

**Opportunity Title:** AFSAM - Medical Entomology Fellow

**Opportunity Reference Code:** AFSAM-2021-0004

**Organization** U.S. Department of Defense (DOD)

**Reference Code** AFSAM-2021-0004

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

**Description** The Epidemiology Consult Service/Public Health and Preventative Medicine Department at the U.S. Air Force School of Aerospace Medicine, in the 711th Human Performance Wing of the Air Force Research Laboratory (AFRL), is offering a bachelor's or master's level fellowship.

**What will I be doing?**

As an ORISE participant, you will join a community of scientists and researchers in the medical entomology laboratory in an effort to investigate mosquitoes collected at OCONUS AF installations for genetic evidence of insecticide resistance.

We know that mosquitoes can develop insecticide resistance as a consequence of exposures to pesticides in the environment. If installation pest managers cannot control mosquitoes biting personnel, this could pose a health threat in the event of a mosquito-borne disease such as West Nile virus or malaria. In the U.S., *Aedes albopictus* and *Ae. japonicus*, non-native (introduced) mosquitoes, are capable of transmitting a number of North American arboviruses. The medical entomology laboratory receives samples from installations worldwide. Samples are initially examined under the microscope to determine their taxonomic identification. If this is not possible due to the condition or novelty of the sample, or unavailability of geographically relevant keys, then arthropods from different AF installations (CONUS and OCONUS) may need DNA barcoding to support a species determination. You will analyze these species collected from Air Force bases to detect La Crosse encephalitis, West Nile virus and a variety of other lesser known bunyaviruses associated with human febrile illness and disease. *Aedes triseriatus* are included in this study as the primary enzootic vector of La Crosse encephalitis virus, that can serve as a sentinel for virus activity in the environment. This information will be shared with Public Health and Pest Managers for preparedness and planning purposes.

**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 may include, but are not limited to:

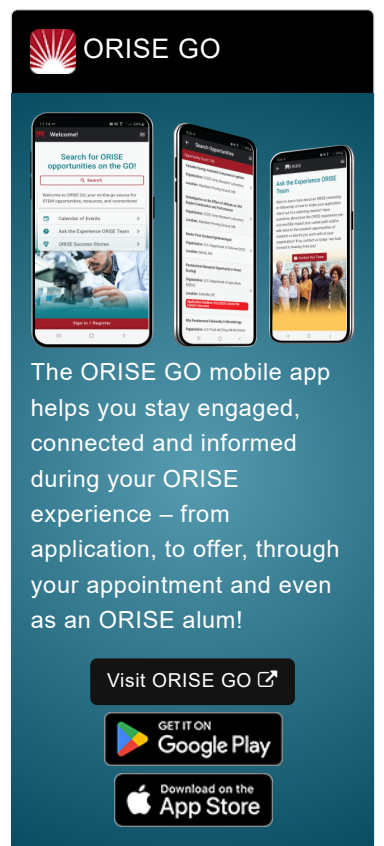
- Providing surveillance support by identifying, testing and analyzing medically important arthropods received by the laboratory
- Researching Airmen exposures leading to rabies post-exposure prophylaxis and HRIG administration at OCONUS installations
- Conducting medical chart reviews, creating a dataset and performing a descriptive analysis of the information obtained

**Where will I be located?**

Dayton, Ohio

**What is the anticipated start date?**

The Air Force Research Laboratory 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 or fellowships will be filled as



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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 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**

This fellowship is with the Medical Entomology Program, Epidemiology Consult Service at the U.S. Air Force School of Aerospace Medicine, in the 711th Human Performance Wing of the [Air Force Research Laboratory \(AFRL\)](#), at Wright-Patterson Air Force Base in Dayton, OH.

**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 be pursuing a Bachelor's or Master's degree in Biology, Zoology, or a closely related field, or will have earned one in the last 5 years.

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

- Academic coursework in biology, zoology, molecular biology, entomology, parasitology, epidemiology, genetics, microbiology, virology, or related disciplines
- Experience in nucleic acid extractions (DNA and RNA), testing for disease agents in arthropods, and the identification of mosquitoes and ticks
- Knowledge of vector-borne and zoonotic diseases, their epidemiology and ecology

**.Application Requirements**

A complete application consists of

- Zintellect Profile
- Educational and Employment History












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- 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.](#)
- 1 Recommendation

If you have questions, send an email to [AIRFORCE@orise.orau.gov](mailto:AIRFORCE@orise.orau.gov). Please list the reference code of this opportunity AFSAM-2021-0004 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.

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- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
  - **Degree:** Bachelor's Degree or Master's Degree received within the last 12 months or currently pursuing.
  - **Overall GPA:** 3.10
  - **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](#) )