Opportunity Title: Environmental Microbiology Research - Postdoctoral
Opportunity Reference Code: ERDC-EL-2020-0033

Organization U.S. Department of Defense (DOD)

Reference Code ERDC-EL-2020-0033

How to Apply

Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- Essay Questions (goals, experiences, and skills relevant to the opportunity)
- Resume (PDF)
- Transcripts/Academic Records - For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click here for detailed information about acceptable transcripts.
- 2 Recommendation(s)

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to **USACE@orise.orau.gov.** Please list the reference code of this opportunity in the subject line of the email.

Letter of Recommendation: While a letter of recommendation is not required to be considered, applicants are required to provide contact information for one recommendation in order to submit the application. Applicants are encouraged to request a letter of recommendation before submission as this may help reviewers have a better understanding of the applicant's qualifications and interests. If selected, a letter of recommendation must be submitted on your behalf upon acceptance of the appointment.

All documents must be in English or include an official English translation.

Description

The Environmental Laboratory (EL) provides relevant, value-added technology supporting the environmental mission of the US Army Corps of Engineers, the Army, the Department of Defense (DoD), and the Nation. Headquartered in Vicksburg, Mississippi, the EL's interdisciplinary staff of over 220 engineers, scientists, technicians, and support personnel plans and executes all phases of the technology development process, from basic research to field implementation to commercialization. The EL staff consists of problem solvers who use research, development, experimentation, special studies, and technical support to address the needs of national and international business development partners. Partnering with Federal and State agencies, academia, and the private sector, the EL uses its distinctive technical capabilities to resolve complex, multi-disciplinary environmental sustainability problems.

Under the guidance of a mentor, the selected candidate will engage in research focused on various aspects of environmental microbiology. Specific projects include

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baseline microbiome characterizations of natural soil and subterranean systems representing different geographical locations, testing and evaluating existing DNA based commercially available off-the-shelf (COTS) analysis/sensor platforms in the lab and field, and developing, testing and fielding new experimental detection technologies targeting specific microorganisms. The participant will conduct a series of laboratory, field, and mesocosm studies focused on detecting natural threats in the environment. Preferred candidate skills include: a) enriching, culturing, and characterizing environmental microorganisms and microbial communities, b) designing and utilizing molecular and cellular diagnostic assays in lab and field settings, c) performing high-throughput DNA sequencing with some skill in bioinformatics analysis. The participant will acquire skills in the development and implementation DNA and cell based diagnostics for field application. The participant will gain experience through mentor-ship by senior lab personnel and principle investigators by assisting with publications, technical reports and presentations. Good communication, and interpersonal and writing skills are essential as well as a willingness to research in a highly multidisciplinary environment.

Length of Appointment

This appointment is a full-time twelve month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Participant Benefits

Participants will receive a stipend to be determined by **USACE.** Stipends are typically based on the participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Health Insurance Supplement. *Participants are eligible to purchase health insurance through ORISE.*
- Relocation Allowance
- Training and Travel Allowance

Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

Qualifications

The postdoctoral candidate will demonstrate the following skills:

- Microbiological and molecular biology techniques,
- Microbial genomic sequencing/transcriptomics,
- Bioinformatics (microbial genome assembly/annotation and microbial community analysis)
- Some experience in apply molecular tools in the field.

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Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Earth and Geosciences** (21 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Mathematics and Statistics** (10 👁)
  - **Other Non-Science & Engineering** (1 👁)
  - **Physics** (16 👁)
  - **Social and Behavioral Sciences** (17 👁)
- **Age:** Must be 18 years of age