

Opportunity Title: USDA-ARS Postdoctoral Research - Detection and Molecular Characterization of Foodborne Pathogens

Opportunity Reference Code: USDA-ARS-NEA-2026-0289

Organization U.S. Department of Agriculture (USDA)

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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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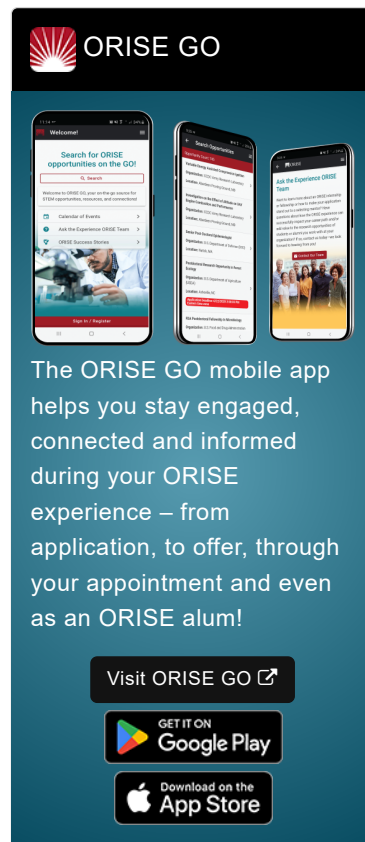
Application Deadline 9/25/2026 11:55:00 PM Eastern Time Zone

Description ***Applications are reviewed on a rolling-basis.**

ARS Office/Lab and Location: A postdoctoral research opportunity focused on the development of novel detection methods for foodborne pathogenic bacteria is available at the USDA, Agricultural Research Service, Eastern Regional Research Center, Characterization and Interventions for Foodborne Pathogens (CIFP) Research Unit in Wyndmoor, Pennsylvania.

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 mission of the CIFP research unit is to investigate multiple areas of safety-related problems associated with contamination of food by bacterial pathogens and includes: stress response, evolution/mutation, biofilm formation, antimicrobial resistance, intervention techniques, and rapid detection & identification. The research project of this subgroup focuses on the latter in the development of rapid detection and/or identification/confirmation methods for specific foodborne pathogenic bacteria (e.g., Shiga toxin-producing E. coli, Salmonella, Listeria



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monocytogenes, *Campylobacter*). Analysis is typically complicated by the complex nature of food matrices and the frequent need to detect very low numbers of targeted pathogens amongst relatively high numbers of background flora. In addition, culture enrichment is expected to be avoided as both increased cost and lengthy analysis times are prohibitive.

We are seeking a fellow that will be trained in performing research and development focused on one or more advanced areas of interest (e.g., molecular microbiology, food microbiology, bioinformatics) to this particular subgroup.

Learning Objectives: During the appointment, you will;

- Learn about food safety research related to contamination of food by bacterial pathogens.
- Gain exposure to research areas including stress response, evolution and mutation, biofilm formation, antimicrobial resistance, intervention strategies, and rapid pathogen detection.
- Participate in projects focused on the development of rapid detection, identification, and confirmation methods for foodborne pathogens such as Shiga toxin-producing *E. coli*, *Salmonella*, *Listeria monocytogenes*, and *Campylobacter*.
- Develop an understanding of analytical challenges associated with complex food matrices and detection of low levels of pathogens in the presence of background microbial flora.
- Develop skills in evaluating approaches designed to reduce or eliminate culture enrichment steps in order to improve testing speed and cost efficiency.
- Gain experience with microbiological and analytical techniques used in food pathogen detection and food safety research.
- Contribute to efforts aimed at improving rapid, accurate, and practical methods for foodborne pathogen monitoring and identification.

Mentor(s): The mentor for this opportunity is

Yiping He (yiping.he@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: December 2026. 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 is \$6,857 monthly**

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

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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.Northeast@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should be currently pursuing or have received a doctoral degree in the one of the relevant fields.

Preferred skills:

- Molecular biology techniques
- Whole-genome sequencing and bioinformatic data analysis
- Rapid method development and validation
- Sample preparation for food safety analysis

Point of Contact [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree.
 - **Discipline(s):**
 - **Life Health and Medical Sciences** ([10](#) )