

**Opportunity Title:** EPA Biological Laboratory Support

**Opportunity Reference Code:** EPA-SSP-0027-9

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-SSP-0027-9

**Description** The EPA Environmental Research and Business Support Program has an immediate opening for an EPA Biological 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 National Exposure Research Laboratory (NERL) is responsible for protecting human health and the environment by developing and applying innovations in exposure science. NERL provides scientific leadership, understanding, and tools necessary to quantify exposure for humans and ecosystems.

The Exposure Methods & Measurement Division (EMMD) provides the science that underlies the measurement of environmental stressors and their interaction with biological systems. This science includes method development, evaluation, and field and laboratory testing. These measurement methods are foundational to the Agency's regulatory programs and stakeholder needs in protecting public health and the environment.

The selected candidate shall provide technical laboratory support for research projects focused on: 1) Identifying human exposure to environmental pathogens by measuring levels of IgG antibodies in human saliva, plasma, and serum; 2) Using molecular techniques combined with multiplex technology to identify pathogenic antigens in stool; and 3) Measuring levels of antibody and cytokines/chemokines in serum obtained from animal studies. The incumbent will work with team members to ensure that the data obtained is of a very high quality and is reproducible. All data obtained will be added to specific files on LabLan (the data storage database developed for EPA).

**Technical laboratory support responsibilities shall include assisting with:**

- Receiving and processing saliva samples shipped to the Exposure Laboratory in Cincinnati, OH,
- Coupling a variety of antigens and antibodies to Luminex magnetic and carboxylated beads,
- Ensuring that the beads are properly coupled by performing coupling confirmations,
- Analyzing the saliva samples to determine exposure to multiple analytes simultaneously (multiplex immunoassay) using Luminex xMAP technology,
- Assisting with the use of the Luminex xMAP platform,
- Assisting with molecular techniques including nucleic acid extractions and analysis by PCR or real-time, quantitative PCR (qPCR),
- Maintaining an accurate laboratory notebook and becoming familiar with the Health and Safety Plan/Quality Assurance Plan governing work in the laboratory,
- Performing quality control of data obtained from the multiplex immunoassays,
- Developing analysis tools for exploring and visualizing immunoassay data, and
- Maintaining inventory of supplies.

**Communications-related responsibilities shall include:**

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

Selected candidate 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 Cincinnati, OH.

**Salary:** The selected applicant will become a full time temporary employee of ORAU and will receive an hourly

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wage of \$20.80 for hours worked.

**Travel:** Occasional overnight travel may be required.

**Working Conditions:** This position will involve work 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 selected candidate, and review his/her work.

**Expected Start Date:** The position start date is October 2016. The selected applicant will be temporary employees of ORAU working as a contractor 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](mailto: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, immunology, environmental 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**

Successful candidates will have:



- Demonstrated education and/or experience in immunology, microbiology and/or biology,
- Working knowledge of general laboratory techniques for measuring immunological responses, knowledge of aseptic technique, as well as general laboratory safety practices,
- At least two years of experience with Luminex xMAP technology,
- Advanced experience and demonstrated proficiency with immunological techniques including Enzyme-Linked Immunosorbent Assay (ELISA) and bead-based multiplex immunoassays,
- Working knowledge of molecular techniques including nucleic acid extraction and analysis by PCR or real-time, quantitative PCR (qPCR),
- Strong written, oral and electronic communication skills, and
- Proficiency with Microsoft Office applications (i.e., Excel, PowerPoint, Word, Outlook).

#### **How to apply:**

Submit application and supporting documents by clicking on Apply Now button.

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#### **Eligibility Requirements**

- **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):**
  - **Environmental and Marine Sciences** (13 )
  - **Life Health and Medical Sciences** (46 )

#### **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, immunology, environmental science or a closely related field of study from an accredited

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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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