

Opportunity Title: Toxicology Research Support at EPA

Opportunity Reference Code: EPA-SSP-0007-11

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply **How to apply:**

- Submit application and supporting documents by clicking on Apply Now button.
- *For more information, contact* EPAjobs@orau.org. Do not contact EPA directly.

Description The EPA Environmental Research and Business Support Program has an immediate opening for a Toxicology Research Support position with the Office of Research and Development at the EPA facility in Research Triangle Park, NC.

The Office of Research and Development at the EPA supports high-quality research to improve the scientific basis for decisions on national environmental issues and help EPA achieve its environmental goals.

EPA's National Center for Environmental Assessment (NCEA) is a leader in the science of human health and ecological risk assessment, a process used to determine how pollutants or other stressors may impact human health and the environment. The center occupies a critical position in EPA's Office of Research and Development (ORD) between researchers in other parts of ORD and outside of EPA who are generating new findings and data and the regulators in EPA's program and regional offices who must make regulatory, enforcement, and remedial action decisions.

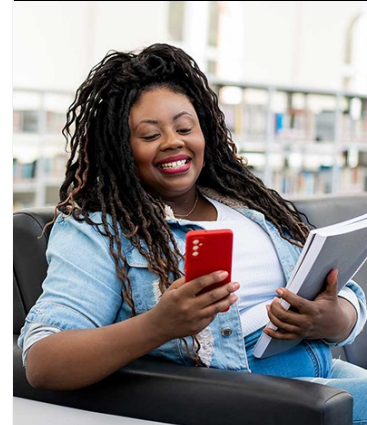
NCEA addresses the needs of stakeholders by preparing technical reports and assessments that integrate and evaluate the most up-to-date research. These products serve as a major component of the scientific foundation supporting EPA's regulations and policies. NCEA also conducts cutting-edge research to develop innovative quantitative risk assessment methods and tools that: help extrapolate between experimental data and real-world scenarios, improve our understanding of uncertainties, and facilitate careful weighing of evidence. A number of databases and tools have been developed or are being used by NCEA to support these activities, including those listed below which are relevant to this position.

The Integrated Risk Information System (IRIS) is the EPA's repository for human health effect reference values. In assessing the potential for health risk from exposure to specific chemicals, Toxicological Reviews are developed using a well-vetted process (<https://www.epa.gov/iris/basic-information-about-integrated-risk-information-system#process>) which are guided by recommendations from the National Academies of Science and EPA's Science Advisory Board.

The Health Assessment Workspace Collaborative (HAWC - <https://hawcproject.org/>) is a software tool developed to store health effects data used in human health risk assessments and in the development of advanced dose-response modeling; EPA uses a version of the software



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located on a limited-access server. The same data being used in chemical-specific assessments are also being combined with other similar data to analyze across multiple lines of comparison to better understand the determinants of risk from exposure to chemicals.

The Reference Value database (RefValueDB) project will develop a data clearinghouse from existing data sources from both within NCEA, from other parts of the Agency and from outside sources. Reference Values are developed by a number of organizations to provide an exposure level on which some risk management decision can be made. Different reference values are developed to serve the mandate for the organization deriving the value whether it be occupational values for the Occupational Safety and Health Administration (OSHA) or a Reference Dose (RfD) developed by the EPA to protect the general public. The goal of this project is to link to all of the authoritative organizations developing reference values to ensure the most up-to-date versions of their values are available to decision makers when the need arises, such as in an emergency situation.

The selected candidate shall provide guided evaluation of relevant scientific literature, extract data from selected studies, and perform data analysis support via selected chemical-specific project pages in HAWC to support IRIS Assessment work. Similar work shall also be performed to support the RefValueDB project. The selected candidate shall also interact with staff working on the HERO project as needed to perform those other tasks. He/she shall work with other members of NCEA's team to quality control entered data, and perform downstream analysis, and will be a member of a multi-disciplinary research team.

Data curation and analysis shall include:

- Performing data entry into HAWC and RefValueDB,
- Performing quality control of entered data (data entered by third parties),
- Running automated data quality tests,
- Utilizing existing and developing new analysis tools for exploring and visualizing data,
- Developing scripts to provide reports on data, and
- Assisting to develop models that explore the relationship between variables in the dataset to explore which are determinants of risk.
- Electronic and written communications products produced under this order will be the property of the U.S. Environmental Protection Agency.

Technical responsibilities shall include:

- Supporting the Quality Assurance functions and responsibilities of the IRIS Program by following established QA procedures and protocols to ensure that all health effects data generated or used by NCEA is scientifically sound, legally defensible, and of known and acceptable quality for their intended uses, and
- Reviewing scientific literature on the health effects of chemicals present in the environment and prepare data summaries in support of IRIS

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human health assessments. This may include identifying characteristics of individual toxicology or epidemiology studies that can influence determination of study quality, assisting with documentation of literature searches and search strategies, conducting library research, performing data entry, developing summary tables that present key information on study design and results from individual epidemiology and toxicology studies, developing tables of comments on draft IRIS assessments and summaries of comments, organizing and formatting scientific information consistent with standard IRIS templates, and generating various graphical presentations for health effects data (including figures generated from Excel spreadsheets or GraphPad).

Communications-related responsibilities shall include:

- Participating as a member of a multi-disciplinary research team,
- Interacting with other members of the development team as well as EPA scientists, and
- Documenting code and database development efforts.

May be asked to present work performed as a poster at a scientific conference.

Location: This job will be located at EPA's facility in Research Triangle Park, NC.

Salary: The selected applicant will become a full time temporary employee of ORAU and will receive an hourly wage of \$21.27 for hours worked.

Hours: Full Time.

Travel: Occasional overnight travel may be required.

Working Conditions: The selected candidate shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise and counsel the selected candidates, and review his/her work.

This position will involve work in an administrative setting and is not expected to involve exposure to hazardous elements.

Expected Start Date: The position start date is August/September 2018. The selected candidate will be a temporary employee of ORAU working as contractor to EPA. The initial contract period is through May 14, 2019. EPA may elect to renew the contract for an additional one (1) 12-month optional period.

For more information, contact EPAjobs@orau.org. Do not contact EPA directly.

Qualifications Eligible applicants must:

- Be at least 18 years of age, and
- Have earned at least a Bachelor's degree in biology, toxicology, chemistry, or a closely related field of study from an accredited university or college within the last 24 months, and

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- Be a citizen of the United States of America or a Legal Permanent Resident.

EPA ORD employees, their spouses, and children are not eligible to participate in this program.

Required Knowledge, Skills, Work Experience, and Education

Successful candidates shall have:

- Demonstrated education and/or experience in toxicology and/or biology,
- A working knowledge of in vivo toxicology studies,
- A working knowledge of relational databases,
- Strong written, oral and electronic communication skills,
- Proficiency with Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook), and
- Excellent proof reading and editing skills.

Desired Knowledge, Skills, Work Experience, and Education

It is desirable for the candidates to have: Expertise in MySQL database management, MS-Excel and/or MS-Access.

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| Eligibility Requirements | <ul style="list-style-type: none">• Citizenship: LPR or U.S. Citizen• Degree: Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 24 month(s).• Overall GPA: 2.00• Discipline(s):<ul style="list-style-type: none">◦ Chemistry and Materials Sciences (12 👁)◦ Environmental and Marine Sciences (1 👁)◦ Life Health and Medical Sciences (45 👁) |
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Affirmation I certify that I am at least 18 years of age; have earned at least a Bachelor's degree in biology, toxicology, chemistry, or a closely related field of study from an accredited university or college within the last 24 months; a citizen or a Legal Permanent Resident of the United States of America; and not a current employee of EPA ORD or the spouse or child of an EPA ORD employee.

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