

Opportunity Title: USDA-ARS Foreign Arthropod-Borne Animal Diseases

Fellowship

Opportunity Reference Code: USDA-ARS-PA-2024-0378

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PA-2024-0378

How to Apply *To submit your application, scroll to the bottom of this opportunity and click **APPLY**.*

A complete application consists of:

- An application
- Transcript(s) – 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.
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional recommendations
- A copy of an abstract or reprint of an article

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

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Application Deadline 3/7/2025 3:00:00 PM Eastern Time Zone

Description ***Applications are reviewed on a rolling-basis.**

ARS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), within the Foreign Arthropod-Borne Animal Diseases Research Unit. This opportunity will be located at the Biosecurity Research Institute at Kansas State University in Manhattan, Kansas.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific in-house research agency with a mission to find solutions to agricultural problems that affect Americans every day from field to table. ARS will deliver cutting-edge, scientific tools and innovative solutions for American farmers, producers, industry, and communities to support the nourishment and well-being of all people; sustain our nation's agroecosystems and natural resources; and ensure the economic competitiveness and excellence of our agriculture. The vision of the agency is to provide global leadership in agricultural discoveries through scientific excellence.

Research Project: The Foreign Arthropod-Borne Animal Diseases Research Unit uses existing and new molecular biological technologies to understand the virus-host-vector interactions of insect-transmitted viruses affecting livestock. The specific mission is to identify and understand exotic/ transboundary arthropod-borne disease challenges in U.S. livestock. This includes infecting, monitoring and determining infection and transmission rates of vector insects and/or host under various experimental



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conditions. These analyses will include state-of-the art vector and animal models along with CRISPR/CAS knock-down cell lines, virus reassortant studies with molecular analysis including next generation sequencing and transcriptomics. The participant will join the highly collaborative team as a fellow to conduct research to support the overall research goals related to Rift Valley fever virus.

Learning Objectives: These studies expand the participant's knowledge of molecular tools used to investigate virus-host and/or virus vector interactions. The participant will also learn or gain additional experience in BSL-3, BSL-3 Ag, and ACL-3 containment safety protocols which are required for some of these studies. Opportunities will be available to learn how to perform virus-vector experiments and develop analytical methods for identification of host genes and virus reassortants associated with arbovirus infection in mosquitoes and livestock. There are international field projects ongoing which will allow the participant an opportunity expand their scientific network. In addition, the participant will be encouraged to attend national and potentially international scientific meetings to gain experience presenting data.

Mentor(s): The mentors for this opportunity are Dr. Chad Mire (chad.mire@usda.gov) and Dr. Juergen Richt (jricht@vet.k-state.edu). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 2024/2025. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for two years, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the [Guidelines for Non-U.S. Citizens Details page](#) of the program website for information about the valid immigration statuses that are acceptable for program participation. Foreign national candidates may have a mandatory in-person requirement depending on visa status.

ORISE Information: This program, administered by 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 ARS. Participants do not become employees of USDA, ARS, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

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Questions: Please visit our [Program Website](#). After reading, if you have additional questions about the application process, please email ORISE.ARS.Plains@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a doctoral degree in the one of the relevant fields. Degree must have been received within the past five years, or anticipated to be received by Summer 2025.

Preferred Skills:

- Previous experience in in computational biology and statistics
- Previous experience with infectious animal disease research and/or vector biology.
- Previous experience with research under high biosecurity (BSL-3 and higher).
- Previous experience in genomic analyses of non-model organisms
- Excellent written and oral communication skills
- Previous experience in team and collaborative scientific environments

Point of Contact [Shantra Joynes](#)

- Eligibility Requirements**
- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([11](#) )

Affirmation I affirm that:

I am a US Citizen, OR;
I am a non-US citizen currently living in the United States