Opportunity Title: EPA Fellowship on Application of Non-Targeted Analysis of PFAS in Biota
Opportunity Reference Code: EPA-ORD-CEMM-ACESD-2024-01A

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CEMM-ACESD-2024-01A

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 11/22/2024 11:59:00 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 training opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Measurement and Modeling (CEMM), Atlantic Coastal Environmental Sciences Division (ACESD) located in Narragansett, Rhode Island.

Research Project: Non-targeted analysis (NTA) has been increasingly used in recent years to elucidate structures of novel per- and polyfluoroalkyl substances (PFAS), however, the majority of PFAS NTA studies have applied this technology in water or soil matrices. NTA in biota is complicated by the presence of endogenous chemicals that may interfere with identification of environmental contaminants like PFAS. NTA workflows in biota need to be further developed, tested, and applied in order to be widely adopted and used in decision making.

The goal of the research project is to apply PFAS NTA techniques in biological samples of interest to state and regional partners to identify chemicals of interest and produce data processing workflows optimized for PFAS NTA in biota.

Learning Objectives: Under the guidance of a mentor, the research activities will include, but not limited to:

- Exploring the usefulness of sample preparation and clean-up on PFAS identification in biological samples.
- Exploring and mastering software workflows used for PFAS NTA (e.g., Compound Discoverer, FluoroMatch, patRoon, etc.).

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- Writing QA/QC procedures and documents and writing programming code (R or other) for processing data output.

Applications of derived workflows will include identification of novel PFAS in biological samples originating near manufacturing facilities and from ambient offshore marine environments to test applicability of workflows across a range of exposure scenarios.

Mentor(s): The mentor for this opportunity is Anna Robuck (robuck.anna@epa.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: **September 3, 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: This 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 degree in one of the relevant fields or be currently pursuing one of the degrees with completion before the appointment start date. Degree must have been received within five years of the anticipated appointment start date

Preferred skills and/or experience:

- Experience running, troubleshooting, and maintaining mass spectrometers, preferably high-resolution mass spectrometers.
- Experience with chromatography (gas or liquid, but experience with

liquid preferred).
- Experience dealing with large datasets, preferably using programming code such as R or Python.
- Experience performing benchtop chemistry including preparation and clean-up of samples for chemical analysis.
- Strong written, oral and electronic communication skills.
- Familiarity with per- and polyfluoroalkyl substances (PFAS).
- R and/or Python programming for data processing and analysis.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 9/3/2024 12:00:00 AM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (7 👁)
  - **Communications and Graphics Design** (1 👁)
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Earth and Geosciences** (3 👁)
  - **Engineering** (3 👁)
  - **Environmental and Marine Sciences** (7 👁)
  - **Life Health and Medical Sciences** (13 👁)
  - **Mathematics and Statistics** (3 👁)
  - **Physics** (2 👁)