Opportunity Title: EPA Modeling Inhalation and Disposition of Perfluorinated Alkyl Substances (PFAS)
Opportunity Reference Code: EPA-OLEM-OSRTI-2021-03

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-OLEM-OSRTI-2021-03

How to Apply

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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 9/7/2021 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 U.S. Environmental Protection Agency's (EPA) Office of Land and Emergency Management (OLEM) Office of Superfund Remediation and Technology Innovation (OSRTI), Assessment and Remediation Division (ARD). The appointment will be served with ARD's Science Policy Branch (SPB) located in Arlington, Virginia. Please note that our Arlington offices are scheduled to move to Washington, DC at some point in 2021. Currently, SPB staff are working remotely due to the pandemic.

Research Project: Perfluorinated alkyls (PFAS) are a growing concern for EPA. Human health risk assessments depend on accurate estimates of exposure and as clear an understanding as possible of what exposure levels may be harmful. Reference doses (RfD) based on oral intake exist for some PFAS. However little is currently known about the toxicokinetics of inhaled PFAS. We do not know, for example, what duration and concentration of inhaled PFAS corresponds to concentrations in serum following oral exposure. Answering this question will help EPA and others estimate total serum concentrations (from oral intake and inhalation) rather than relying on information from oral intake data alone. The goal of this project is to build a physiological model that estimates the amount of inhaled PFAS that reaches the blood stream.

Learning Objectives: Through this project, the participant will have the opportunity to: expand their understanding of how inhaled chemicals move through the body and partition to different physiological compartments. It will also provide an opportunity for the participant to learn about route-to-route extrapolations, modeling, human health and chemical risk assessments and learn about the functions and roles of EPA scientists.

Mentor(s): The mentor for this opportunity is Andrea Kirk (kirk.andrea@epa.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: Fall 2021. 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 three to four additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: The appointment is full-time.

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Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click **here** for detailed information about full-time stipends. **A travel allowance of $2,500 will also be provided for the participant to travel to scientific meetings or conferences.**

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).

Questions: Please see the FAQ section of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.REG@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, or be currently pursuing one of the degrees with completion by the appointment start date. Degree must have been received within five years of the appointment start date.

Preferred skills/experience:

- Previous experience in physiological modeling, physiologically-based pharmacokinetic modeling and/or physiology
- Experience with programming, statistics, modeling, flowchart development and Excel

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 8/31/2021 11:59:00 PM.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (17)
  - **Earth and Geosciences** (20)
  - **Engineering** (27)
  - **Environmental and Marine Sciences** (2)
  - **Life Health and Medical Sciences** (47)
  - **Mathematics and Statistics** (10)
  - **Other Non-S&E** (1)
  - **Other Physical Sciences** (12)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).