Opportunity Title: EACE Musculoskeletal Tissue Biomechanist Postdoctoral Fellowship
Opportunity Reference Code: EACE-2021-0005R

Organization U.S. Department of Defense (DOD)

Reference Code EACE-2021-0005R

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 Walter Reed National Military Medical Center (WRNMMC), in Bethesda, Maryland.

What will I be doing?

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.

There is an evolving collection of projects relevant to the orthopedic community that align with the musculoskeletal health line of inquiry and compliment the EACE mission. The identified projects largely emphasize the repetitive stresses (i.e., cyclical loading) that our Service Members face when they return-to-duty following musculoskeletal injury. Cyclically loading the tissues and implants in a controlled laboratory setting allows us to identify the failure points (e.g., tissue vs. implant) without the need to prospectively track Service Members over time. As an EACE Musculoskeletal Tissue Biomechanist Research Fellow, you 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, as part of your research, you will operate an MTS machine, reduce and analyze collected data, as well as assist with the dissemination of findings and idea development. In addition, you will collaborate closely with orthopaedic residents during their dedicated research year and further leverage local resources. This symbiotic relationship will strengthen the WRNMMC Orthopaedics graduate medical education and maximize your experience. Based on historical data, the Orthopaedics Biomechanics Laboratory is expected to produce approximately 8 peer-reviewed publications annually.

Where will I be located?

Walter Reed National Military Medical Center (WRNMMC), in Bethesda, Maryland

What is the appointment length?

EACE is prepared to start this appointment in November, 2021 pending the review of applications and selection of a candidate. This appointment is an eleven 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*

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ORISE)

- Relocation Allowance
- Training and Travel Allowance

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.

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 in biomedical engineering, or a related field, or expects to have completed by June 30, 2022. Degree must have been received within five years of the appointment start date.

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

- Preferred experience in the fields of biomedical engineering (1 – 2 years), human tissue biomechanics, biomaterials or related fields, and proficiency operating the above noted equipment.
- Physical capabilities include, but are not limited to long periods of standing and sitting.
- Specific research background in the area of extremity trauma is highly desired.
- A track record of publication and excellent technical writing skills are preferred.
- The work environment is that of a tissue biomechanics laboratory in a DoD teaching and research hospital.

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.

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- One recommendation

If you have questions, send an email to STEM-WORKFORCE@orise.orau.gov. Please list the reference code of this opportunity [EACE-2021-0005R] 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:** Currently pursuing a Doctoral Degree to be received by 6/30/2022 12:00:00 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)
  - **Other Non-Science & Engineering** (2)
  - **Physics** (16)
  - **Science & Engineering-related** (1)
  - **Social and Behavioral Sciences** (27)