Opportunity Title: USDA-ARS Postdoctoral Fellowship - Leveraging the Microbiome to Improve Swine Growth
Opportunity Reference Code: USDA-ARS-NEA-2025-0025A

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NEA-2025-0025A

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 6/6/2025 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 Beltsville, Maryland.

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: As antimicrobial resistance becomes a more significant problem worldwide, the USDA is actively investigating alternatives to antibiotics in swine that promote growth performance and disease resistance. The participant will use their education in microbiology and bioinformatics to collaborate in a multidisciplinary team of animal scientists, physiologists, and bioinformaticians to help research in determining the mechanisms by which the microbiome contributes to swine growth. There will be opportunities to perform cell culture experiments in the lab and to analyze microbiome datasets to help identify microbial taxa, genes, and

pathways associated with improved swine growth.

Learning Objectives:

- Learn to isolate bacteria and fungi of interest from the swine GI tract
- Learn to co-culture isolated microbes to understand microbe-microbe interactions in the swine gut
- Learn to co-culture microbes with IPEC-J2 cells to understand microbe-swine interactions

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

Anticipated Appointment Start Date: 2025. 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 commensurate with educational level and experience. **The anticipated stipend range is $82,764- $88,281 annually.**

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. Foreign national candidates may have a mandatory in-person requirement depending on visa status.

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

Qualifications The qualified candidate should have received or be currently pursuing a doctoral degree in one of the relevant fields (e.g. Microbiology, Animal Science, or related field). Degree must have been received within the past

five years, or be currently pursuing.

Preferred Skills/Experience:

- At least 2 years of experience in the study of the microbiome in animal hosts. Graduate courses should preferably include those in bacterial genomics, microbiology, and/or animal physiology.
- Proficiency in English as evidenced by high scores on TOEFL are preferred, as well as strong communication skills to facilitate collaboration in a multidisciplinary team.

Point of Contact Janeen

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Minimum Overall GPA:** 3.50
- **Discipline(s):**
  - **Life Health and Medical Sciences** (7 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).

Affirmation I affirm that:

I am a US Citizen, OR;
I am a non-US citizen currently living in the United States