Opportunity Title: Toxicity Reference Database Support at EPA
Opportunity Reference Code: EPA-SSP-0012-22

Organization	U.S. Environmental Protection Agency (EPA)
Reference Code	EPA-SSP-0012-22
Description	The EPA Environmental Research and Business Support Program has an immediate opening for a Toxicity Reference Database Support position with the Office of Research and Development at the EPA's Research Triangle facility in Raleigh-Durham, 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. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

The National Center for Computational Toxicology (NCCT) is responsible for developing computational tools and solutions for improving environmental risk assessments and regulatory decisions pertaining to chemical safety and sustainability. The NCCT Toxicity Value Database (ToxValDB) research project aims to store and analyze legacy in vivo toxicology data. Supporting this effort are various efforts at further curating studies in the database with detailed quantitative information as well as performing more detailed data quality assessments.

The selected candidate will provide data management, data curation and data analysis support to the ToxRefDB project. This is a combination of MySQL database management, NoSQL solutions, file management, data curation and extraction, quality control, as well as performing qualitative and quantitative data analysis.

He/she will also be working with a number of heterogeneous toxicological datasets from other projects including ToxCast and Tox21. He/she will also work with ontologies for mapping biological concepts across resources. He/she shall work with other members of NCCT's team to maintain this system, quality control entered data, and perform downstream analysis. The selected candidate will be a member of a multi-disciplinary research team and will be trained to support the development, maintenance, and analysis of ToxRefDB.

ToxRefDB data curation and analysis responsibilities shall include:

- Performing quality control of entered data (data entered by third party),
- Running automated data quality tests,
- Curating data into ToxRefDB,
- Developing analysis tools for exploring and visualizing ToxRefDB data,
- Developing scripts to provide reports on the data,
- Developing analysis methods for performing dose response modeling,
- Developing models that explore the relationship between in vivo, in vitro and in silico datasets,
- Mining integrating, and managing other toxicology resources to support analysis of ToxRefDB, and
- Managing and mapping biological ontologies to aid in integration of

resources.

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.

The selected candidate may be asked to present work performed as a poster at a scientific conference.

Location: This job will be located EPA's Research Triangle facility in Raleigh-Durham, NC.

Salary: Selected applicant will become temporary employee of ORAU and will receive an hourly wage of $33.37 for hours worked.

Hours: Full Time.

Travel: Occasional overnight travel may be required.

Expected Start Date: The position is full time and expected to begin May 2017. The initial project is through May 14, 2018, followed by up to two (2) 12-month optional periods.

Working Conditions:

The selected applicant shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise, counsel and review his/her work. This position will involve work in an administrative setting and is not expected to involve exposure to hazardous elements.

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

Qualifications **Eligible applicants must:**

- Be at least 18 years of age and
- Be pursuing a PhD degree in biology, toxicology, chemistry, bioinformatics, statistics, computational biology, math, physics, information science, or a closely related field of study from an accredited university or college within the last 24 months and
- 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

The applicant shall possess:

- Demonstrated education and/or experience in toxicology and/or biology,
- Demonstrated education and/or experience in data mining,
- A working knowledge of publicly available biological and chemical

database resources including those managed by National Center for Biomedical Information (NCBI) and European Bioinformatics Institute (EBI),

- A working knowledge of in vivo toxicology studies,
- A working knowledge of relational databases,
- R-language or Python programming (or other scripting language) experience,
- Strong written, oral and electronic communication skills,
- Demonstrated leadership skills and have experience working in teams,
- MySQL database experience,
- NoSQL solutions experience, and
- Proficiency with Microsoft Office applications (i.e., Excel, Access, PowerPoint, Word, Outlook).

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.

Eligibility Requirements
- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree received within the last 24 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Environmental and Marine Sciences** (1 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Physics** (16 👁)

Affirmation I certify that I am at least 18 years of age; currently pursuing a PhD degree in biology, toxicology, chemistry, bioinformatics, statistics, computational biology, math, physics, information science 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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