Opportunity Title: USDA ARS Postdoc in Fungal Pathogen Detection and Control
Opportunity Reference Code: USDA-ARS-PWA-2026-0002

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PWA-2026-0002

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), Physiology and Pathology of Tree Fruit Research Lab, located at a workstation in Hood River, Oregon.

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.

Research Project: Pears, a ~$400M U.S. crop, constitute a significant economic crop for multiple states in the U.S., particularly Washington, Oregon, and California. *Mucor piriformis* (Mucor rot) can cause significant annual cold chain losses, reducing profit and, ultimately, pear industry viability. There are currently few effective control strategies for this disease. This project will develop validated quantification methods, pathogen resources, and control strategies, advancing the goals of the National Farm Security Action Plan to protect producers, safeguard rural economies, and

preserve U.S. market access. The approach will include transcriptomics to quantify pathogen load in samples and metagenomics and bioinformatics to understand genetic diversity of the pathogen. Potential areas of research include genomic epidemiology, ecological surveillance, and ecological modeling.

Learning Objectives: Through this fellowship, the successful applicant will gain valuable hands-on experience and develop expertise in laboratory and cold chain research. The participant will have the opportunity to learn and enhance skills in the following areas:

1. Develop and validate qPCR methods for detecting in environmental and dump tank samples.
2. Understand genetic diversity of *Mucor piriformis.*
3. Learning to identify high priority geographical regions for continued sampling
4. Scientific Communication: The fellow will gain experience in disseminating research findings through peer-reviewed journal articles, technical reports, and presentations at scientific and stakeholder meetings, building skills in professional communication and knowledge sharing.

Through these project opportunities, the fellow will expand their expertise in plant pathology, molecular biology, microbiology, experimental design, statistical analysis, and scientific communication. This comprehensive training will prepare the participant for future roles in agricultural research, environmental science, and related fields.

Mentor(s): The mentor for this opportunity is John Bennett (john.bennett@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: 2026, as soon as possible. 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 $70,000 - $75,000 annually.**

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

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

Qualifications

The qualified candidate should have received or be currently pursuing a doctoral degree in one of the relevant fields (plant pathology, mycology, microbiology, or bioinformatics). Degree must have been earned within the past four years, or be pursuing to earn by 5/31/2026.

Preferred skills:

- Experience with nucleic acid extraction and metagenomics.
- Experience with RT-qPCR.
- Experience in molecular and NGS techniques for pathogen genomics as well as associated bioinformatics analyses.

Stipend

$70,000.00 – $75,000.00 Yearly

Point of Contact

Janeen

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree received within the last 48 months or anticipated to be received by 5/31/2026 11:59:00 PM.
- **Discipline(s):**
  - **Environmental and Marine Sciences** (2 👁)
  - **Life Health and Medical Sciences** (7 👁)