

Opportunity Title: Air Force Research Laboratory (AFRL) - Neuroscience

Postdoctoral Researcher

Opportunity Reference Code: AFRL-711HPW-2021-0018

Organization U.S. Department of Defense (DOD)

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

Description The U.S. Air Force Research Laboratory (AFRL) is offering a postdoctoral internship to support the AFRL 711 Human Performance Wing (711 HPW), Airman Systems Directorate, Warfighter Medical Optimization Division, Product Development Branch, Enroute Care (RHBAM) branch aeromedical research collaboration with the University of Maryland, Baltimore.

What will I be doing?

As an ORISE participant, you will join a community of scientists and researchers in an effort to strengthen your skills in molecular neuroscience.

Under the guidance of a mentor, you will gain hands-on experience to complement your education and support your academic and professional goals. The primary research project compares how secondary insults after traumatic brain injury not only worsen cognition and motor activity but also increase damage to lungs, gut, and kidney. The main secondary injury studied is simulated flight, focusing on the substantial reduction in barometric pressure that occurs in aircraft cabins during aeromedical transport. Throughout your participation you will be exposed to techniques and practices which help train students and other staff to use microscopy with stereological quantification techniques. Quantitative histopathology and immunohistochemistry will be used to better understand the molecular basis of exacerbated brain injury by hypobaria. These measurements will be complemented by magnetic resonance imaging and spectroscopy.

Laboratory Group: The group consists of two junior faculty, a postdoctoral fellow, a Laboratory Manager, and several Research Assistants and Specialists. The principal investigator has over 35 years of experience in biochemical-based research directed primarily at ischemic and traumatic brain injury with emphasis on altered energy metabolism and oxidative stress.

Where will I be located?

Baltimore, Maryland

What is the anticipated start date?

AFRL is ready to make appointments immediately. 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 internships will be filled as qualified candidates are identified.

What is the appointment length?

This appointment is a twelve month research appointment, with the possibility to be renewed for additional research periods. Appointments may be extended depending on funding availability, project assignment, program



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rules, and availability of the participant.

What are the benefits?

You will receive a stipend to be determined by AFRL. 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 AFRL

The 711 HPW is headquartered at Wright-Patterson Air Force Base in Ohio, is the first human-centric warfare wing to consolidate human performance research, education, and consultation under a single organization. Established under AFRL, the 711 HPW is comprised of the Airman Systems Directorate (RH) and the United States Air Force School of Aerospace Medicine (USAFSAM). For more information about the 711th Human Performance Wing, please visit <https://www.wpafb.af.mil/afrl/711hpw/>.

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 a PhD or MD with 2-4 years of neuroscience research using quantitative neuropathology and immunohistochemistry. 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:

- Extensive experience using quantitative light microscopy is desired.
- Additional experience with lab techniques such as qPCR, immunoblots, and magnetic resonance imaging and spectroscopy is welcome.
- Experience with small animal behavior assays is also helpful.
- Applicants must not have more than five years postdoctoral research experience and should have at least two first-authored, published research manuscripts.

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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 AIRFORCE@orise.orau.gov. Please list the reference code of this opportunity [AFRL-711HPW-2021-0018] in the subject line of the email.

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**Eligibility
Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Communications and Graphics Design** ([2](#) )
 - **Computer, Information, and Data Sciences** ([17](#) )
 - **Earth and Geosciences** ([21](#) )
 - **Engineering** ([27](#) )
 - **Environmental and Marine Sciences** ([14](#) )
 - **Life Health and Medical Sciences** ([46](#) )
 - **Mathematics and Statistics** ([10](#) )
 - **Physics** ([16](#) )
 - **Science & Engineering-related** ([1](#) )
 - **Social and Behavioral Sciences** ([28](#) )