

Opportunity Title: EPA Fellowship on Characterizing the Health Effects of Environmental Exposures to PFAS

Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2022-09

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 6/9/2023 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 research participant will collaborate in research related to identification of per- and poly-fluoroalkyl substances (PFAS) source signatures and the associated health effects to provide regional and national level estimates of the health burden derived from exposure to PFAS. The assessment study will examine the distribution of exposure and health burden with respect to community characteristics and identify high priority area for sampling. The spatial distribution of source signatures will be examined with respect to socio-demographic profiles of communities to assess equity of exposure and other measure of environmental justice. Environmental exposures will be linked to health outcome data selected from several Health Informatics Platforms including Electronic Health Records and Cancer registries.

Environmental exposures are often determined using large databases, model predictions, remote sensing data or similar



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methods. The research participant may have an interest in and ability to engage with utilization of large datasets. This research project presents a unique opportunity to interact with researchers at the leading edge of the fields that will drive the future of environmental health for years to come.

Learning Objectives: The research participant will have the opportunity to be part of a multidisciplinary team of investigators that are developing community-based indicators of vulnerability to a changing environment. Research activities may include:

- Conducting data analysis, documenting statistical code and interpretation of results.
- Conducting and documenting quality assurance and review of data analysis and databases.
- Preparing reports, presentations and summaries of the data.
- Presenting results at professional meetings.
- Publication of results.

Mentor(s): The mentor for this opportunity is Dr. Ana Rappold (rappold.ana@epa.gov). If you have any questions about the research, please contact the mentor.

Anticipated Appointment Start Date: February 1, 2023. 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).

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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 master's or doctoral degree in one of the relevant fields (e.g. Computer Science, Data Analytics, Biostatistics, Statistics, Epidemiology, Economics, Environmental Health Sciences, Environmental Engineering, Physics), or be currently pursuing one of the degrees with completion before April 7, 2023. Most recent degree must have been received within the past five years.

Preferred skills/experience:

- Knowledge of regression techniques, including random effects models and hierarchical models, epidemiological methods and causal inference, artificial intelligence and machine learning techniques, as well as experience managing and analyzing large data.
- Programing experience with R, Python or Julia.
- Interest or experience in risk communication and health policy are desirable but not required.
- Knowledge or previous experience with, air monitoring data, health outcome data, and epidemiological study designs are desirable but not required.
- At least one publication in a peer reviewed journal.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 4/7/2023 11:59:00 PM.
- **Discipline(s):**
 - **Computer, Information, and Data Sciences** (17 )
 - **Engineering** (1 )
 - **Environmental and Marine Sciences** (1 )
 - **Life Health and Medical Sciences** (5 )
 - **Mathematics and Statistics** (4 )
 - **Other Non-Science & Engineering** (1 )
 - **Social and Behavioral Sciences** (4 )