

Opportunity Title: USDA-ARS SCINet/AI-COE Postdoctoral Fellowship in AI-Driven Solutions for Food Safety

Opportunity Reference Code: USDA-ARS-SCINet-2026-0369

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.

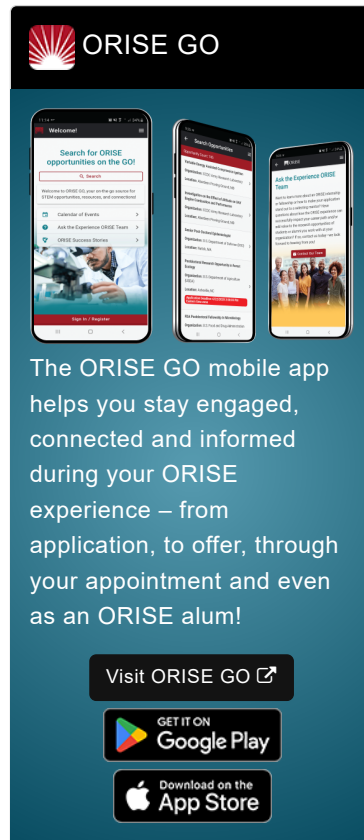
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Application Deadline 12/4/2026 3:00:00 PM Eastern Time Zone

Description ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), Eastern Regional Research Center (ERRC) located 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 delivers 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.

ARS's SCINet/Artificial Intelligence (AI) Center of Excellence Research Participation Program offers research opportunities to motivated postdoctoral fellows interested in solving agriculture-related problems at a range of spatial and temporal scales, from the genome to the continent, and sub-daily to evolutionary time scales. One of the goals of the SCINet Initiative is to develop and apply new technologies, including AI and machine learning (ML), to help solve complex agricultural problems that also depend on collaboration across scientific disciplines and geographic locations. In addition, many of these technologies rely on the synthesis,



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integration, and analysis of large, diverse datasets that benefit from high-performance computing (HPC). The objective of these fellowships is to facilitate cross-disciplinary, cross-location research through collaborative research on problems of interest to each applicant and amenable to or requiring HPC resources. Training will be provided in data science, scientific computing, AI/ML, and related topics as needed for the fellow to complete their research. Additional funds are available for supplies and travel essential for the fellow's research.

Research Project: Under the guidance of a mentor, you will conduct research on non-targeted analysis of per- and polyfluoroalkyl substances (PFAS) in food, food contact materials, and agricultural samples. Throughout the course of this research project, you will gain experience in developing machine learning tools for the identification and analysis of unknown PFAS, supporting agricultural research and advancing the ARS mission. The project will involve compiling high-resolution mass spectrometry (HRMS) databases for PFAS, creating machine learning models trained on high-quality standards across diverse PFAS classes, and validating prediction accuracy and error rates. These tools will then be applied to real-world agricultural samples to detect previously unreported PFAS, contributing to enhanced food safety.

Learning Objectives: Under the guidance of a mentor, you will learn to conduct research in the food safety arena, develop novel advanced analytical techniques for food safety monitoring, and evaluate the analytical performance aspects of different types of advanced instrumentation. Additionally, you will learn about a wide range of activities related to organizational and operational planning and science communication in support of SCINet and the ARS AI Center of Excellence (AI-COE). You will also have the opportunity to take online courses in scientific topics, such as R, Python, and statistics, and to learn collaboration and leadership skills through workshop and group experience.

USDA-ARS Mentor: If you have questions about the nature of the research, please contact Yelena Sapozhnikova, ARS/USDA, Yelena.sapozhnikova@usda.gov.

Anticipated Appointment Start Date: 2027. 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 for a second year upon recommendation of the mentor and ARS.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant(s) will receive a monthly stipend commensurate with educational level and experience. **The current stipend range for this opportunity is \$100,000 - \$110,000/year plus a supplement to offset health insurance costs.** Funding is also available to help offset relocation costs, if applicable.

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

- Advanced knowledge of high-resolution mass spectrometry (HRMS)
- Experience in non-targeted analysis, data handling and analysis, including proficiency in R and Python
- Strong problem-solving skills
- Experience developing, testing, and refining machine learning models
- Excellent written and oral communication skills
- Experience with publishing in peer-reviewed journals

Stipend \$100,000.00 – \$110,000.00 Yearly

Point of Contact [Janeen](#)

- Eligibility Requirements**
- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([5](#) 