Opportunity Title: USDA-APHIS HPAI Modeling in Livestock
Opportunity Reference Code: USDA-APHIS-2026-0407

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-APHIS-2026-0407

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 1/1/2027 3:00:00 PM Eastern Time Zone

Description ***Applications are reviewed on a rolling-basis and applications may close before the deadline.**

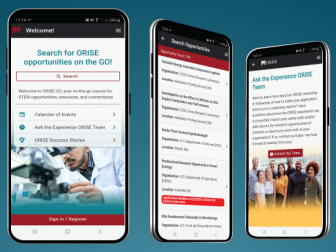
APHIS Office/Lab and Location: A research opportunity is currently available with the U.S. Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), located in Fort Collins, Colorado.

The Animal and Plant Health Inspection Service (APHIS) is a multi-faceted Agency with a broad mission area that includes protecting and promoting U.S. agricultural health, regulating genetically engineered organisms, administering the Animal Welfare Act and carrying out wildlife damage management activities. These efforts support the overall mission of USDA, which is to protect and promote food, agriculture, natural resources and related issues. APHIS' mission also includes addressing issues such as wildlife damage and disease management; regulation of genetically engineered crops and animal welfare; and protection of public health and safety as well as natural resources that are vulnerable to invasive pests and pathogens.

Research Project: You will learn how to develop and refine data-driven models to better characterize cattle herds with prolonged HPAI detection and improve understanding of disease dynamics and response strategies.

Learning Objectives: The fellowship will provide opportunities for you to explore how functional analytical tools are applied to support national programmatic decisions and policy. Under the guidance of your mentor, you

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may have the opportunity to:

- **Collaborate with scientists and decision-makers** to collect and integrate field data for development of highly pathogenic avian influenza (HPAI) risk models and analytical tools that inform cattle-health program decisions.
- **Develop skills in evaluating diagnostic-test performance** and interpreting its implications for disease detection, surveillance design, and disease-management strategies.
- **Gain experience analyzing risk-based surveillance approaches** and quarantine-release strategies to support effective disease monitoring, response, and control efforts.

Mentor: The mentor for this opportunity is Katie Portacci (katie.portacci@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: January 2027. 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 extended upon recommendation of USDA APHIS and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Citizenship Requirements: This opportunity is available to U.S. citizens.

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 APHIS. Participants do not become employees of USDA, APHIS, 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 USDA-APHIS@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received or be currently pursuing a master's or doctoral degree in one of the relevant fields (e.g. Statistics, Biostatistics, Epidemiology, Ecology, Operations Research, Biology, Veterinary Medicine).

Preferred skills:

- Experience in biological and population (or epidemiological) modeling, including infectious disease and ecological applications.
- Strong quantitative skills in Bayesian statistics and regression modeling in an applied setting (e.g. diagnostic test evaluation).

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- Experience with study design, observational and experimental, applied in wet lab and field work contexts
- Proficiency in R, GitHub, and Bayesian computational methods using MCMC frameworks (e.g., JAGS, STAN, NIMBLE).

Stipend $64,000.00 – $90,000.00 Yearly

Point of Contact Michele

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree.
- **Discipline(s):**
  - **Communications and Graphics Design** (2)
  - **Computer, Information, and Data Sciences** (4)
  - **Earth and Geosciences** (1)
  - **Engineering** (3)
  - **Environmental and Marine Sciences** (3)
  - **Life Health and Medical Sciences** (17)
  - **Mathematics and Statistics** (11)