

Opportunity Title: Biomedical Engineer Support Intern Opportunity Reference Code: MRMC-WRAIR-2020-0012

Organization U.S. Department of Defense (DOD)

Reference Code MRMC-WRAIR-2020-0012

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 <u>Click here for detailed information about acceptable</u> 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 <u>ARMY-MRMC@ORISE.ORAU.gov</u>. 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 Walter Reed Army Institute of Research (WRAIR) aims to conduct biomedical research that is responsive to the Department of Defense and U.S. Army requirements and delivers lifesaving products including knowledge, technology and medical material that sustain the combat effectiveness of the warfighter. WRAIR provides unique research capabilities and innovative medical solutions to a range of Force Health Protection and Readiness challenges currently facing U.S. Service Members and threats anticipated during future operations. These research opportunities include ongoing efforts to identify and treat traumatic brain injury as well as to understand and mitigate the harmful effects of repeated exposures to blast.

During this research opportunity, the participant will develop subject matter expertise in conjunction with the immediate research objectives of our blast overpressure medical research program. Injuries and impairments resulting from exposures to a single blast or repeated blasts are high visibility concerns to the US military and little is currently defined. Under the guidance of a mentor, you will assess the biomechanical underpinnings of blast insults that cause injuries to vital organs, including the lungs and brain. In this capacity, you will participate in the design of experimental studies and assist with the collection, analysis, interpretation, and reporting of data generated for both small and large animal models of blast injury. These studies are critical to the experimental development of injury criteria and will form the basis for developing standardized guidelines and test methodologies to study the effectiveness of PPE against primary blast. It is fully anticipated that the multi-faceted experiences associated with this research project will provide professional educational growth along with enhanced career opportunities. This research project will promote valuable educational growth, including the development of a well-rounded research background spanning blast physics, physiology, neurobiology, and cognitive performance. In conjunction with this professional educational growth, the project is a tremendous opportunity to experience first-hand the formulation and testing of data-driven hypotheses. Collectively, these experiences can translate into opportunities for further graduate-level academic training or a related research-based career

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Appointment Length



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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.

• Degree: Bachelor's Degree received within the last 60 month(s).

Qualifications The applicant must possess a bachelor's degree in biomedical engineer. Hands-on experience working with laboratory animal models, computational modeling related to biomedical research, and familiarity with MATLAB and related data analysis tools are desired.

Eligibility

• Citizenship: U.S. Citizen Only

Requirements

- Discipline(s):
 - Engineering (<u>27</u> ⁽²⁾)
 - Life Health and Medical Sciences (30.)