Opportunity Title: EPA Toxicokinetic PFAS Chemical Assessments Fellowship
Opportunity Reference Code: EPA-ORD-CCTE-GLTED-2020-11

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-ORD-CCTE-GLTED-2020-11
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	8/24/2020 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 Computational Toxicology and Exposure (CCTE), Great Lakes Toxicology & Ecology Division (GLTED) located in Duluth, Minnesota.

Research Project: Per- and polyfluoroalkyl substances (PFAS) are a complex class of thousands of chemicals that are used in a wide variety of commercial products and industrial applications. Given their properties and widespread use, PFAS have become widespread throughout the environment and are highly persistent. While a few select PFAS (e.g., perfluorooctanesulfonate [PFOS]; perfluorooctanoic acid [PFOA]) have been highly studied, there are thousands more PFAS structures for which little fate or effects data exist.

Given the costs and time it would take to characterize thousands of PFAS using traditional animal testing, "new approach methodologies (NAMs)", such as cell-based bioassays, high throughput transcriptomics, and toxicokinetic assays are being used to identify potential biological targets and pathways PFAS may interact with and understand PFAS behavior in biological systems. However, to adequately extrapolate in vitro tests to in

vivo responses, an understanding of the chemical behavior and disposition within in vitro systems is critical.

The research participant will be trained in a variety of analytical chemistry techniques and have the opportunity to learn a range of cell-based and in vitro experimental approaches aimed at characterizing the toxicokinetic behavior of chemicals. This research training opportunity will include a combination of bench lab work and in silico modeling to incorporate experimental data into in vitro partitioning models.

With guidance from the mentor, the research participant may be involved in any or all of the following training activities:

- Applying models to estimate in vitro disposition of test chemicals
- Developing techniques for the collection, processing/extraction, and analysis of small volume/mass samples for PFAS
- Developing and/or adapting methods for high resolution mass spectrometry-based analysis
- Compiling information from the literature and from on-line data sources relevant to analytical methods for PFAS
- Troubleshooting and performing general maintenance on analytical instrumentation
- Use of instrument specific software to evaluate quality of analytical data and calculate concentrations, detection limits, precision, etc. using appropriate analytical standards, surrogates, blanks, spikes, etc.
- Conducting statistical analyses on experimental data using a variety of programs and approaches
- Presenting research results at regional, national, and/or international conferences and workshops
- Contributing to the preparation of peer-reviewed journal articles and disseminating research results to project partners and stakeholders

Learning Objectives: The research participant will become a member of a fast-paced multi-disciplinary research team and will have opportunities to interact with internationally recognized leaders, both within and outside the EPA. The research participant will have the opportunity to contribute to and/or publish original research in this effort and to present research at scientific meetings or during seminars. It is expected that this training opportunity will provide an early career scientist with knowledge, skills, and abilities needed to apply new technologies and associated data to regulatory decision-making at the local, national, and/or international scale.

Mentor(s): The mentor for this opportunity is Brett Blackwell (Blackwell.brett@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

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

Preferred skills:

- Strong written, oral and electronic communication skills, with proficiency in Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook). Experience preparing spreadsheets and PowerPoint presentations; developing and giving oral presentations.
- Advanced course work in analytical and environmental chemistry
- Experience working with analytical instrumentation, including high resolution mass spectrometry
- Familiarity and understanding of chemical fate and partitioning
- Computational skills (e.g., programming, R-based statistics)
- Experience with chemical extraction and sample preparation
- Previous research experience, beyond lab-oriented course work alone
- Familiarity with literature search tools and strategies

Opportunity Title: EPA Toxicokinetic PFAS Chemical Assessments Fellowship
Opportunity Reference Code: EPA-ORD-CCTE-GLTED-2020-11

Eligibility Requirements	- **Citizenship:** U.S. Citizen Only
	- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 9/30/2020 11:59:00 PM.
	- **Discipline(s):**
	○ **Chemistry and Materials Sciences** (7 👁)
	○ **Environmental and Marine Sciences** (2 👁)
	○ **Life Health and Medical Sciences** (12 👁)
	- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).