Opportunity Title: USDA-ARS Fellowship for Developing New Phenotyping Techniques and Genetic Analysis
Opportunity Reference Code: USDA-ARS-MWA-2026-0005

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-MWA-2026-0005

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 3/13/2026 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 Madison, Wisconsin.

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 mission of the Vegetable Crops Research Unit is to improve potato, carrot, onion, cucumber, and cranberry crop production and quality through germplasm preservation, characterization, enhancement, and release; investigations of crop genetics, taxonomy, gene flow, disease and pest resistance, postharvest storage physiology, abiotic stress resilience, flavor and nutritional quality; and development of molecular tools, pest management and plant breeding strategies.

Research Project: This appointment is supported by the USDA-ARS

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Vegetable Crop Research Project in Madison, WI. This fellow will participate in research developing new techniques for evaluating plant chemical composition and performing genetic analysis of carrot nutrients and anti-nutrients, plant growth, pest and disease resistance. Activities include periodic travel to field sites within the U.S.

Learning Objectives: Specific learning objectives include searching the literature pertinent to research underway; growing, collecting and evaluating plant samples; using a variety of specialized equipment including HPLC/GCMS, PCR, and ICP-MS; and generating and evaluating genome sequencing data with various bioinformatic tools.

During this fellowship, the participant will be able to:

1. Develop an understanding of how genetic analyses can be used to study the inheritance of plant chemical composition and plant disease resistance;
2. Develop hypothesis-based research plans to study plant development and disease attack;
3. Learn advanced statistical analytical techniques to evaluate genetic and genomic data;
4. Develop plant phenotyping techniques to gather detailed information on crop production traits; and
5. Participate in carrot germplasm enhancement for release to stakeholders.

Mentor: The mentor for this opportunity is Dr. Philipp Simon (philipp.simon@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: As soon as possible. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will be one year, but may be extended 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 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

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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 bachelor's or master's degree in the one of the relevant fields.

Preferred skills:

- Knowledge of genetics, plant breeding, molecular biology, and/or biotechnology
- Knowledge of statistical and bioinformatics tools applicable to conducting genomic and genetic experiments
- Experience in micropipetting and PCR
- Experience in plant propagation and seed production
- Ability to plan and conduct research experiments to understand genetics underlying traits of interest
- Ability to perform statistical analysis of experimental data, and conduct bioinformatic analysis of genome sequencing data
- Experience in the analysis of high throughput genotyping or phenotyping data is a plus

Point of Contact Janeen

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree or Master's Degree.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (8 👁)