Opportunity Title: USDA-ARS Postdoctoral Fellowship in Plant Pathology / Aflatoxin Biocontrol
Opportunity Reference Code: USDA-ARS-PW-2023-0398

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PW-2023-0398

How to Apply ***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application consists of:

- An application
- Transcripts – 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.

Description ***Applications may be reviewed on a rolling-basis.**

ARS Office/Lab and Location: A postdoctoral research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) located in Tucson, Arizona.

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 overall research goal of the lab is to develop, improve, optimize, and disseminate aflatoxin biocontrol technologies to growers. This is accomplished through a combination of laboratory and field studies aimed at understanding how biocontrol strains of *Aspergillus flavus* interact with aflatoxin-producing fungi under different biotic and abiotic conditions. The current project focuses on applied field research aimed at developing aflatoxin biocontrol application recommendations that will increase the efficacy and minimize the long-term cost of biocontrol treatments in corn.

Specific project opportunities will include:

- Design and implementation of large-scale field studies evaluating aflatoxin biocontrol treatments in commercial corn.
- Crop and soil sample collection, processing, and analysis using microbiological, molecular biological, and chemical methods to characterize fungal populations and quantify aflatoxin concentrations.
- Statistical analysis and interpretation of results from field studies.
- Opportunities to develop of aflatoxin management recommendations for corn and disseminate results through peer-reviewed journals, technical

reports, and presentations at scientific and stakeholder meetings.

Learning Objectives: The successful applicant will have the opportunity to conduct laboratory and applied field research and expand skills plant pathology, molecular biology, microbiology, experimental design, and statistical analysis.

Mentor: The mentor for this opportunity is Hillary Mehl (hillary.mehl@usda.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: January 2024. 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 current stipend range for this opportunity is $65,000 - $70,000 per year. A health insurance supplement will also be provided equal to $602 per month (or $7,226 per year).**

Citizenship Requirements: This opportunity is available to U.S. citizens and Lawful Permanent Residents (LPR).

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

Qualifications The qualified candidate should have received a doctoral degree in one of the relevant fields (e.g. Plant Pathology, Microbiology, Plant Sciences), or currently be pursuing the degree to be received by start of appointment.

Preferred Skills include:

- Desire and ability to conduct field research in agricultural settings.
- Experience using statistical software such as SAS or R.
- Experience in preparation of manuscripts for publication in peer-reviewed journals.

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Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree.
- **Discipline(s):**
  - **Life Health and Medical Sciences** (22 👁)