

Opportunity Title: Blast-induced Brain Injury Research Intern at Walter Reed

Army Institute of Research (WRAIR)

Opportunity Reference Code: MRMC-WRAIR-2022-0011

Organization U.S. Department of Defense (DOD)

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How to Apply Click on Apply at the bottom of the opportunity to start your application.

Description

Walter Reed Army Institute of Research is the Department of Defense's premier organization conducting basic and applied research to promote psychological resilience, neurological functioning, and operational readiness among Service Members. The goal is to reduce the mortality and morbidity resulting from mild to severe traumatic brain injuries (TBI) occurring in military-centric environments and across the spectrum of acute to chronic post-injury recovery periods.

What will I be doing?

As an ORISE participant, you will gain hands-on preclinical research experience while providing research assistance employing militarily-relevant rodent models of blast-induced brain injury (bTBI) to identify the neurobiological underpinnings of bTBI and to identify factors that shape vulnerabilities to bTBI and persistent sequelae. Participants will have the opportunity to be involved with the following research activites:

- assisting with biomechanical and biological mechanisms of blast injury as well as assisting with behavioral assessments
- designing, developing, and implementing the application of biological processes pre/post blast insults
- applying electrocardiogram (EKG) electrodes and equipment
- preparing biological samples for processing (tissue, blood, and saliva)
- performing data entry, data analysis, and literature reviews
- submitting abstracts for poster presentations at national scientific conferences

Why should I apply?

Under the guidance of a mentor, you will gain hands-on experience to complement your education and support your academic and professional goals. Along the way, you will engage in activities and research in several areas. These include, but are not limited to:

- Exposing animals to blast using the advanced blast simulator
- Performing animal surgeries to induce controlled cortical impact in animal models
- Injecting therapeutic agents to animals for testing their efficacy against injuries to the brain and neurosensory systems after blast exposure
- Performing neurobehavioral, auditory and ocular functional assessments in animals
- Carrying out animal necropsy including transcardial perfusions
- Conducting biochemical, molecular and histopathological evaluations in animal specimens
- Analyzing data using statistical analysis software

Where will I be located?

Silver Spring, Maryland

What is the anticipated start date?

The Walter Reed Army Institute of Research is ready to make appointments immediately. Exact





helps you stay engaged, connected and informed during your ORISE experience – from application, to offer, through your appointment and even as an ORISE alum!





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start dates will be determined at the time of selection and in coordination with the selected candidate. Applications are reviewed on an ongoing basis and internships or fellowships will be filled as qualified candidates are identified.

What is the 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.

What are the benefits?

You will receive a stipend to be determined by Walter Reed Army Institute of Research. Stipends are typically based on a 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

About WRAIR

The Walter Reed Army Institute of Research (WRAIR) aims to conduct biomedical research that is responsive to U.S. 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, along with threats anticipated during future operations. These research opportuniities include ongoing efforts to identify and treat traumatic brain injury as well as to understand and mitigate the deleterious effects of repeated exposures to blast. For more information about the WRAIR, please visit www.wrair.army.mil.

About ORISE

This program, administered by Oak Ridge Associated Universities (ORAU) through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and DoD. Participants do not enter into an employee/employer relationship with ORISE, ORAU, DoD or any other office or agency. Instead, you will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE. For more information, visit the ORISE Research Participation Program at the U.S. Department of Defense.

Qualifications The qualified candidate should have received a Bachelor's degree in a neuroscience, biology, or related discipline and commensurate research experience using animal and human subjects protocols. Degree must have been received within five years of the appointment start date.

> Highly competitive applicants will have education and/or experience in one or more of the following:

· Animal research or clinical protocols directly involving military blast exposure and assessment of associated effects

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- · Rodent models
- · Field research, especially if connected to a military setting
- Statistical software packages (i.e. SAS, SPSS, GraphPad Prism) and/or with MATLAB, ePRIME. R
- Microsoft Office products (i.e. MS Word, Excel, PowerPoint)

A completed and favorably adjudicated background investigation for the Department of Defense is an asset. Human subjects protection training will be required and basic life support (BLS) will be required.

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Application Requirements

A complete application consists of:

- Zintellect Profile
- · 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. <u>Click here for detailed information about acceptable</u> <u>transcripts</u>.
- Two Recommendations. Your application will be considered incomplete and will not be reviewed until two recommendations are submitted. We encourage you to contact your recommenders as soon as you start your application to ensure they are able to complete the recommendation form and to let them know to expect a message from Zintellect. Recommenders will be asked to rate your scientific capabilities, personal characteristics, and describe how they know you. You can always log back in to your Zintellect account and check the status of your application.

If you have questions, send an email to ARMY-MRMC@orise.orau.gov. Please list the reference code of this opportunity MRMC-WRAIR-2022-0011 in the subject line of the email.

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

Eligibility Requirements

- Citizenship: U.S. Citizen Only
- Degree: Bachelor's Degree received within the last 48 month(s).
- Discipline(s):
 - Life Health and Medical Sciences (7.
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).

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