Opportunity Title: USDA-ARS Postdoctoral Fellowship – Food Sensory Science
Opportunity Reference Code: USDA-ARS-MWA-2026-0282

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MWA-2026-0282

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

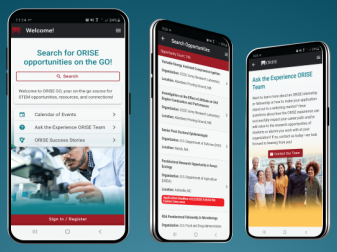
Description ***Applications are reviewed on a rolling-basis.**

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 Peoria, Illinois.

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.

The Functional Foods Research (FFR) unit in Peoria, Illinois aims at developing bioactive food ingredients that provide health benefits; and creating value-added food and nonfood products from low value agricultural resources. Scientists at FFR develop new processing, chemical, physical, and enzymatic technologies to modify food plants and enhance the use and performance of agricultural materials.

Research Project: You will be a part of a collaborative research team focused on the improvement of healthfulness and shelf life of foods containing fats and oils. Many processed foods have high saturated fat content and healthy saturated fat replacements are needed to

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improve their nutritional value. However, oils high in polyunsaturated fats are more liquid at room temperature leading to technological challenges to their use in food products. They are also more easily oxidized, resulting in a shorter shelf life resulting in food waste. This research project has two main objectives: the first is to develop oleogels that mimic the texture and melting properties of natural fats to replace saturated fats in foods; the second is to develop new natural antioxidants, antioxidant combinations, and superhydrophobic coatings, to prevent lipid oxidation. You will collaborate with chemists, food scientists, material scientists, plant scientists, and food engineers to build a comprehensive understanding of the relationships between sensory properties of foods and fat replacements and their chemical, physical, and rheological properties. You will have access to a state-of-the-art pilot plant for seed and food processing, a sensory lab, and advanced analytical instrumentation such as GC-MS, HPLC, texture analyzers, rheometers, FT-IR spectrometers, zeta potential and particle size analyzers, differential scanning calorimeters, and SEM. Hands-on training will be provided in screening, training, and designing sensory descriptive panels, as well as on using advanced instrumentation to evaluate physical, chemical, and rheological properties of foods developed with oleogel-based fat replacements and/or shelf life of foods developed with natural antioxidants.

Learning Objectives: Under the guidance of a USDA-ARS mentor scientist, you will have the opportunity to learn to:

- Screen and train an in-house descriptive sensory panel;
- Design descriptive sensory panel tests for evaluation of food products;
- Evaluate physical, chemical, and rheological properties of food products developed with oleogel-based saturated fat replacements;
- Evaluate shelf life of foods with natural antioxidants;
- Analyze results of sensory evaluations
- Evaluate how sensory characteristics correspond and/or correlate with physical and chemical analyses

Mentor(s): The mentor for this opportunity is Jill Moser (jill.moser@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 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 range is $74,678 annually. The stipend is supplemented with a monthly allowance for health insurance and up to $3,000 in assistance for moving expenses.**

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

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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 currently pursuing or have received a doctoral degree in the one of the relevant fields. Degree must have been received within the past one year, or anticipated to be received by 9/30/2026.

Preferred skills

- Knowledge of food chemistry, sensory analysis, food microbiology/food safety, and food engineering
- Experience in designing, running, and evaluating data from descriptive or consumer sensory panels for food evaluation
- Basic cooking/baking skills
- Experience with physical and chemical analyses relevant to food and nutrition

Stipend $74,678.00 Yearly

Point of Contact Michele

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 12 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (5 👁)
  - **Life Health and Medical Sciences** (4 👁)