Opportunity Title: Injury Biomechanics and Protection Faculty
Opportunity Reference Code: MRMC-AARL-2019-0003

Organization U.S. Department of Defense (DOD)

Reference Code MRMC-AARL-2019-0003

How to Apply

Components of the online application are as follows:

- Profile Information
- Educational and Employment History
- Statement of Research (PDF) - This statement of research should describe previous and current efforts, future projects, relevance to field, relation to USAARL, etc. For more information, please visit: https://orise.orau.gov/sepreview/USAARL_ORISE_Research.pdf
- Curriculum Vitae (PDF)
- Salary Certification from your university

Submitted documents must have all social security numbers, student identification numbers, and/or dates of birth removed (blanked out, blackened out, made illegible, etc.) prior to uploading into the application system.

If you have questions, send an email to ARMY-MRMC@orise.orau.gov. Please list the reference code of this opportunity in the subject line of the email.

All documents must be in English or include an official English translation.

Description

The US Army Aeromedical Research Laboratory (USAARL), located at Fort Rucker, Alabama, is a nationally recognized laboratory for research into safety, survival, impact tolerance, sustainability and performance effectiveness of aviators and Soldiers. The USAARL's research focuses on blunt, blast and accelerative injury and protection; crew survival in military helicopters and combat vehicles; the en route care environment; human operator health and performance in complex systems and sensory performance, injury and protection. Current USAARL work for the Army's modernization priorities includes research in the areas of future vertical lift, the next generation combat vehicle and directed-energy weapons. The Laboratory's highly skilled workforce consists of rated aviators, medical professionals, doctoral- and masters-level researchers, and research technicians. For more information, please visit: https://www.usaarl.army.mil/

Participants will assist researchers with various aspects of approved research protocols and test plans to include, but not limited to, writing literature reviews, protocols, and test plans; conducting research protocols and test plans; collecting data; analyzing data; writing and publishing manuscripts; and preparing and presenting poster and oral presentations locally and at scientific meetings. Participants will learn about and use novel instrumentation and data acquisition techniques. Participants will share and communicate lessons learned and knowledge gained with research team colleagues and students. Participants will undergo a background investigation and must obtain a favorable clearance in order to participate.

Current research projects on Soldier injury mechanisms, human tolerance levels, injury-risk mitigation technologies, and health hazards present in the full spectrum of Army operational and training environments include: characterizing spine biomechanical and whole-body physiologic responses that Soldiers experience during the dynamic vehicle exposures from different land- and air-based military

Opportunity Title: Injury Biomechanics and Protection Faculty
Opportunity Reference Code: MRMC-AARL-2019-0003

vehicles; digitizing data generated by the Naval Biodynamics Laboratory to preserve it, make the data available for the research community, and to conduct research on the understanding of neurological insult related to non-contact impact acceleration; identifying injury tolerance and dynamic biofidelity for the human skull, as well as developing injury criteria and performance assessment methods for use in medically based standards for future helmet systems; investigating the tolerance of the constrained human mandible to blunt impact; providing medical, injury biomechanics, and human and aviation safety analysis of protective equipment.

Appointment Length

An ORISE appointment period can be a summer (10-12 weeks) or yearlong appointment. Faculty appointments are generally for 10-12 weeks during the summer, but appointments during the academic year are also available. Appointments may be extended depending on funding availability, project assignment, program rules, and availability of the participant.

Participant Benefits

Participants will receive a stipend to be determined by USAARL. Stipends are typically based on the participant's university salary. Participants may also be awarded a conference travel allowance.

Nature of Appointment

The participant will not enter into an employee/employer relationship with ORISE, ORAU, DOD, or any other office or agency. Instead, the participant will be affiliated with ORISE for the administration of the appointment through the ORISE appointment letter and Terms of Appointment.

While participants will not enter into an employment relationship with DOD or any other agency, this opportunity will require a suitability investigation/background investigation. Any offer made is considered tentative pending favorable outcome of the investigation.

Qualifications

Faculty in the following disciplines: Aerospace Engineering, Electrical Engineering, Mechanical Engineering, Biomedical Engineering, Material Engineering, Textile/Polymer Engineering, Industrial/Systems Engineering, Computer Science, Biostatistics, Applied Mathematics, Statistics, Kinesiology, Radiology, Pathology, Neurohistopathology, Neurology, Histology, Anatomy and Physiology, Epidemiology, and others.

Full-time for approximately 12 weeks in a Semester; or Part-time throughout an Academic year

- Faculty members should submit a written description of their current research projects/interests to ensure proper alignment with the USAARL Research groups.
- Faculty can participate as individuals, or once selected invite 1 to 2 students to apply to the Student Program.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Any degree .

Opportunity Title: Injury Biomechanics and Protection Faculty
Opportunity Reference Code: MRMC-AARL-2019-0003

- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Communications and Graphics Design** (2 👁)
  - **Computer, Information, and Data Sciences** (16 👁)
  - **Engineering** (27 👁)
  - **Environmental and Marine Sciences** (1 👁)
  - **Life Health and Medical Sciences** (45 👁)
  - **Other Non-Science & Engineering** (2 👁)
  - **Physics** (16 👁)
  - **Science & Engineering-related** (1 👁)
  - **Social and Behavioral Sciences** (28 👁)