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Opportunity Title: EPA Identifying Emerging Contaminants Fellowship
Opportunity Reference Code: EPA-ORD-CESER-WID-2020-04

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CESER-WID-2020-04

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 10/1/2020 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 Environmental Solutions and Emergency Response (CESER), Water Infrastructure Division (WID) located in Cincinnati, Ohio.

Research Project: The research participant will collaborate with EPA team of scientists who are working to prioritize and identify chemicals that humans may be exposed to in environmental waters and fish tissue. Non-targeted analysis and suspect screening are tools that can be used to evaluate chemical exposures, especially when broad scale chemical occurrence information is needed. This research will involve ongoing development of non-targeted analysis workflows, including sample analysis with high resolution mass spectrometry (HRMS) and triple quadrupole mass spectrometry, and data analysis workflow development. Chemicals of interest include pesticides, pharmaceuticals, endocrine disrupting chemicals, and a special emphasis on fluorinated chemicals and their potential transformation/degradation products.

Research activities may include:

- Learning sample preparation methods for water, passive samplers, and fish tissue.
- Learning techniques in high resolution LC/MS methods with Time of Flight (ToF) and Orbitrap instruments.
- Protocol development of data analysis workflows.

- Scientific investigation of the fate and occurrence of chemicals in the water cycle using environmental chemistry and forensic approaches.
- Collaboration of scientific results through publication and presentations.

Learning Objectives:

- Learning a wide range of laboratory techniques, scientific methods, and gain experience with a range of analytical instrumentation.
- Applying creativity and critical thinking skills towards solving complex environmental problems and generate ideas for further investigation.
- Improving communication skills, including written communication skills needed for publishing peer-reviewed scientific literature.

Mentor(s): The mentor for this opportunity is Angela Batt (batt.angela@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: October 1, 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 four 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 be currently pursuing a doctoral degree.

Preferred skills:

- Demonstrated education and/or experience in a chemistry and/or biochemistry laboratory
- Demonstrated education and/or experience generating and testing hypotheses
- Experience with liquid chromatography-mass spectrometry techniques for the analysis of small molecules
- Experience running, troubleshooting, and maintaining mass spectrometers, preferably ToF or

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Orbitrap high resolution mass spectrometers

- Knowledge of sample collection and preparation techniques, including solid phase extraction and liquid-liquid extraction
- Strong written, oral and electronic communication skills

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Doctoral Degree.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (13 👁)
  - **Life Health and Medical Sciences** (4 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).