

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-SSP-0027-2R

Description The EPA Environmental Research and Business Support Program has an immediate opening for a part-time (25-30 hours/wk) EPA Data Support Research Associate 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. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

The National Exposure Research Laboratory (NERL) protects human health and the environment by developing and applying innovations in exposure science. The EPA's Office of Research and Development (ORD) conducts research within six National Program Areas, including Sustainable and Healthy Communities (SHC). SHC includes research projects to better understand health disparities in vulnerable groups, including children. One of the research tasks focuses on children's exposures to chemical and nonchemical stressors from the built, natural, and social environments. This research seeks to increase information about children's exposures to chemicals and the interrelationships between exposure factors, chemical, and non-chemical stressors.

The candidate shall provide support through data management, data curation and data analysis to the SHC children's exposure research. The candidate will be a member of a multi-disciplinary research team whose primary roles will be to process instrumental exposure measurement data, operating and maintaining instruments. The work is part of several observational exposure studies investigating aggregate exposure, primarily in the indoor environment, matrices relevant to route of exposure or route of elimination. Data will be generated on Agilent gas chromatographic mass spectrometers (GC/MS), GC/MS/MS and/or liquid chromatographic quadrupole time-of-flight (LC/QTOF) systems (collectively referred to as "instruments").

Data support for SHC children's exposure research will include (in order of importance and time spent):

- Using Agilent's MassHunter, MassProfiler, and ChemStation software, processing (e.g., generating calibration curves and quantitation, component extraction), checking data, and quality control data processing (e.g., ensuring quality control parameters are within bounds) from the instruments
- Operation (targeted and suspect screening analyses) and maintenance of the instruments
- Testing and evaluation of suspect screening analysis workflows (component extraction and alignment, formula prediction and prioritization, spectral matching, retention time prediction, component

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identification with level of certainty) and data processing parameters (e.g., match scores, deviation windows)

 Statistical (e.g., calculating summary statistics) and quality analyses of data (e.g., tracking peak area for internal standards) from the instruments

Communications-related responsibilities will include (in order of importance and time spent):

- Documenting research activities
- Participating as a member of a multi-disciplinary research team through interactions with other scientists
- Drafting data reports

The candidate may be asked to present work performed at a local scientific conference. And it may be possible to incorporate this data into the candidate's thesis documents.

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

Salary: Selected applicants will become temporary employees of ORAU and will receive an hourly wage of \$33.37 for hours worked.

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 candidate and review his/her work. The mentor for this position will be a federal EPA employee. This position will involve work in a laboratory setting and may involve exposure to hazardous elements.

Travel: Occasional local travel may be required.

Expected Start Date: The position is part-time (between 25 and 30 hours per week) and expected to begin December 2016. The selected applicant will be a temporary employee of ORAU working as a contractor to EPA. The initial contract period is through May 14, 2017, followed by 3 additional 12 month option periods.

For more information, contact <u>EPAjobs@orau.org</u>. Do not contact EPA directly.

Qualifications Eligible applicants must:

- Be at least 18 years of age and
- Be currently enrolled in a PhD program or have received a PhD within the last 24 months from an accredited university or college for exposure science, chemistry, cheminformatics, environmental science, a physical science, or a closely related field of study 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

Successful candidate shall have:

- A working knowledge of chromatographic mass spectrometry.
- Demonstrated education and/or experience in quantitative analytical measurements of environmental or biological samples.
- Demonstrated education and/or experience in quality control/quality assurance practices.
- Demonstrated proficiency in sample/dataset statistics and calculations for analytical measurements.
- Demonstrated education and/or experience in mechanical and electronic repairs, maintenance, and/or troubleshooting for analytical instruments.
- Strong written, oral and electronic communication skills.

Desired Knowledge, Skills, Work Experience, and Education

It is desired but not required for the candidate to have:

- A working knowledge of Agilent MassHunter, MassProfiler, and ChemStation software.
- Demonstrated education and/or experience in R- and/or SAS programming.
- A working knowledge of AMDIS or other spectral matching algorithms.

How to apply

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

Eligibility • C

- Citizenship: LPR or U.S. Citizen
- Requirements Degree: Doctoral Degree received within the last 24 month(s).
 - Discipline(s):
 - Chemistry and Materials Sciences (12.)
 - Earth and Geosciences (21 (1)
 - Engineering (<u>27</u> [●])
 - Environmental and Marine Sciences (14)
 - Life Health and Medical Sciences (45 (19)
 - Physics (<u>16</u>)
 - Affirmation I certify that I am at least 18 years of age; am currently enrolled in a PhD program or have received a PhD within the last 24 months from an accredited university or college for exposure science, chemistry, cheminformatics, environmental science, a physical science, or a closely related field of study; 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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