Opportunity Title: USDA-ARS Fellowship in Foreign Animal Disease Modeling
Opportunity Reference Code: USDA-ARS-P-2024-0157

Organization	U.S. Department of Agriculture (USDA)
Reference Code	USDA-ARS-P-2024-0157
How to Apply	***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!

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.

Application Deadline	8/30/2024 3:00:00 PM Eastern Time Zone
Description	***Applications are reviewed on a rolling-basis, and this opportunity may close before the submission deadline.**

Lab and Location: A collaborative research opportunity is currently available within the U.S. Department of Agriculture (USDA) Agricultural Research Service (ARS) and Animal and Plant Health Inspection Service (APHIS). **This opportunity may be located at a USDA facility in Fort Collins, Colorado, or conducted through a remote or hybrid arrangement.**

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 participant will be mentored by a research team composed of staff from the ARS Foreign Animal Disease Research Unit (FADRU), APHIS Veterinary Services, and APHIS Wildlife Services to model Foot and Mouth (FMD), African Swine Fever (ASF), and other Foreign Animal Diseases (FAD). Specific focus will be given to assessing FAD introduction and spread risk within the U.S. and the role that feral swine contribute to disease transmission. This Opportunity offers an exciting opportunity to contribute to cutting-edge research in animal disease

![zintellect - climb higher]

Opportunity Title: USDA-ARS Fellowship in Foreign Animal Disease Modeling
Opportunity Reference Code: USDA-ARS-P-2024-0157

ecology, epidemiology, and modeling. Under the guidance of mentors, the participant will assist in data acquisition, processing, and analysis and develop statistical and mathematical models to describe and simulate FAD disease spread. Additionally, the participant will be encouraged to develop a scientific project that helps address FAD research gaps and leads to peer-reviewed publication.

Learning Objectives: The selected participant will have the opportunity to learn or expand skillsets over a range of computational techniques needed for modern agricultural research and data analyses, including:

1. Model Development: Gain expertise in designing and developing advanced statistical and mathematical models that can serve management planning and policy decisions related to surveillance and control of FADs.
2. Software Development: Acquire proficiency in creating and maintaining computer code in a commonly used programming language, developing functions and/or packages that can be transferred readily for use by others, developing user-friendly applications for visualization of results, and methods for open-source sharing on platforms such as GitHub to allow co-development and accessibility.
3. Publication: Develop the skills to produce and maintain reproducible analyses, publish research findings in peer-reviewed journals, and present results at scientific and stakeholder group meetings.
4. Collaboration: Collaborate effectively with interdisciplinary teams, including other researchers, veterinarians, and stakeholders, to address complex questions in FAD disease management.

Mentor(s): Co-mentors for this opportunity include Dr. John Humphreys (ARS FADRU), Dr. Kimberly Pepin (APHIS WS), Dr. Timothy Smyser (APHIS WS), Dr. Kurt Vercauteren (APHIS WS), Dr. Ryan Miller (APHIS VS), and Dr. Vienna Brown (APHIS WS). Please contact Dr. Kimberly Pepin (kim.m.pepin@usda.gov) for questions about this opportunity.

Anticipated Appointment Start Date: September 2024. 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.

Level of Participation: The appointment is full time, but arrangement for reduced hours to accommodate coursework, etc., is possible if agreed to and supported by the participant's mentor.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. **The anticipated stipend range is approximately $62,107- $74,361 annually.**

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 must have received a Doctoral Degree (PhD preferred, DVM considered with advanced training) in a relevant field before the start date of their appointment.

Preferred skills:

- Proficiency in using at least one common programming language (e.g., C++, Matlab, R, Python, etc.).
- Demonstrated skills in developing statistical approaches for analyzing simulation data.
- Proficiency in preprocessing and analyzing spatial and temporal data in a common programming language.
- Knowledge of software development workflows and use of GitHub software for managing code.
- Knowledge of animal movement analysis or population ecology.
- Knowledge of epidemiological analysis or disease modeling.
- Ability to effectively collaborate with others.
- Demonstrated strong oral and written communication skills.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 9/30/2024 12:00:00 AM.
- **Discipline(s):**
  - **Computer, Information, and Data Sciences** (5 👁)
  - **Earth and Geosciences** (21 👁)
  - **Environmental and Marine Sciences** (14 👁)
  - **Life Health and Medical Sciences** (11 👁)
  - **Mathematics and Statistics** (11 👁)
  - **Social and Behavioral Sciences** (1 👁)