

Opportunity Title: USDA-ARS Preserved Fungal Specimen Phylogenetics and

Imaging

Opportunity Reference Code: USDA-ARS-NEA-2024-0245

Organization U.S. Department of Agriculture (USDA)

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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 1/3/2025 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 the Mycology and Nematology Genetic Diversity and Biology Laboratory 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

Research Project: Project participant will be involved in research activities that rely on dried preserved fungal specimens house in the U.S. National Fungus Collections. These will include microscopic characterizations, DNA extractions and amplifications of specific genes, various methods for determination of species or genus relationship and digital imaging and cataloging of specimens, labels, and other associated data. Participant will be encouraged to collaborate with internal and external collaborators, especially those engaged in specimen-based research.



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Learning Objectives: Learning objectives will include cultivating skills needed to successfully manage a large collection of fungi; methods for the management and retrieval of large-scale data sets of genome data as well as biodiversity data; workflows for the generation of genome scale DNA sequence data from both fresh and preserved historical fungal specimens; methods for the analysis of digital images for automated identification of fungal spores from fresh and dried specimens.

Mentor(s): The mentor for this opportunity is Lisa Castlebury (lisa.castlebury@usda.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: January 2025. 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.

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 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 be currently pursuing a doctoral degree in the one of the relevant fields, degree anticipated to be received prior to start of appointment.

## Preferred skills:

Discipline(s):

· Experience with fungal systematics, fresh and preserved specimens, DNA extractions and phylogenetic data analysis.

# Eligibility

Citizenship: U.S. Citizen Only

### Requirements

• Degree: Doctoral Degree.

Life Health and Medical Sciences (9\_●)

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