Opportunity Title: EACE Musculoskeletal Biomechanist Research Fellow
Opportunity Reference Code: EACE-2024-0005

Organization U.S. Department of Defense (DOD)

Reference Code EACE-2024-0005

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

Description The Extremity Trauma & Amputation Center of Excellence (EACE) is offering a postgraduate fellowship at Walter Reed National Military Medical Center.

What will I be doing?

Musculoskeletal injuries and disorders are the second largest contributor to disability globally and involve substantial health and economic burden (~6% of the gross domestic product). Within the military, musculoskeletal injuries are also the leading threat to force readiness and source of healthcare expenditure. Moreover, severe extremity trauma is the signature combat-related injury, with approximately 1,800 US military service members suffering traumatic limb loss.

As an Oak Ridge Institute for Science and Education (ORISE) participant, you will join a community of scientists and researchers in an effort to utilize experimental and computational methods to study the influences of extremity trauma on musculoskeletal health, with a particular emphasis on the pathomechanical factors affecting the structure and function of a variety of musculoskeletal tissues.

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:

- collect and analyze data derived from materials testing and motion capture systems
- learn different imaging modalities and other ancillary equipment
- disseminate findings and idea generation for future projects.

Where will I be located? Bethesda, Maryland

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.

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:

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

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About EACE

The Extremity Trauma and Amputation Center of Excellence (EACE) is the leading advocate for research and treatment of Department of Defense (DoD) and Department of Veterans Affairs (VA) patients with extremity trauma and amputation. The EACE leads efforts to enhance collaboration between the DoD and the VA extremity trauma and amputation care providers and conduct scientific research to minimize the effects of traumatic injuries and improve clinical outcomes (https://www.health.mil/About-MHS/OASDHA/HSPO/EACE). This position will be housed at Walter Reed National Military Medical Center (WRNMMC), the flagship of United States Military Medicine.

The EACE Musculoskeletal Tissue Biomechanist Research Fellow will primarily interface with the WRNMMC Orthopaedics Biomechanics Laboratory; a laboratory which conducts translational and basic science research with an emphasis on the biomechanical evaluation of surgical and non-surgical interventions for musculoskeletal health. The Orthopaedics Biomechanics Laboratory is equipped with a MTS 858 Bionix Testing System outfitted with an OptoTrack Certus optoelectronic motion analysis system to collect cadaveric specimen kinematic data. The Fellow will work closely with orthopaedic residents during their dedicated research year and further leverage local resources. This symbiotic relationship will strengthen the WRNMMC Orthopedics graduate medical education and maximize the Fellow's productivity. Based on historical data, the Orthopaedics Biomechanics Laboratory is expected to produce approximately 8 peer-reviewed publications annually.

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 hold a bachelor's or master's degree from an accredited institution in biomedical engineering, mechanical engineering, or a related field. The degree must have been received no more than 5 years from the appointment start date.

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

- experience performing tissue biomechanics research

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)

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- 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. 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.

If you have questions, send an email to STEM-WORKFORCE@orise.orau.gov. Please list the reference code of this opportunity [EACE-2024-0005] 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

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Engineering** (27 👁)