

Opportunity Title: Analytical Development and High Resolution Mass

Spectrometry Scientist

Opportunity Reference Code: EPA-NSSC-0007-64-11-29-21

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-NSSC-0007-64-11-29-21

How to Apply Click [HERE](#) to apply.

Description The EPA National Student Services Contract has an immediate opening for a full time Analytical Development and High Resolution Mass Spectrometry Scientist 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. Research is conducted in a broad range of environmental areas by scientists in EPA laboratories and at universities across the country.

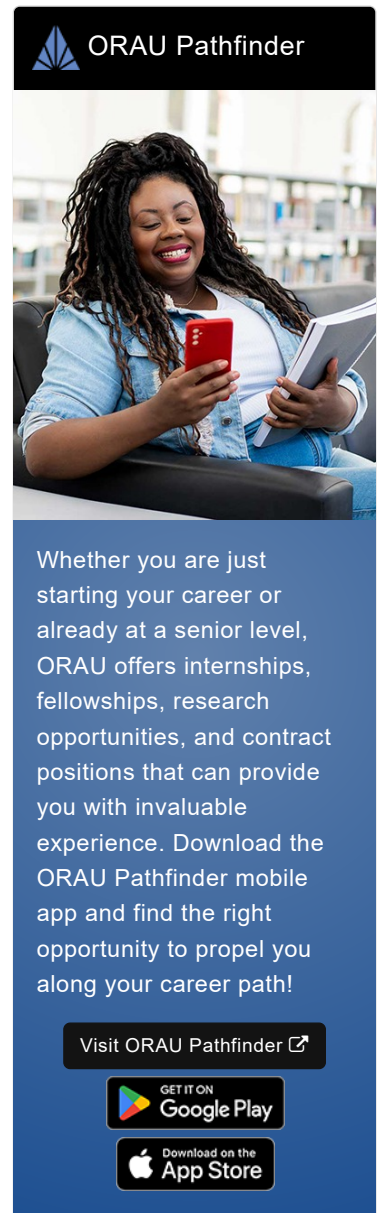
What the EPA project is about


The Center for Environmental Measurement and Modeling (CEMM) conducts research to advance the Agency's ability to measure and model contaminants in the environment, including research to provide fundamental methods and models needed to implement environmental statutes. Within CEMM, the Air Methods and Characterization Division (AMCD) develops, evaluates and applies advanced laboratory and field methods to measure, characterize, and analyze concentrations of pollutants in the air and at various emission sources.

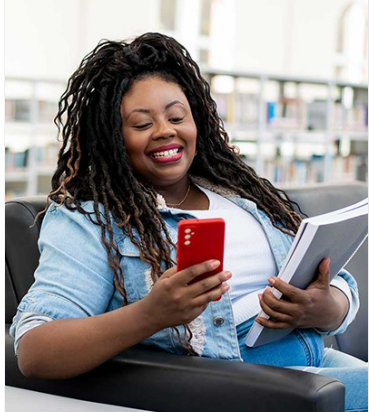
As part of their mission, AMCD supports EPA's mission to protect human health and the environment by developing and applying methods to measure new chemicals. One group of chemicals, Per- and polyfluoroalkyl substances (PFAS), are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

What experience and skills will you gain?


As a team member, you will provide laboratory support, data management, and data analysis support for the study of PFAS in the environment and the success of various destruction techniques. You will provide laboratory support, database management, file management, data curation and extraction, quality control, as well as performing qualitative and quantitative data analysis. The team member will collaborate with an EPA team of investigators who are identifying PFAS emissions from various sources. The goal of this research is to use High Resolution Mass Spectrometry (HRMS) to identify PFAS in emissions from various treatment technologies.





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Laboratory Support, Data Development and Analysis responsibilities shall include:

- Applying creativity and intellect to solve complex problems and generate ideas for further investigation;
- Developing and interpreting large multivariate datasets (~thousands of observations per sample) (e.g. searching for trends, relevancies, patterns, etc. in “-omics data”);
- Developing and using extraction strategies for various media that are the most encompassing for the majority of screening chemicals;
- Generate reports of screened samples via HRMS for screened compounds;
- Identify novel compounds in selected media; and
- Other laboratory support tasks.

Communications-related responsibilities shall include:

- Participating as a member of a PFAS research team;
- Interacting with other members of the research team as well as collaborating closely with other EPA scientists who are experts in chemistry, biology, pharmacokinetics, biological modeling, survey statistics, and risk assessment for supporting regulatory decision-making;
- Documenting methods and efforts;
- Presenting work performed at professional meetings or scientific conference as required; and
- Preparing manuscripts for publication in peer-reviewed journals.

Required Knowledge, Skills, Work Experience, and Education

- Demonstrated education and/or experience in analytical chemistry and database screening;
- Prior experience with High Resolution Mass Spectrometry (HRMS) (ex Orbitrap, QTOF-MS, etc.);
- Analytical and sample preparation experience;
- Knowledge of data-mining techniques, statistics, and oral and written presentation skills;
- Demonstrated ability to interpret data and develop computational models to pose and test hypotheses; and
- Strong written, oral, and electronic communication skills.

Desired Knowledge, Skills, Work Experience, and Education

- Experience with HRMS LC is preferred, experience with HRMS GC is acceptable, experience with both LC and GC is desired and
- Experience in chemo-informatics.

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

Salary: Selected applicant will become a temporary employee of ORAU and will receive an hourly wage of \$30.16 for hours worked.

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Hours: Full-time.

Travel: Occasional overnight travel may be required.

Expected start date: The position is full time and expected to begin January 2022. The selected applicant will become a temporary employee of ORAU working as a contractor to EPA. The initial project is through May 14, 2022, with up to 3 additional option periods.

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

- Qualifications**
- Be at least 18 years of age **and**
 - Have earned at least a Master's degree in the fields of chemistry, analytical chemistry, polymer engineering, biochemistry, computational chemistry/biology, polymer chemistry, environmental chemistry, chemo-informatics or a 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.

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Master's Degree received within the last 24 month(s).
 - **Overall GPA:** 2.00
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([6](#))
 - **Engineering** ([1](#))

Affirmation I certify that I am at least 18 years of age; a recent graduate with at least a Master's degree in the fields of chemistry, analytical chemistry, polymer engineering, biochemistry, computational chemistry/biology, polymer chemistry, environmental chemistry, chemo-informatics or a 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.

Click [HERE](#) to apply.

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