

Opportunity Title: USDA-ARS Investigating Aerial Spore Production by Fusarium

Wilt Pathogens

Opportunity Reference Code: USDA-ARS-PWA-2024-0278

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PWA-2024-0278

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 8/2/2024 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 Salinas, California.

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: The participant will be involved in experiments evaluating the conditions necessary for producing airborne spores by Fusarium wilt pathogens and the epidemiological impact of these spores.

Learning Objectives: The participant will have the opportunity to learn about basic plant growth in greenhouse and controlled environment facilities. There will be opportunities to learn about sterile technique, fungal culture, and basic mycology skills such as preparing and quantifying spore suspensions. The participant will learn how to make and use selective media for re-isolating Fusarium oxysporum from infected plant tissues.

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Additionally, there will be opportunities to learn and become proficient in DNA extraction, PCR, qPCR, and gel electrophoresis for identifying pathogenic strains of Fusarium oxysporum.

Mentor(s): The mentor for this opportunity is Peter Henry (<u>Peter.Henry@usda.gov</u>). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: August 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 4 months, but may be renewed upon recommendation of ARS and is contingent on the availability of funds.

Level of Participation: The appointment is part 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, Lawful Permanent Residents (LPR), and foreign nationals. Non-U.S. citizen applicants should refer to the <u>Guidelines for Non-U.S. Citizens</u> <u>Details page</u> of the program website for information about the valid immigration statuses that are acceptable for program participation.

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 <u>Program Website</u>. After reading, if you have additional questions about the application process, please email <u>ORISE.ARS.PacificWest@orau.org</u> and include the reference code for this opportunity.

- **Qualifications** The qualified candidate should be currently pursuing an associate's or bachelor's degree in the one of the relevant fields.
- Eligibility
 • Degree: Currently pursuing an Associate's Degree or Bachelor's Degree.

 Requirements
 Degree.
 - Discipline(s):
 - Chemistry and Materials Sciences (<u>12</u>)
 - Computer, Information, and Data Sciences (17. (1)
 - Earth and Geosciences (21.))
 - Life Health and Medical Sciences (51 (19)