Opportunity Title: EACE Orthopaedic Trauma Research Postdoctoral Fellowship
Opportunity Reference Code: EACE-2023-0002

Organization U.S. Department of Defense (DOD)

Reference Code EACE-2023-0002

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

Description The Extremity Trauma and Amputation Center of Excellence (EACE) is offering a postdoctoral opportunity at the Uniformed Services University of the Health Sciences (USUHS) and Walter Reed National Military Medical Center (WRNMMC) located in Bethesda, Maryland.

What will I be doing?

This Orthopaedic Trauma Research Fellowship will be part of the EACE Regenerative Biosciences Laboratory which is located within the Department of Surgery at USUHS and WRNMMC. The EACE Regenerative Biosciences Laboratory primarily focuses on the development and evaluation of next generation technologies and approaches for the treatment of combat related orthopaedic trauma. In particular, contemporary cell / molecular biology in vitro approaches as well as clinically relevant small and large animal models of orthopaedic trauma are utilized to generate the knowledge required to translate promising technologies into clinical practice. Specifically, ongoing efforts within the EACE Regenerative Biosciences Laboratory include several projects focused on volumetric muscle loss (VML) and post traumatic osteoarthritis (PTOA). VML, defined as the irrecoverable frank loss of skeletal muscle tissue with associated persistent functional deficits, presents pervasively, with representation in ~50% of total war injuries, and is a leading factor in the decision to amputate with 80% of the surgical amputations performed on military casualties directly related to this missing skeletal muscle tissue.

Why should I apply?

Under the guidance of a mentor, you will engage in activities and research in several areas including participating in research around new interventional strategies which minimize or prevent progressive degeneration of the synovial joint to facilitate greater joint function and quality of life for the patient. High reoccurrence of injury and progressive degeneration through a process coined Post Traumatic Osteoarthritis (PTOA). PTOA is pervasive and represents a significant socioeconomic burden as it is estimated to result in expenditures on the order of 15 billion dollars per year within the United States civilian sector and represents the most prominent deleterious secondary health condition leading to medical discharge following combat related trauma in our military.

Key education and training aspects of this Orthopeadic Trauma Research Fellowship will include: exposure to various aspects of pre-clinical research by participating in ongoing collaborative research projects; data collection appropriate to existing research protocol(s); processing, analyzing, and interpreting collected data; descriptive and inferential statistical analyses; participate in the preparation abstracts for professional conferences and/or manuscripts for publication in peer-reviewed scientific

journals.

What is the appointment length?

EACE is prepared to start begin this fellowship in the spring of 2023 pending the review of applications and the selection of a candidate. This appointment is a 12-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 EACE. 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 EACE

The Extremity Trauma & Amputation Center of Excellence (EACE) is a unique organization within the DoD consisting of teams of researchers embedded at the point of care within multiple Military Treatment Facilities across the nation. In line with the congressionally directed mission of the EACE, the research efforts undertaken focus on the mitigation, treatment and rehabilitation of traumatic extremity injuries and amputations with a specific focus on translating their findings into clinical practice to improve the care of injured Service Members and Veterans. To learn more, visit: https://www.health.mil/About-MHS/OASDHA/HSPO/EACE.

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 have completed a PhD from an accredited institution in bioengineering, biomedical engineering, immunology, cell / molecular biology, physiology, or a related field within the last five years, or be currently pursuing a PhD in the disciplines indicated with an anticipated graduation date prior to September 30, 2023.

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

- Highly preferred knowledge, skills, and abilities: experience in the fields of regenerative medicine, tissue engineering, cell / molecular biology, immunology, biomaterials, physiology, or related fields.
- Proficiency with contemporary biomedical wet lab methodology and small and/or large animal models are also required.
- Specific research background in the area of extremity trauma is highly desired. A track record of publication and excellent technical writing skills are preferred.
- 3-5 years of experience performing pre-clinical research.
- Physical Capabilities: Long periods of standing and sitting.
- Experience in research animal handling.

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. Click here for detailed information about acceptable transcripts.
- One recommendation

If you have questions, send an email to STEM-WORKFORCE@orise.orau.gov. Please list the reference code of this opportunity [EACE-2023-0002] 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.

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

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 9/30/2023 11:04:30 AM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12)
  - **Communications and Graphics Design** (2)
  - **Computer, Information, and Data Sciences** (16)
  - **Earth and Geosciences** (21)
  - **Engineering** (27)
  - **Environmental and Marine Sciences** (14)
  - **Life Health and Medical Sciences** (45)
  - **Mathematics and Statistics** (10)

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- **Other Non-Science & Engineering** (2 👁)
- **Physics** (16 👁)
- **Science & Engineering-related** (1 👁)
- **Social and Behavioral Sciences** (27 👁)