

Opportunity Title: USDA-ARS Postdoctoral Fellowship in Molecular Biology and Microbiology

Opportunity Reference Code: USDA-ARS-2022-0148

Organization U.S. Department of Agriculture (USDA)

Reference Code USDA-ARS-2022-0148

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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 10/3/2022 3:00:00 PM Eastern Time Zone

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

ARS Office/Lab and Location: Two research opportunities are available with the U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS) at the Western Regional Research Center (WRRC), Foodborne Toxin Detection and Prevention Research Unit, located in Albany, CA through the ORISE Program to conduct experiments aimed at developing and characterizing antibodies against foodborne toxins produced by plant, bacterial and fungal pathogens.

Research Project: Foodborne pathogens cause 9.4 million of these cases and cost the economy \$15.5 billion each year. Toxins are the major contributor of various foodborne illnesses, thus the detection of bacterial and nonbacterial toxins in foods is vital for food safety and food defense.

The participant(s) will be stationed in a laboratory at the WRRC and carry out an independent project that includes: 1) developing antibodies for toxins produced by plant, bacterial and fungal pathogens; 2) establishing sensitive and thermal stable immunoassays for detection of toxins present in environmental and food matrices.

Learning Objectives: In the mentor's laboratory, the selected candidate(s) will have the opportunity to practice cloning, expression and purification of recombinant proteins, develop and characterize monoclonal antibodies and immunoassays for field uses.

Mentor(s): If you have questions about the nature of the research, please contact Xiaohua He (xiaohua.he@usda.gov).

Anticipated Appointment Start Date: Summer - Fall 2022. Start date is flexible and will depend on a variety of factors.



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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(s) will receive a monthly stipend commensurate with educational level and experience. **The selected applicant will receive \$78,081 per year stipend, plus cost for personal health insurance, which can be obtained through ORISE (\$5,679).**

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. **However, this position requires a pre-appointment check and a full background investigation.** Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

This is an equal opportunity program open to all qualified individuals without regard to race, color, age, sex, religion, national origin, mental or physical disability, genetic information, sexual orientation, or covered veteran's status.


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 one of the relevant fields (e.g. Microbiology, Molecular Biology), or be currently pursuing the degree with completion by October 1, 2022.

Preferred skills:

- Hands-on experience with microbiology and molecular biology techniques for DNA and protein analysis in bacterial systems
- Experience with small animal care

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 10/1/2022 11:59:00 PM.
- **Discipline(s):**
 - **Life Health and Medical Sciences** ([11](#) )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).