

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Microbiome Research in

Agricultural System

Opportunity Reference Code: USDA-ARS-PA-2024-0298

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-PA-2024-0298

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.

Application Deadline 12/20/2024 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 at North Central Agricultural Research Laboratory in Brookings, South Dakota. The research mission is to develop, document, and promote soil, crop, and pest management practices that are ecologically sustainable while maintaining producer profitability.

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 research project seeks to evaluate the effects of crop sequence within a long-term crop rotation system on soil and crop performance and crop-associated microbiome and to investigate how crop diversification practices affect crop disease resistance. Under the guidance of a mentor, the participant will be involved in microbial sequence data analyses using bioinformatic tools, identifying beneficial microbes from soil and plant rhizosphere, and compiling the research findings into manuscripts for peer-reviewed journals.

Learning Objectives: Throughout the course of this research project, the participant will have the opportunity to explore the latest trends and



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research in agricultural soil microbiology. The participant will also have active exposure to statistical data analytics using R, Python, and current bioinformatic software. The participant will gain or enhance knowledge regarding the importance of soil microbiomes in designing sustainable agricultural management practices.

Mentor(s): The mentor for this opportunity is Chuntao Yin (chuntao.yin@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

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

Appointment Length: The appointment will initially be for two years, 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 is \$70,000-\$72,000 annually.

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 Guidelines for Non-U.S. Citizens Details page 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 Program Website. After reading, if you have additional questions about the application process, please email ORISE.ARS.Plains@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. Degree must have been earned within the past five years.

- Degree: Doctoral Degree received within the last 60 month(s).
- Requirements Discipline(s):
 - Chemistry and Materials Sciences (1)
 - Computer, Information, and Data Sciences (3_@)
 - Engineering (1 <)

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- Environmental and Marine Sciences (2_●)
- Life Health and Medical Sciences (5_●)

Affirmation | affirm that:

I am a US Citizen, OR; I am a non-US citizen currently living in the United States

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