Opportunity Title: EPA Fellowship on the Health Effects of Microplastics and other Environmental Contaminants
Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2023-06

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-ORD-CPHEA-PHITD-2023-06

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 10/20/2023 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 Public Health and Environmental Assessment (CPHEA), Public Health & Integrated Toxicology Division (PHITD) in Research Triangle Park, North Carolina.

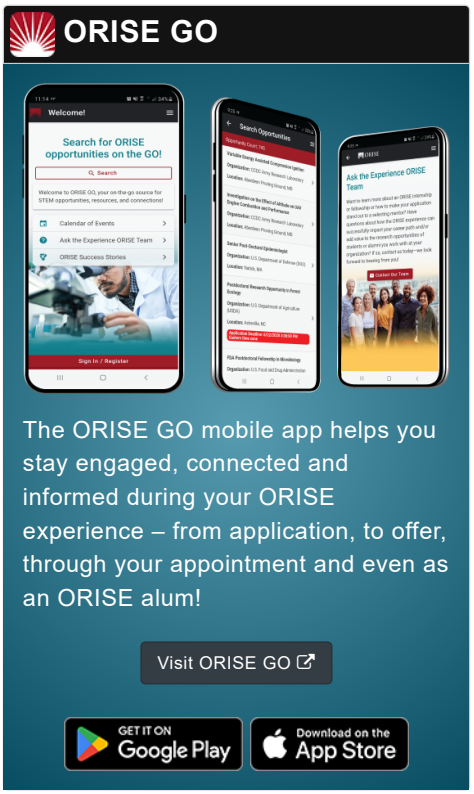
Research Project: This research project addresses the growing need to characterize the cardiopulmonary and neurobehavioral health effects of air pollution. The research participant will have the opportunity to collaborate with a multidisciplinary team at the U.S. EPA to achieve these objectives.

Under the guidance of a mentor, the participant will have the opportunity to be involved in all aspects of the research project, which may include:

- Using innovative and sensitive experimental approaches to evaluate the biological, cardiopulmonary and neurobehavioral responses to microplastics
- Assessing the health effects of other environmental contaminants (e.g., air pollution)

Learning Objectives: Under the guidance of a mentor, and while interacting with an interdisciplinary team, the research learning objectives may include:

OAK RIDGE INSTITUTE FOR SCIENCE AND EDUCATION



Opportunity Title: EPA Fellowship on the Health Effects of Microplastics and other Environmental Contaminants
Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2023-06

1. Evaluate scientific literature in order to design experiments and interpret data.
2. Attain proficiency in rodent cardiovascular physiology techniques (ECG and blood pressure telemetry, echocardiography), and associated procedures.
3. Develop and/or adhere to standard operating and quality assurance procedures for these techniques as well as data analyses, and study methods.
4. Conduct short and long-term studies to examine the in vivo health effects of microplastics as well as key air pollutants.
5. Present research findings at branch and division meetings, and local and national/international scientific conferences in the form of posters, platform talks, and/or invited seminars.
6. Prepare and submit original manuscripts containing research results to peer-reviewed journals for publication.
7. Maintain careful, easily legible, and accurate records in approved laboratory notebooks and/or electronic journals. All notebooks, journals and data produced under this plan will be the property of the U.S. EPA.

Mentor(s): The mentor for this project is Aimen Farraj (farraj.aimen@epa.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: July 16th, 2023. 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 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,

Opportunity Title: EPA Fellowship on the Health Effects of Microplastics and other Environmental Contaminants
Opportunity Reference Code: EPA-ORD-CPHEA-PHITD-2023-06

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 master's or doctoral degree in one of the relevant fields,or be currently pursuing one of the degrees with completion by August 31, 2023. Degree must have been received within five years of the appointment start date.

Preferred skills/experience in one or more of the following techniques:

- Prior experience with rodent cardiovascular physiology
- Experience in pulmonary physiology and/or neurophysiology
- Strong organizational skills with respect to time and database management experience, including evidence of experience with spreadsheet preparation, data collection, ability to complete tasks in a defined time frame, and database organization.
- Familiarity with basic laboratory health and safety procedures
- Ability to work in a physiology/biology/toxicology laboratory setting
- Strong background in analysis software

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Academic Level(s):** Graduate Students, Postdoctoral, or Post-Master's.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (3 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (48 👁)
  - **Science & Engineering-related** (1 👁)