

Opportunity Title: EPA Internship: Applying Cell-Based High-Throughput Profiling Assays for Human Health Screening

Opportunity Reference Code: EPA-OCSP-2026-0014

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OCSP-2026-0014

How to Apply *To submit your application, scroll to the bottom of this opportunity and click APPLY.*

A complete application consists of:

- An application
- Transcripts – [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. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

All documents must be in English or include an official English translation.

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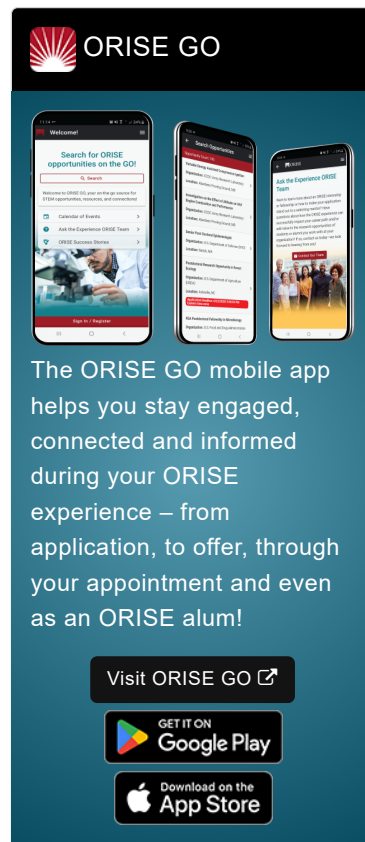
Application Deadline 1/4/2027 3:00:00 PM Eastern Time Zone

Description ***Applications are reviewed on a rolling-basis and applications may close before the deadline.**

EPA Office/Lab and Location: A research opportunity is currently available at the Environmental Protection Agency (EPA), located in Research Triangle Park, North Carolina.

The mission of EPA is to protect human health and the environment. EPA works to ensure that: Americans have clean air, land and water; National efforts to reduce environmental risks are based on the best available scientific information; Federal laws protecting human health and the environment are administered and enforced fairly, effectively and as Congress intended; Environmental stewardship is integral to U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy; All parts of society have access to accurate information sufficient to effectively participate in managing human health and environmental risks; Contaminated lands and toxic sites are cleaned up; and chemicals in the marketplace are reviewed for safety.

Research Project: The Risk Assessment Support Division within the United States Environmental Protection Agency (US EPA) Office of Chemical Safety and Pollution Prevention (OCSP) focuses on developing the tools, approaches and data needed to modernize chemical risk assessment and foster the incorporation of more efficient, non-traditional toxicity testing strategies into regulatory decision making. Currently, scientists in the RASD are engaged in multi-year collaborative projects across the agency with a common goal of these projects being to use in



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vitro new approach methodologies (NAMs), specifically high-throughput profiling assays, to characterize the biological activity of chemicals in either human or non-human cell types and use that information to inform chemical risk assessment.

To date, two high-throughput profiling assays have been established at the U.S. EPA 1) imaging-based high-throughput phenotypic profiling (HTPP) using the Cell Painting assay and 2) high-throughput transcriptomics (HTTr) using targeted RNA-Seq. These assays are compatible with multiple human and non-human derived cell types. These assays provide information on many different toxicologically relevant biological targets and cellular processes that can be affected by chemicals. You will gain experience being part of the design, conducting and analyzing multiple chemical screening studies performed in human cell lines using these high-throughput profiling assays.

Learning Objectives: Under the guidance of a mentor, you will learn to:

- Culture human cell lines.
- Design and conduct high-throughput chemical bioactivity screens using laboratory automation.
- Execute high-throughput chemical screening experiments using HTPP and HTTr
- Apply computational concentration-response modeling and profile similarity approaches to analyze and interpret high-throughput profiling data.
- Synthesize results for publications and presentations.

Participatory activities and opportunities for gained experience include:

- Hands-on participation in experimental research in a toxicology laboratory setting.
- Building experience in computational toxicology approaches by leading data analysis efforts.
- Active participation in project team, branch and division meetings.
- Preparing presentations, internal reports and data summaries.
- Presenting at scientific conferences.
- Co-authoring manuscripts for publication in peer-reviewed journals.

Mentor(s): The mentor for this opportunity is Clinton Willis (willis.clinton@epa.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: Fall/Winter 2026. All start dates are flexible and vary depending on numerous factors.

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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Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR) only.

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.

Questions: Please see the [FAQ section](#) of our website. If you have additional questions about the application process please email ORISE.EPA.OCSP@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's or master's degree in the one of the relevant fields (biology, toxicology, biochemistry, molecular biology, genetics, bioinformatics, computational biology, computational chemistry, chemistry, or a related field). Degree must have been received within the past five years.

Preferred skills:

- Cell culture experience (e.g., plating, maintaining, freezing animal cells using aseptic technique)
- Experience with microscopy (bright field, phase contrast, fluorescence, confocal)
- Previous experience with high content imaging datasets
- Previous experience with transcriptomics datasets
- Computational skills (e.g., programming, R-based statistics)
- Courses in biostatistics and/or bioinformatics
- Familiarity with literature search tools and strategies
- Skills in oral and written communication
- Previous research experience, beyond lab-oriented courses alone

Stipend \$4,391.00 – \$5,371.00 Monthly

Point of Contact [Rachel](#)

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- Eligibility**
- Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Bachelor's Degree or Master's Degree received within the last 60 month(s).
 - **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([1](#) 👁)
 - **Environmental and Marine Sciences** ([2](#) 👁)
 - **Life Health and Medical Sciences** ([51](#) 👁)
 - **Mathematics and Statistics** ([4](#) 👁)