the degree with completion before the appointment start date. Degree must have been received within five years of the appointment start date.

Preferred skills/experience:
- Knowledge of epidemiology and statistics
- Experience in analyzing environmental risks associated with health outcomes using data from cohort studies
- Experience with data extraction and data manipulation, preferably using SQL
- Experience in exposure assessment
- Knowledge of GIS

**Opportunity Title:** EPA Postdoctoral Fellowship on Using Novel Big Data Resources to Understand Toxic Emissions in Urban Settings
**Opportunity Reference Code:** EPA-ORD-CPHEA-PHITD-2024-04

|  |  |
|---|---|
| **Eligibility Requirements** | - **Citizenship:** U.S. Citizen Only |
|  | - **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing. |
|  | - **Discipline(s):** |

- **Discipline(s):**
  - **Chemistry and Materials Sciences** (1 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (3 👁)
  - **Engineering** (2 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (13 👁)
  - **Mathematics and Statistics** (11 👁)
  - **Other Non-Science & Engineering** (1 👁)
  - **Physics** (16 👁)
  - **Social and Behavioral Sciences** (6 👁)