

Opportunity Title: USDA-ARS Food Pathogen Research Fellow **Opportunity Reference Code:** USDA-ARS-NEA-2024-0331

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NEA-2024-0331

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 <u>here</u> 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
- A copy of an abstract or reprint of an article

All documents must be in English or include an official English translation.

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Application Deadline 12/6/2024 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 Wyndmoor, Pennsylvania.

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific inhouse 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: Eastern Regional Research Center (ERRC) conducts fundamental, applied and developmental research on a broad spectrum of agricultural commodities with the following major thrusts: i) chemical and microbial food safety and food preservation technologies, ii) sustainable bioenergy and agricultural practices, iii) advanced dairy and food processing technologies, iv) edible films and active packaging technologies, v) bioactive ingredients and functional foods, and vi) biobased products. At ERRC, we strive to develop new knowledge and technologies, and we transfer our scientific discoveries to stakeholders and clients in both private and public sectors through strategic partnerships.

Learning Objectives: The participant will gain knowledge in determining the ecological niches, persistence, and physiological responses that are initiated by pathogens as affected by food. Generating data on the origin, succession, enumeration, and genetic constitution of target pathogens will shed insight on the true prevalence and load of target pathogens in our food supply.





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In turn, this will inform our concurrent efforts to inhibit, control, or otherwise destroy undesirable microbes directly in/on foods and feed, as well as to better protect consumers against foodborne illness.

The participant will learn about the preparation and inoculation of raw, further processed, and/or ready-to-eat (RTE) foods inoculated with target pathogens, notably *Listeria monocytogenes*, *Salmonella*, and *Shiga* toxin-producing *Escherichia coli*, as well as avian influenza virus. Pathogen fate will be monitored during processing and storage of inoculated foods in response to biological, chemical, and physical interventions. Participant will have the opportunity to learn the theory and practice of monitoring pathogen presence, persistence, and control in foods. This opportunity will increase participant's knowledge, skills, and abilities related to microbiological and molecular analyses of pathogens under food relevant conditions, give experience with conducting multi-disciplinary, multi-institutional research, and allow the development of relationships with food safety professionals in government, academia, and industry.

Mentor(s): The mentors for this opportunity is John Luchansky (<u>john.luchansky@usda.gov</u>), 215-498-7476 and Anna Portofett (<u>anna.portofet@usda.gov</u>). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: December 2024. 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 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.

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 <u>Guidelines</u> <u>for Non-U.S. Citizens Details page</u> 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 <u>Program Website</u>. After reading, if you have additional questions about the application process, please email <u>ORISE.ARS.Northeast@orau.org</u> and include the reference code for this opportunity.

Qualifications The qualified candidate should be pursuing or have received a doctoral degree in one of the relevant fields with anticipated degree completion prior to start date.

Preferred skills:

- Food microbiology
- Food technology
- · Food safety



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- Molecular biology
- Food Science
- Bacteriology
- Eligibility Degree: Doctoral Degree.
- Requirements Discipline(s):
 - Life Health and Medical Sciences (<u>10</u>)