

Opportunity Title: Advanced Cellular Therapeutics Research in Trauma and Hemorrhagic Shock

Opportunity Reference Code: USAISR-2023-0011

Organization U.S. Department of Defense (DOD)

Reference Code USAISR-2023-0011

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

Description The U.S. Army Institute of Surgical Research is offering a doctoral candidate fellowship at JBSA Fort Sam Houston.

What will I be doing?

As an ORISE participant, you will join a community of scientists and researchers in an effort to use both our pure hemorrhage model and our ATC model as the testing platforms to identify biomarkers of endotheliopathy and coagulopathy in relation to mechanotransduction and effects of cellular treatments on biomarkers as well as resuscitation outcomes.

Severe trauma and hemorrhage is a leading cause of death in military casualties, with previous demographic data from Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) suggesting that roughly 90% of preventable death prior to arrival at a medical treatment facility is due to hemorrhage alone. The mortality associated with uncontrolled hemorrhage is not only due to the severity and location of the injury, but also largely due to development of acute traumatic coagulopathy (ATC) immediately after trauma. The cause of endotheliopathy is multifactorial, and the temporal mechanistic link that it has with ATC (how ATC contributes to endotheliopathy and vice versa) has yet to be fully determined. Our laboratory has established an animal model of ATC in rodents using polytrauma and hemorrhagic shock.

Why should I apply?

Under the guidance of a mentor, you will engage in a variety of research activities, including:

- Performing a small animal surgical procedure involving hemorrhage while also fostering knowledge development on acute traumatic coagulopathy
- Developing leadership skills
- Cultivating ability to communicate scientific information in both verbal and written media.
- Drafting and/or modifying new and/or current animal protocols for review by the Institutional Animal Care and Use Committee.
- Screening biomarkers associated with acute traumatic coagulopathy and finding correlation to biomarkers associated with pathways affected by endotheliopathy
- Performing various surgical techniques on living small animal species while also preparing tissues for analysis

Where will I be located? San Antonio, Texas

What is the anticipated start date?

Exact 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 fellowships will be filled as qualified candidates are identified.

What is the appointment length?

Appointments are initially for one year with the option to extend the appointment for up to four additional years, contingent upon project needs and funding availability.

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What are the benefits?

You will receive a stipend to be determined by USAISR. Stipends are typically based on a participant's academic standing, discipline, experience, and research facility location. Other benefits may include the following:

- Participants are eligible to purchase health insurance through ORISE
- Relocation Allowance
- Training and Travel Allowance

About USAISR

The U.S. Army Institute of Surgical Research is one of six research laboratories within the U.S. Army Medical Research and Materiel Command of the U.S. Army Medicine Command. The Institute is the Army's lead research laboratory for improving the care of combat casualties. The mission of the Institute is to "Optimize Combat Casualty Care".

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 will be currently pursuing a Ph.D. in any of the required fields listed on the opportunity.

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 - Please upload a copy of a transcript for your current or most recent degree program that meets the disciplinary qualifications of the opportunity. [Click here for detailed information about acceptable transcripts](#).
- One recommendation. Your application will be considered incomplete and will not be reviewed until one recommendation is submitted. We encourage you to contact your recommender(s) 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.

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If you have questions, send an email to ARMY-MRMC@orise.orau.gov. Please list the reference code of this opportunity [USAISR-2023-0011] in the subject line of the email. Please understand that ORISE does not review applications or select applicants; selections are made by the sponsoring agency identified on this opportunity. All application materials should be submitted via the "Apply" button at the bottom of this opportunity listing. Please do not send application materials to the email address above.

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Point of Contact [Leslie](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Currently pursuing a Doctoral Degree.
 - **Discipline(s):**
 - **Engineering** ([2](#))
 - **Life Health and Medical Sciences** ([4](#))