

**Opportunity Title:** USDA-ARS Scientific Research Fellowship

**Opportunity Reference Code:** USDA-ARS-SEA-2024-0246

**Organization** U.S. Department of Agriculture (USDA)

**Reference Code** USDA-ARS-SEA-2024-0246

**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** 11/22/2024 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 in the U.S. Vegetable Laboratory at Charleston, South Carolina.

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:** This project is supported by the USDA-NIFA Crop Production and Pest Management program and coordinated by the University of Florida in developing "Recombinase polymerase amplification toolbox for field detection of diverse virus genera and species affecting cucurbits." A full-time ORISE participant will gain experience in and learn about the development, validation and application of the newly developed tests on plant and seed samples for various cucurbit infecting viruses, especially Cucumber green mottle mosaic virus. In addition, the participant will participate in screening, advancing and analyzing genetic materials with



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resistance to viruses.

**Learning Objectives:**

- The participant will learn how to develop and apply recombinase polymerase amplification (RPA) and other molecular methods for virus detection through primer design, reaction optimization and testing on various plant or seed samples.
- The participant will be trained on screening plant materials for resistance to viruses on vegetables, including cucumber and tomato.
- The participant will learn how to follow the experiment design to carry out replicate experiments, data collection, preliminary data summary and analysis.

**Mentor(s):** The mentor for this opportunity is Kai-Shu Ling ([kai.ling@usda.gov](mailto:kai.ling@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, 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.Southeast@orau.org](mailto:ORISE.ARS.Southeast@orau.org) and include the reference code for this opportunity.

**Qualifications** The qualified candidate should be currently pursuing or have received a bachelor's or master's degree in the one of the relevant fields.

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**Preferred skills:**

- Creativity and flexibility.

- Eligibility Requirements**
- **Degree:** Bachelor's Degree or Master's Degree.
  - **Discipline(s):**
    - **Environmental and Marine Sciences** ([14](#) 👁)
    - **Life Health and Medical Sciences** ([51](#) 👁)

**Affirmation** I affirm that:

I am a US Citizen, OR;

I am a non-US citizen currently living in the United States