

Opportunity Title: Neuropharmacology Drug Research & Discovery Opportunity

Opportunity Reference Code: MRMC-MRICD-2021-0002

Organization U.S. Department of Defense (DOD)

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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)
- Transcripts/Academic Records Click here for detailed information about acceptable transcripts
- Recommendation

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. 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 U.S. Army Medical Research Institute of Chemical Defense (USAMRICD) is the Department of Defense's lead laboratory for medical chemical defense research. As a subordinate element of the U.S. Army Medical Research and Materiel Command (USAMRMC), the institute conducts research for development of medical countermeasures to treat exposure to various chemical threat agents for protection of soldiers and civilians. Scientific disciplines at USAMRICD include, but are not limited to, chemistry, biology, biochemistry, pharmacology, molecular biology, neuroscience, toxicology, physiology, psychology, and immunology. Visit us on Facebook at http://www.facebook.com/USAMRICD.

> The USAMRICD is seeking candidates that have recently completed a bachelor's degree in biological sciences, pharmacology, neuroscience, physiology, or related life health science field to assist in the laboratory experiments for medical and drug research and development (R&D) projects. The objectives are to elucidate neural injury mechanisms following toxic chemical intoxication, to understand the pathways and circuitries involved in seizure, inflammation, tissue damage, and behavioral deficit, to discover therapeutic strategies that suppress or reverse pathologic sequelae, and to screen drugs that can revive the toxic and neurobehavioral consequences by pharmacological or neurophysiological interventions.

This research will provide the participant with valuable hands-on experience in a variety of different disciplines. Under the guidance of a mentor, the participant can expect to gain the following as part of their role in the project: learning basic laboratory skills and techniques; small animal (such as mouse, rat, guinea pig) surgical experience including the implantation of electroencephalographic (EEG) and optogenetic devices and microdialysis cannulae; knowledge of rodent anatomy and physiology to aid in the dissection and extraction of various organs and tissues; knowledge of histological techniques required for the preparation of slides for image analysis; analytical experience through data analysis of enzymatic assay results; knowledge of electrophysiology to better understand experiments involving the acquisition of EEG readings and the resulting data; learn the optogenetic and a variety of neurobehavioral testing procedures; knowledge of automation and instrumentation through the use of liquid handling robotics, plate readers and



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spectophotometric and liquid chromatographic systems; experience in writing abstracts and preparing posters for scientific presentations.

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 MRICD. Other benefits may include the following:

- Health Insurance Supplement. Participants are eligible to purchase health insurance through ORISE
- 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.

While participants will not enter into an employment relationship with DOD or any other agency, this opportunity will require a suitability investigation/background investigation. Any offer made is considered tentative pending favorable outcome of the investigation.

Qualifications Degree Requirement: Bachelor's Degree (earned or currently pursuing)

- Biological Sciences
- Pharmacology
- Neuroscience
- Physiology
- or a related Life Health and Medical Science field

GPA requirement: 3.0 and above.

Eligibility Requirements

• Citizenship: U.S. Citizen Only

 Degree: Bachelor's Degree received within the last 60 months or currently pursuing.

• Overall GPA: 3.00

- Discipline(s):
 - Chemistry and Materials Sciences (12.
 - Environmental and Marine Sciences (1...)
 - Life Health and Medical Sciences (45 ●)
- Age: Must be 18 years of age
- Veteran Status: Veterans Preference, degree received within the last 120 month(s).

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