

Opportunity Title: USDA-ARS Virology Postdoctoral Research Opportunity in Influenza A Virus (IAV)

Opportunity Reference Code: USDA-ARS-MW-2023-0112

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MW-2023-0112

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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.

Application Deadline 5/26/2023 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

ARS Office/Lab and Location: A research opportunity in virology is available with the U.S. Department of Agriculture Agricultural Research Service (ARS) in the Virus and Prion Research Unit at the National Animal Disease Center (NADC) located in Ames, Iowa.

The NADC is a flagship ARS laboratory facility conducting animal health research. The 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. **For an introduction to the Flu crew at the National Animal Disease Center, please see:** <https://youtu.be/kOJy8tFuil>

Research Project: The participant will investigate dynamics of influenza A virus (IAV) at human and swine interfaces through antigenic and phenotypic characterization of swine IAV in support of a contract between USDA-ARS and the University of Pennsylvania Center for Excellence in Influenza Research and Response (CEIRR), which is part of the NIH NIAID CEIRR collaborative network. Specific goals are to quantify antigenic evolution of IAV from swine, define the global relatedness of IAV in swine and humans, investigate the pathogenesis and transmission of emerging IAV in the swine host and between host species, and identify key predictors of the pandemic risk of swine IAV. The opportunity is within the Intervention Strategies to Prevent and Respond to IAV Infections in Swine project in the Virus and Prion Research Unit of the NADC. Scientists in this unit maintain a comprehensive IAV research program including investigation of virulence



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mechanisms, vaccinology, immunology, and virus evolution. Under the guidance of a mentor, the participant will be engaged in execution of technical methods, experimentation and procedures, collecting and analyzing results, maintaining physical and electronic data, and reporting findings via written and oral communications. The participant will interact as a team member with the scientists and other laboratory staff in all phases of the research process.

Learning Objectives: The participant will collaborate with the mentor, scientists and other laboratory staff in all phases of the research process (conception, study design, execution, analysis, interpretation, and scientific communication). The participant will advance their knowledge in virology, animal models for infectious disease research, laboratory operations and techniques, virus evolution, and work in a team-oriented, multi-disciplinary influenza A virus research environment. The participant will have the opportunity to attend and present at local and/or national meetings and publish in peer reviewed journals upon acceptance of research results.

Mentor: The mentor for this opportunity is Amy Baker (amy.l.baker@usda.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: August 1, 2023. 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 an additional year 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.

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.Midwest@oraui.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree (Ph.D. or DVM) in one of the relevant fields, or be currently pursuing the degree with completion before the appointment start date. Degree must have been received within the past five years.


Preferred skills:

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- Experience in research techniques
- In depth knowledge of virology and molecular biology techniques, veterinary medicine, and the use of animal models for infectious disease research
- Skilled in the performance of virologic, molecular biologic, and immunologic laboratory assays, including but not limited to cell culture, microscopy, sequence analysis, and serologic assays
- Demonstrated technical writing in peer-reviewed publications, public speaking, and interpersonal skills to work in a team environment

**Eligibility
Requirements**

- **Degree:** Doctoral Degree.
- **Discipline(s):**
 - **Life Health and Medical Sciences** ([8](#) )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).