Opportunity Title: EPA Fellowship studying the effects of environmental chemicals on developmental neurotoxicity and endocrinology.
Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2025-01

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CPHEA-PHITD-2025-01

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 6/6/2025 2:33:28 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 Public Health and Environmental Assessment (CPHEA), Public Health & Integrated Toxicology Division (PHITD) in Research Triangle Park, North Carolina.

Research Project: Research at ORD/CPHEA/PHITD/NETB is focused on providing a scientific foundation to identify hazardous chemicals, assessing their potential risk and safeguard both public health and the environment. More specifically, we are interested in protecting both women and children's health with a focus on developmental neurotoxicology. Our research uses molecular and immunocytochemistry techniques to identify biomarkers of environmental chemical exposures (high priority emerging chemicals including perfluorinated substances (PFAS), endocrine disrupting chemicals, etc).

Under the guidance of a mentor, the research participant will have the opportunity to collaborate with a multi-disciplinary team to conduct research in the following areas:

- Design, plan, and conduct experiments. These experiments may involve in vivo and in vitro models to evaluate the effects of environmental chemicals on brain development and blood-brain barrier function.
- Analyze biological data, including data generated from next-generation technologies like RNA-Sequencing (RNA-Seq) and high-throughput assays. This may also include quantitative structure–activity relationship (QSAR) analyses if the candidate has interest.
- Acquire specialized training in molecular biology and immunocytochemistry.
- Acquire training on imaging techniques such as light and confocal microscopy.
- Maintain data management/statistics in the area of toxicology.
- Maintain quality assurance documents, standard operating procedures, and records

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management procedures.

Learning Objectives: Under the guidance of the mentors, the research participant will have the opportunity to learn how to conduct both in vivo and in vitro studies evaluating the effects of environmental chemicals on specific cellular targets that can perturb brain development.
Mentor(s): The mentors for this project are Dr. Tammy Stoker (stoker.tammy@epa.gov) and Dr. Katie O'Shaughnessy (Oshaughnessy.katie@epa.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: Winter/Spring 2025. 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: The appointment can be full-time or part-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 bachelor's degree or master's degree in one of the relevant fields or be currently pursuing. Degree must have been received within five years of the appointment start date.

Preferred skills/experience:

- Interest in cell and molecular biology, including genomic/transcriptomic technologies and computational toxicology.
- Preferred knowledge of designing and executing experimental research in a computational and/or laboratory setting; toxicology research is a plus.
- Coursework and/or experience performing statistics and bioinformatics

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is highly desirable.
- Knowledge or experience in programming languages like R is highly desirable.
- Skill with data analyses and data visualization for publications and/or presentations.
- Preferred experience with cell culture, biochemical assays, or immunocytochemistry.
- Willingness to handle animals (specifically rodents) is preferred. Dosing, sample collection, and necropsy experience is a plus.
- Experience with literature reviews and reference management (i.e., EndNote).
- Experience with Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook).
- Skill with written and oral communication.

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Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (2 👁)
  - **Communications and Graphics Design** (6 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (15 👁)
  - **Mathematics and Statistics** (11 👁)