

Opportunity Title: Nerve Agent Intoxication Countermeasure and Animal Model Development Projects

Opportunity Reference Code: MRDC-MRICD-2021-0011R

Organization U.S. Department of Defense (DOD)

Reference Code MRDC-MRICD-2021-0011R

How to Apply

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

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 www.facebook.com/USAMRICD.

What will I be doing?

USAMRICD is offering an opportunity for current students or recent graduates of all academic levels, undergraduate through doctoral, at Aberdeen Proving Ground in Edgewood, Maryland. 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 several projects in two main research areas in a laboratory at the USAMRICD:

1) Development of a human-relevant small animal model for the testing of countermeasures for nerve agent intoxication and

2) Identification and/or design of novel small molecules for the reversal of acetylcholinesterase inhibition by organophosphorus nerve agents (the main cause of nerve agent intoxication).

As the selected participant, you will develop skills needed to implement standard mouse breeding practices, participate in animal experiments aimed at characterizing genetically modified mice, and learn a variety of *in vitro* techniques including PCR genotyping and biochemical enzyme activity assays. In addition, you will engage in data compilation and analysis techniques, prepare manuscripts, posters, presentations and other technical writings. Finally, this opportunity will include learning FDA Good Laboratory Practices (GLP) guidelines and participation in GLP or Animal Rule Qualifying (ARQ) studies.

For more information regarding projects associated with this opportunity, please contact Dr. Linn Cadieux at christena.l.cadieux.civ@mail.mil.

Where will I be located?

Edgewood Proving Ground, Maryland

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 USAMRICD. Stipends are typically based on a

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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 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 <u>ORISE Research Participation Program at the U.S.</u> Department of Defense.

Qualifications Applicant should be currently pursuing or have completed a Bachelor's degree, Master's degree, or PhD in a related discipline. Must be a U.S. Citizen.

Preferred skill-set and/or experience:

 No specific skills are required however some familiarity with in vitro biochemical assays and/or small animal handling skills is encouraged.

Application Requirements

A complete application consists of:

- Zintellect Profile
- Educational and Employment History

· Citizenship: U.S. Citizen Only

- · 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>.

If you have questions, send an email to army-mrmc@orise.orau.gov.

Eligibility Requirements

- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 5/31/2022 12:00:00 AM.
- Overall GPA: 2.80
- Discipline(s):
 - Chemistry and Materials Sciences (3.)



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- Engineering (2_♥)
- Life Health and Medical Sciences (<u>18</u>)
- Age: Must be 18 years of age
- Veteran Status: Veterans Preference, degree received within the last 120 month(s).