

Opportunity Title: USDA-ARS Animal Virology/Immunology Research Training Fellowship

Opportunity Reference Code: USDA-ARS-PA-2026-0320

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PA-2026-0320

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

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

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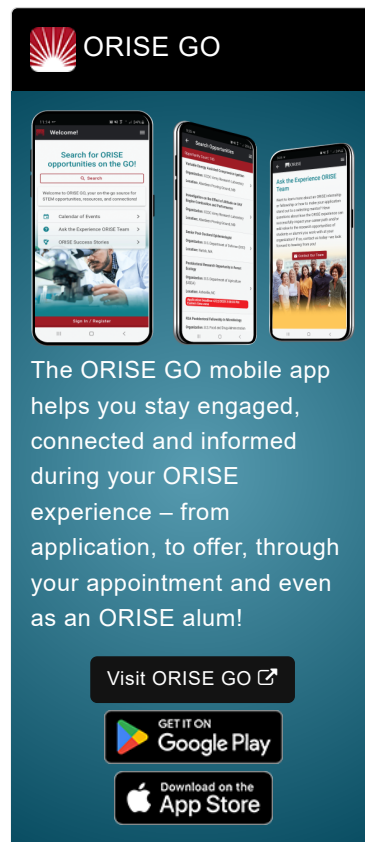
Application Deadline 10/23/2026 3:00:00 PM Eastern Time Zone

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), located in Manhattan, KS.

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.

The National Bio and Agro-Defense Facility (NBAF) in Manhattan, KS is a state-of-the-art facility operated by the U.S. Department of Agriculture (USDA) that is designed to help protect the nation's agriculture, farmers and citizens against the threat and potential impact of serious animal diseases. The Foreign Animal Diseases Research Unit (FADRU) at NBAF develops novel strategies and countermeasures to control Foreign Animal Diseases (FADs) of livestock. Specifically, the research program focuses on foot-and-mouth disease, classical swine fever, and African swine fever.



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Research Project: FADRU has opportunities for post-graduate research scientists interested in training fellowships conducting research in animal virology and immunology. You will have training opportunities in virus isolation, propagation, and titration; design and preparation of vaccines; determination of serum antibody titers using virus neutralization assays and/or ELISAs; evaluation of vaccine potency and efficacy in swine and cattle; and use of molecular and cellular techniques such as recombinant DNA technology, DNA sequencing, real time PCR, protein expression, tissue culture, construction of recombinant virus, Western blotting, light and fluorescence microscopy, and flow cytometry. You may also have opportunities to use our in-house high-throughput and Big Data facilities for RNA-seq, scRNA-seq, microarray analysis, and bioinformatics including high-performance computation. You will participate in the research project under the mentorship and guidance of the Research Scientists of FADRU.

Learning Objectives: During this appointment, you will:

- Develop proficiency in virus isolation, propagation, and titration techniques.
- Acquire skills in vaccine design, formulation, and preparation.
- Understand how to measure serum antibody responses using virus neutralization assays and ELISAs.
- Learn how to evaluate vaccine potency and efficacy in swine and cattle models.
- Understand how to apply molecular and cellular biology methods including recombinant DNA technology, DNA sequencing, real-time PCR, protein expression, and tissue culture.
- Gain experience in constructing recombinant viruses and performing Western blot analyses.
- Hone your microscopy techniques including light and fluorescence microscopy.
- Learn how to perform cell-based analyses using flow cytometry.
- Learn how to utilize high-throughput technologies such as RNA-seq, single-cell RNA-seq, and microarray analysis.
- Understand how to conduct bioinformatics analysis using high-performance computing resources.
- Develop skills through mentored research under the guidance of FADRU research scientists, strengthening project design, data interpretation, and scientific communication skills.

Mentor(s): The mentor for this opportunity is James Zhu (James.Zhu@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 2026. Start date is flexible and will depend on a variety of factors.

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

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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 only.

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.

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 have received a master's or doctoral degree in one of the relevant fields (e.g. immunology, molecular biology, microbiology, and medical science). Degree should have been received within the past five years.

Stipend \$62,729.00 – \$86,019.00 Yearly

Point of Contact [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Master's Degree or Doctoral Degree received within the last 65 month(s).
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([Z](#) [👁](#))
 - **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).