

Opportunity Title: USDA-ARS Fellowship in Prion Disease Research

Opportunity Reference Code: USDA-ARS-MWA-2025-0175

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MWA-2025-0175

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 2/13/2026 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 at the Virus and Prion Research Unit, National Animal Disease Center, 1920 Dayton Avenue, Ames, Iowa 50010.

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 USDA-ARS's [National Animal Disease Center \(NADC\)](#) comprises 4 research units: food safety and enteric pathogens, infectious bacterial diseases, ruminant disease and immunology, and virus and prion diseases supported by facilities with advanced biosafety levels and housing for various animals. NADC conducts basic and applied research on economically important diseases affecting U.S. livestock and poultry to generate knowledge and technology that reduces economic losses, prevents foodborne illnesses, and decreases animal suffering and

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death.

Our prion research program at Virus and Prion Research Unit investigates prion diseases across multiple species, including Bovine Spongiform Encephalopathy (BSE), Chronic Wasting Disease (CWD), Scrapie, and emerging camel prion diseases. The fellow will receive hands-on training and mentorship while contributing to high-impact studies that combine cell-based systems, transgenic/gene-targeted mouse models, and natural hosts (cattle, deer, and sheep). **Note:** Research activities will be conducted in **BSL-2+ laboratories**.

Learning Objectives: Under the guidance of a mentor, the participant will gain experience in:

- Animal studies: mouse and large animal inoculation, tissue sampling, necropsy techniques
- Molecular biology: genomic DNA extraction, PCR, gene cloning, CRISPR/Cas genome editing
- Cell biology & protein biochemistry: mammalian cell culture, Western blot, ELISA, ELISPOT.
- Pathology: H&E and IHC
- Prion biology methods: in vitro protein seeding assays (RT-QuIC and PMCA), protein conformational stability assays, and prion strain characterization.

Professional Development Opportunities:

- Learn about prion diseases
- Present research findings at group meetings and center-wide seminars
- Build technical expertise and professional experience highly relevant to veterinary, medical, or graduate training
- Collaborate with Iowa State University toward completion of a PhD degree

Mentor(s): The mentors for this opportunity are Jianqiang Zhang (Iowa State University) (jqzhang@iastate.edu) and Jifeng Bian (USDA) (jifeng.bian@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: **As soon as possible.** 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.

Participant Stipend: The participant will receive a monthly stipend (\$2,400 – \$3,000) commensurate with educational level and experience. A health insurance stipend supplement and travel/research allowance is offered.

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

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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@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should be pursuing or have received a bachelor's master's, or doctoral degree in one of the relevant fields (Biology, Biochemistry, Cellular and Molecular Biology, Neuroscience, Veterinary Science, Veterinary Microbiology, Artificial Intelligence, or related field). Degree must have been received within the past five years or be currently pursuing.

Preferred skills:

- Prior biomedical laboratory or animal-handling experience; comprehensive training will be provided
- Strong oral and written communication skills
- Ability to effectively collaborate and get along with others
- Detail-oriented, dedicated, and highly motivated

Stipend \$2,400.00 – \$3,000.00 Monthly

Point of Contact [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
 - **Discipline(s):**
 - **Computer, Information, and Data Sciences** ([1](#) )
 - **Life Health and Medical Sciences** ([24](#) )