Opportunity Title: EPA Fellowship in Immunotoxicology Assay Development and Application to PFAS Chemicals
Opportunity Reference Code: EPA-ORD-CCTE-BCTD-2024-03A

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CCTE-BCTD-2024-03A

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 8/16/2024 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 with the Computational Toxicology and Bioinformatics Branch at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Computational Toxicology and Exposure (CCTE), Biomolecular & Computational Toxicology Division (BCTD) located in Durham, North Carolina. If selected for the opportunity, the participant will need to relocate to the appropriate EPA facility. The relocation costs are not reimbursable. The opportunity is not 100% remote, but limited telework may be considered at the mentor's discretion.

Research Project: The Center for Computational Toxicology and Exposure (CCTE) within the US EPA's Office of Research and Development is heavily invested in developing New Approach Methods (NAMs) to better define the potential hazards of thousands of environmental chemicals with unknown impacts on human health. This specific project is part of a new research program in the Rapid Assay Development Branch that is actively developing a suite of assays for assessing the immunotoxicity hazard potential of a given chemical or mixture of chemicals. These new assays will include both in vitro cell-based assays employing human primary or immortalized cell lines, as well as in vivo assays utilizing the zebrafish model vertebrate species. The incorporation of immunotoxicity hazard assessment will augment the CCTE tiered strategy for the development and application of NAMs for environmental chemical screening.

This research training opportunity is a highly collaborative opportunity that will engage with multiple investigators that span the disciplines of immunology, molecular and cellular biology, high-throughput toxicology, and bioinformatics. The research project will utilize next-generation approaches

for assay development, including high-content imaging and complex co-culture cell models.

Under the guidance of a mentor, the research participant will collaborate with a multidisciplinary team to:

- Develop methods in zebrafish and cell-based assays for assessing immunotoxicity hazard
- Generate, analyze, and integrate data from these and other assays
- Synthesize results for publication and presentation

Research activities may include:

- Reading and interpreting relevant scientific literature
- Leadership and hands-on execution of experimental research and data interpretation
- Participating in meetings of the project team, branch, and division
- Preparing reports, presentations, and summaries of the data
- Opportunity to present research at professional meetings
- Authoring manuscripts for publication in peer-reviewed journals

Learning Objectives: The research participant will collaborate in developing methods, executing lab-based experiments, and generating, analyzing, and reporting data.

Mentor(s): The mentor for this opportunity is Kimberly Slentz-Kesler (slentzkesler.kimberly@epa.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: July 8, 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 three years and may be renewed up to five 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.

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

Opportunity Title: EPA Fellowship in Immunotoxicology Assay Development and Application to PFAS Chemicals
Opportunity Reference Code: EPA-ORD-CCTE-BCTD-2024-03A

(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 degree or doctoral degree in one of the relevant disciplines, or currently pursuing with degree completion by August 2024. Degree must have been received within the past five years.

Preferred Skills/Experience:

- Experience in mechanistic immunology, zebrafish research, and/or an environmental health focus
- Highly self-motivated individual with excellent writing and oral communication skills.
- Significant experience with immunology research, especially in the area of allergy / immune hypersensitivity research.
- Experience with Zebrafish model species for developmental toxicology applications.
- Experience with basic tissue culture methods and aseptic technique.
- Experience with the open-source R statistical computing environment is also helpful.
- Experience and training related to immunology, cell biology, molecular biology, and/or toxicology, or a closely related field of study.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 8/1/2024 11:59:00 PM.
- **Discipline(s):**
  - **Engineering** (1)
  - **Environmental and Marine Sciences** (3)
  - **Life Health and Medical Sciences** (51)