

Opportunity Title: EPA Epidemiology Laboratory Support Opportunity Reference Code: EPA-SSP-0008-9

Organization U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-SSP-0008-9

**Description** The EPA Environmental Research and Business Support Program has an immediate opening for an EPA Epidemiology Laboratory Support with the Office of Research and Development at the EPA facility in Cincinnati, OH.

The Office of Research and Development at the EPA supports 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 Ecological and Human Community Analysis Branch (EHCAB) of the Systems Exposure Division (SED), National Exposure Research Laboratory (NERL), Office of Research and Development (ORD) at EPA develops decision frameworks and integrated tools to help communities make better decisions to sustain a healthy society and environment. A research team in SED is working collaboratively with EPA's National Health and Environmental Effects Research Laboratory (NHEERL) to explore the beneficial health effects associated with exposure to green space in the environment.

The selected candidate shall assist the SED team with providing technical laboratory support for an epidemiological research project which uses various biomarkers of health and microbiome analysis in blood, saliva, and stool samples in order to assess health benefits of green spaces and other urban facilities.

## Technical laboratory support responsibilities shall include:

- Preparation of Quality Assurance Project Plan,
- Coordinating receipt and distribution of water, saliva, blood, and stool samples and associated documentation to the appropriate EPA laboratories,
- Processing of samples received, including filtration, centrifugation, and solvent extraction,
- Preparing microbiological media and supplements for analysis of culturable bacteria,
- Analyzing biomarker concentrations in human samples using Enzyme-Linked Immunosorbent Assay (ELISA) and LuminexTM technology,
- Extracting nucleic acid from processed samples using a variety of commercial kits,
- Analyzing microbiome using molecular techniques such as, but not limited to, reverse transcription (RT) polymerase chain reaction (PCR), quantitative PCR, droplet digital PCR, and targeted gene sequencing,
- Preparing sequencing libraries for microbial (bacteria and viruses) analysis using a variety of molecular techniques and validated protocols, including DNase treatment, PCR, whole genome amplification, sample barcoding, product clean-up and normalization,
- Maintaining careful and accurate records in designated laboratory

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notebooks, and

• Maintaining inventory of supplies and ordering supplies as needed.

#### Communications-related responsibilities will 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 experimental and sample collection efforts.

Selected candidate may be asked to present work performed as a poster at a scientific conference and to assist with writing a manuscript or report describing the research.

Location: This job will be located at EPA's facility in Cincinnati, OH.

Hours: Full-time

**Salary:** The selected applicant will become a temporary employee of ORAU and will receive an hourly wage of \$20.80 for hours worked.

Travel: Occasional overnight travel may be required.

**Working Conditions:** This work will be in a laboratory setting and may involve exposure to hazardous elements.

The selected candidate shall be supervised by a mentor who will provide day-to-day direction, as well as coach, advise and counsel the student, and review his/her work. The mentor for this position will be a federal EPA employee.

**Expected Start Date:** The position is full time and expected to begin November 2016. The selected applicants will be temporary employees of ORAU working as contractors to EPA. The initial contract period is through May 14, 2017. EPA may elect to renew the contract for an additional three 12-month optional periods.

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, microbiology, molecular biology, 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.

## Required Knowledge, Skills, Work Experience, and Education

Successful candidates will have:



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- Experience with general laboratory safety practices,
- Working knowledge of general laboratory techniques, including aseptic and sterile technique,
- Demonstrated experience in microbiological (or related) research,
- Demonstrated experience in molecular biology research, including experience with DNA/RNA extractions, PCR, RT-PCR, and gel electrophoresis,
- Proficiency with Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook),
- Strong communication skills (i.e., written, oral, presentation abilities), and
- Demonstrated leadership skills and have experience working in a multidisciplinary team.

## 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 • Citizenship: LPR or U.S. Citizen

- Requirements
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 24 month(s).
- Discipline(s):
  - Engineering (<u>1</u>

  - Life Health and Medical Sciences (45.)
- Affirmation I certify that I am at least 18 years of age; a recent graduate with at least a Bachelor's degree in biology, microbiology, molecular biology, 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.

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