Opportunity Title: USDA-ARS Postdoctoral Fellowship in Plant-Pathogen-Vector Interactions
Opportunity Reference Code: USDA-ARS-HQ-2026-0044

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-HQ-2026-0044

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 3/27/2026 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 Wapato, Washington.

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 selected participant will be hosted at the Temperate Tree Fruit and Vegetable Research Unit (TTFVRU). The TTFVRU conducts research in three areas: 1) biology and management of pests and pathogens of tree fruits, 2) biology and management of pests and pathogens of potato, and 3) potato germplasm improvement. The Research Unit maintains strong collaborations with Washington State University, Oregon State University, and University of Idaho. https://www.ars.usda.gov/pacific-west-area/wapato-wa/temperate-tree-fruit-and-vegetable-research/.

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Research Project: The postdoctoral fellow will engage in innovative research on symbiont technology—a cutting-edge approach that uses *Agrobacterium* to deliver antimicrobial peptides (AMPs) into plant phloem, aiming to combat fastidious phloem-limited pathogens such as '*Candidatus* Liberibacter solanacearum.' This research addresses critical challenges in plant health and sustainable agriculture. Research will span multiple disciplines, including plant pathology, entomology, plant biology, and molecular biology. The fellow will design and execute experiments in both laboratory and greenhouse settings, analyze complex datasets, and contribute to collaborative projects involving USDA-ARS Research Units and partner institutions. In addition to hands-on research, the fellow will have opportunities to present findings at regional and national scientific conferences and stakeholder meetings, publish results in high-impact, peer-reviewed journals, and engage with a multidisciplinary team to learn about solutions for major agricultural threats. This fellowship offers a unique chance to develop expertise at the intersection of molecular biology and applied plant science while contributing to innovations for global food security.

Learning Objectives: Under the guidance of a mentor, the postdoctoral fellow will learn about and gain experience in:

- Designing, conducting, and analyzing greenhouse experiments
- Molecular engineering of *Agrobacterium*-induced galls
- Biology and behavior of insect vectors of plant pathogens
- Molecular diagnosis of fastidious insect-vectored and phloem-limited plant pathogens, including *Candidatus* Liberibacter solanacearum and *Ca.* Phytoplasma pruni
- Collaborating effectively within a multidisciplinary and multi-institutional team
- Preparing and submitting manuscripts to peer-reviewed journals
- Preparing and presenting presentations at scientific and stakeholder meetings

Mentor(s): The mentor for this opportunity is Rodney Cooper (rodney.cooper@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: April 1, 2026. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will be for two years.

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 $6,000 - $7,000 monthly.**

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

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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.HQPostdoc@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in entomology, plant pathology, plant biology, molecular biology, or related field. Degree must have been received within the past four years or is anticipated to be received by April 1, 2026.

Preferred skills

- Foundational background in plant-insect-pathogen interactions
- Familiarity with basic molecular biology techniques

Stipend $6,000.00 – $7,000.00 Monthly

Point of Contact Janeen

Eligibility Requirements

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