

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Applied Microbiology

Opportunity Reference Code: USDA-ARS-2022-0126

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2022-0126

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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. All transcripts must be in English or include an official English translation. 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 5/25/2022 3:00:00 PM Eastern Time Zone

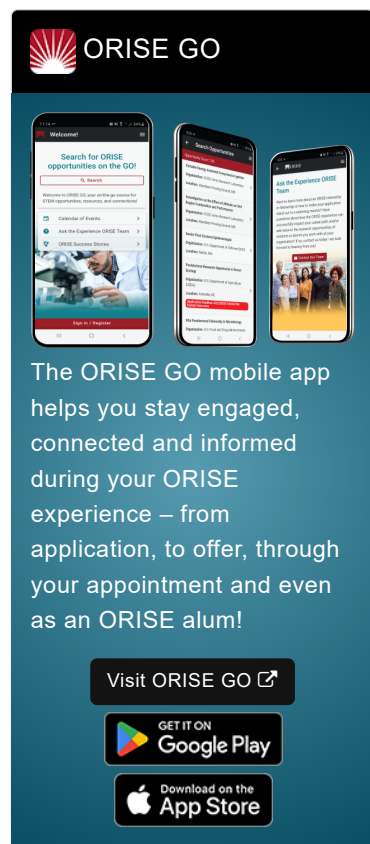
Description ***Applications will be reviewed on a rolling-basis.**

ARS Office/Lab and Location: A research opportunity is currently available in the Mycotoxin Prevention and Applied Microbiology (MPM) Research Unit, National Center for Agricultural Utilization Research (NCAUR), Peoria, Illinois.

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. The goal of the Mycotoxin Prevention and Applied Microbiology (MPM) Research Unit is to enhance food safety by conducting research to develop strategies to control fungal disease in cereal crops and eliminate the risk of harmful fungal contaminants in food and feed.

Research Project: The participant will conduct research to understand the impact of climate change on mycotoxin contamination of cereal grains. The specific project objective will be to evaluate the impact of elevated carbon dioxide on the production of *Fusarium graminearum* secondary metabolites, mycotoxins, and mycotoxin derivatives during growth on wheat and barley grains with varying protein and carbohydrate content. The participant will be involved in developing nuclear magnetic resonance NMR based metabolomic analyses to detect and quantify the *Fusarium* metabolites. MPM scientists conduct research in genetics, microbiology, chemistry and plant pathology to produce information and technologies to enhance food safety and crop production in the U.S. and around the world.

Learning Objectives: The participant will have opportunities to collaborate with a diverse group of scientists. During the appointment, there will be occasional travel to professional meetings.



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Mentor(s): The mentor for this opportunity is Martha Vaughan (martha.vaughan@usda.gov). If you have questions about the nature of the research please contact the mentor(s).

Anticipated Appointment Start Date: **Spring 2022.** 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 an additional year 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 USDA-ARS@ornl.gov and include the reference code for this opportunity.

Qualifications The qualified candidate should have received a doctoral degree in Chemistry or one of the relevant fields.

Some experience with Molecular Mycology, Fungal Genetics, Microbiology, and/ or Molecular Biology is preferred.

- Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
 - **Degree:** Doctoral Degree.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([12](#) )
 - **Environmental and Marine Sciences** ([14](#) )
 - **Life Health and Medical Sciences** ([48](#) )