

Opportunity Title: USDA-ARS Fellowship in Plant Pathology

Opportunity Reference Code: USDA-ARS-NE-2023-0465

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-NE-2023-0465

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
- 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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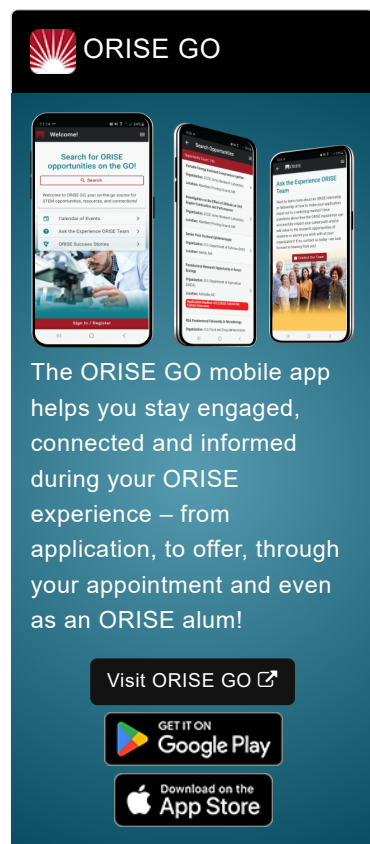
Application Deadline 3/29/2024 3:00:00 PM Eastern Time Zone

Description *Applications are reviewed on a rolling-basis.

ARS Office/Lab and Location: A research opportunity is available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), US National Arboretum, Floral and Nursery Plants Research Unit located in Beltsville, Maryland.

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. This opportunity takes place in a large and multi-disciplinary ARS research facility in Beltsville, MD, and is with the Floral and Nursery Plants Research Unit of the US National Arboretum.

Research Project: Under the guidance of a mentor, the participant will be involved in the following opportunities: propagating and maintaining plants from cuttings and seeds; preparing media, buffers, and reagents for laboratory use; collecting samples from infected plants for pathogen isolation; making extractions for nucleic acids and/or serological analysis; setting up experiments in the lab and greenhouse; and writing summaries of results and methods.



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Learning Objectives: The participant will become proficient at basic and molecular plant pathology skills, specifically related to bacterial or viral pathogens, or bacteriophages. These may include virulence assays, transposon mutagenesis, PCR, and qPCR; use of dissecting and compound microscopes to examine plant tissues; examine host/pathogen/vector interactions; perform high throughput sequencing and bioinformatics. The participant will gain experience conducting research with plant pathogens in a select-agent laboratory and greenhouse setting.

Mentor(s): The mentor for this opportunity is Qi Huang (qi.huang@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

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

Appointment Length: The appointment(s) 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(s) will receive a monthly stipend ranging from **\$45,729 to \$73,617 per annum** depending on 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 [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.Northeast@orau.org and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a bachelor's or master's degree in the one of the relevant fields (e.g. Plant Pathology, Bacteriology, Virology, Molecular Biology). Bachelor's degree must be already received or master's degree must be completed within the next six months.

Preferred skills:

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- Experience in a research lab after receiving a bachelor's degree is highly desired
- Experience in Plant Pathology, Bacteriology, Virology, Molecular Biology or a closely related field

- Eligibility**
- **Degree:** Bachelor's Degree or Master's Degree.
- Requirements**
- **Discipline(s):**
 - **Life Health and Medical Sciences** ([20](#) 👁)