

**Opportunity Title:** Molecular Biology Research in Bacterial Genetics

**Opportunity Reference Code:** MRMC-WRAIR-2020-0006

**Organization** U.S. Department of Defense (DOD)

**Reference Code** MRMC-WRAIR-2020-0006

**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 - [Click here for detailed information about acceptable transcripts](#)
- 1 Recommendations

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 [ARMY-MRMC@ORISE.ORAU.gov](mailto:ARMY-MRMC@ORISE.ORAU.gov). Please list the reference code of this opportunity in the subject line of the email.

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

**Description** The Multidrug-Resistant Organism Repository and Surveillance Network (MRSN) currently has a mentorship opportunity available at the Walter Reed Army Institute of Research in Silver Spring, Maryland. The MRSN is the sole entity within the DoD engaged in real-time surveillance of multi-drug resistant (MDR) bacteria and molecular outbreak investigation assistance across the entire Military Healthcare System. This opportunity will allow the participant to engage in cutting edge research addressing the dangerous threat posed by MDR organisms to military service members and their families.

The participant will learn and develop molecular biology laboratory techniques required for the whole genome sequencing (WGS) of MDR bacterial species in order to perform drug-resistance surveillance within the DOD network. The participant will establish a fundamental understanding of translational, military-relevant scientific research, while gaining hands-on laboratory experience using multiple WGS platforms, including the Illumina MiSeq/NextSeq, PacBio RSII, and the Oxford Nanopore MinION. Under the guidance of a mentor, the participant will be exposed to clinical assays to phenotypically characterize MDR bacterial species and molecular biology techniques to further study the molecular mechanisms of resistance.

Additionally, the participant will be highly encouraged to begin expanding their network of scientific colleagues and collaborators within the U.S. Department of Defense, academia, and commercial companies while performing bacterial WGS research in one of the most comprehensive sequencing laboratories in the US.

Walter Reed Army Institute of Research (WRAIR) aims to conduct biomedical research that is responsive to the U.S. Department of Defense (DoD) and U.S. Army requirements and delivers life-saving products including knowledge, technology and medical material that sustain the combat effectiveness of the Warfighter.

For more information about WRAIR, please visit: <https://www.wrair.army.mil> or visit <https://www.wrair.army.mil/biomedical-research/mrsn> for more information on the MRSN.



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**Appointment Length**

This appointment is a 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 WRAIR. 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** Bachelor's or Master's degree in biology, microbiology, molecular biology, or biotechnology.

Laboratory experience with prokaryotic organisms is recommended.

- Eligibility Requirements**

- **Citizenship:** LPR or U.S. Citizen
  - **Degree:** Bachelor's Degree or Master's Degree received within the last 48 months or anticipated to be received by 5/31/2020 11:59:00 PM.
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([1](#) )
    - **Communications and Graphics Design** ([1](#) )
    - **Earth and Geosciences** ([21](#) )
    - **Environmental and Marine Sciences** ([14](#) )
    - **Life Health and Medical Sciences** ([45](#) )
    - **Other Non-Science & Engineering** ([2](#) )
    - **Social and Behavioral Sciences** ([27](#) )