

**Opportunity Title:** Vector Biologist Fellow (Tick Surveillance) - U.S. Air Force

**Opportunity Reference Code:** AFSAM-2021-0001R

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

**Reference Code** AFSAM-2021-0001R

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

**Description** The U.S. Air Force School of Aerospace Medicine (USAFSAM) is offering a fellowship with the Medical Entomology Laboratory, Epidemiology Consult Service in the Public Health and Preventive Medicine Department. USAFSAM is a part of the 711th Human Performance Wing of the U.S. Air Force Research Laboratory (AFRL) at Wright-Patterson Air Force Base in Dayton, OH.

#### What will I be doing?

As an ORISE participant, you will engage in tick surveillance activities at up to eight U.S. Air Force bases, evaluating for changes in native tick distributions, and/or the introduction of invasive tick species. You will have the opportunity to gain experience and/or learn a variety of methodologies under the guidance of a mentor, including:

- Environmental tick surveillance using standard methods (dragging, flagging).
- Removal of ectoparasites from euthanized/killed wildlife.
- Tick species identification and pathogen testing.
- Sampling ectoparasites from captured birds (TBD).
- Performing a comparative tick sampling study at the host location, Wright-Patterson Air Force Base, using two different dry ice traps and two different tick drags.

This opportunity involves seasonal travel to up to eight U.S. Air Force bases (TBD) for a week or more at a time and extensive field work during different parts of the year in a variety of environments. You will plan and coordinate the trips and the base sampling efforts with Public Health, Pest Managers, Wildlife Biologists, Natural Resource Managers and other relevant personnel at the chosen bases (TBD). Funding is available for conference attendance and/or training opportunities.

#### 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:

- Extracting nucleic acids to prepare samples for PCR, sequencing analysis, and /or detection of tick-borne disease agents.
- Software analysis of nucleotide sequence data to confirm species identification or reveal phylogenetic relationships as needed.
- Engaging with Public Health personnel at two to three bases to implement on-site tick testing of human biting *Ixodes scapularis* for *Borrelia burgdorferi*.
- Potential to participate in CDC's MALDI-TOF tick analysis project by



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submitting specimens to that program.

- Submitting novel findings and study results for presentation/publication.

**Where will I be located?**

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 (anticipated NLT September 2021). 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 rules, and availability of the participant.

**What are the benefits?**

You will receive a stipend to be determined by USAFSAM. 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 USAFSAM**

The 711th Human Performance Wing (711 HPW) is a unique combination of two units: the Airman Systems Directorate (RH) and the U.S. Air Force School of Aerospace Medicine (USAFSAM). USAFSAM is the premier institute for research, education, and worldwide operational consultation in Aerospace Medicine. USAFSAM has guided the advancement of aerospace medicine and human performance from the beginnings of aviation through the onset of the space age and into the present, and is the oldest continually operating institution of its kind. It is also host to the largest aeromedical library in the world. For more information about the USAF School of Aerospace Medicine, please visit <https://www.wpafb.af.mil/afri/711hbw/USAFSAM/>.

**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

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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** Preferred qualifications:

- Master's degree in Vector Biology, Entomology, Medical or Veterinary Entomology, or a related field, or will have received a degree by August 31, 2021.
- A combination of education and experience that prepares the candidate for this opportunity is also acceptable.
- Degree must have been received within five years of the appointment start date.

Highly competitive applicants will have:

- Experience in the identification of medically important arthropods such as ticks.
- Education and/or experience, including field work, animal and ectoparasite sampling, tick surveillance, and lab work involving the testing/analysis of arthropod samples.


**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](mailto:AIRFORCE@orise.orau.gov). Please list the reference code of this opportunity [AFSAM-2021-0001] in the subject line of the email.

**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:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
  - **Discipline(s):**
    - **Life Health and Medical Sciences** ([46](#) )