

Opportunity Title: AFRL Biosensors Research Fellowship
Opportunity Reference Code: AFRL-711HPW-2025-0004R

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 Air Force Research Laboratory is offering a Biosensor Research Fellowship in the Operational Sensing Section at the 711th Human Performance Wing (711 HPW), headquartered at Wright-Patterson Air Force Base in Dayton, Ohio.

What will I be doing?

As an Oak Ridge Institute for Science and Education (ORISE) participant, you will join a community of scientists and researchers engaged in human performance and health assessment research with a focus on biosensor development. The research fellow will learn and apply techniques in biosensor fabrication and participate in testing and evaluating their performance for the detection of various biomolecules.

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:

- Learn about improving sensor performance and stability for the long-term measurement of biomolecules in humans
- Gain experience in fabricating various types of sensors and biosensors
- Utilize 3D design and fabrication to create prototypes and test apparatuses
- Participate in the evaluation of quality control and statistical analysis
- Learn about optimizing liquid handler to automate biomolecule assembly on electrodes
- Participate in development of techniques for high throughput optimization of sensing elements
- Gain experience in the synthesis and characterization of nanomaterials
- Participate in summarizing scientific findings and preparing journal articles, conference presentations, and other public documentation

Where will I be located?

This appointment is located at Wright-Patterson Air Force Base in Dayton, OH.

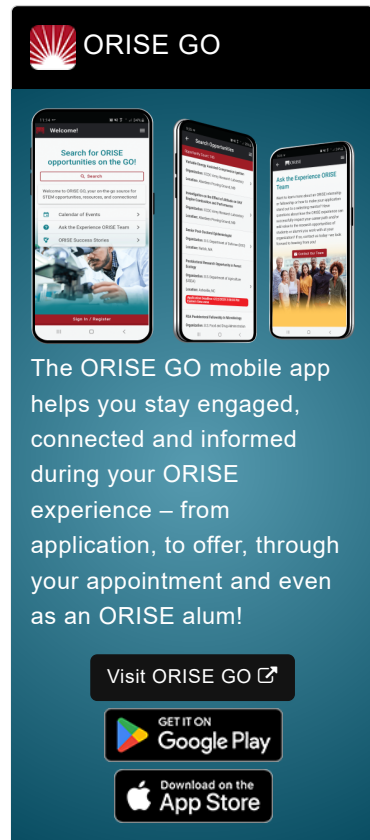
What is the anticipated start date?

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?

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 rules, and availability of the participant.

What are the provisions?



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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 provisions 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 711th Human Performance Wing (711 HPW), 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 the Air Force Research Laboratory (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 Air Force Research Laboratory, please visit <https://afresearchlab.com/>.

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 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 should hold or be currently pursuing a Bachelor's, Master's, or Doctoral degree in any of the disciplines listed in the eligibility section. Degree holders must have earned their degree within five years of the appointment start date, or if currently pursuing, must have an anticipated completion date on or before December 31, 2026.

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 - 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.

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If you have questions, send an email to AIRFORCE@orise.orau.gov. Please list the reference code of this opportunity [AFRL-711HPW-2025-0004] 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!

Point of Contact [Leslie](#)

- Eligibility Requirements**
- **Citizenship:** LPR or U.S. Citizen
 - **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 12/31/2026 11:59:00 PM.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Engineering** ([4](#) )
 - **Life Health and Medical Sciences** ([4](#) )