

Opportunity Title: FDA Summer Internship in Microbiology to Understand Preharvest Pathogen Colonization of Produce

Opportunity Reference Code: FDA-CFSAN-2024-0016

Organization	U.S. Food and Drug Administration (FDA)
Reference Code	FDA-CFSAN-2024-0016
How to Apply	<p>A complete application consists of:</p> <ul style="list-style-type: none"> • An application • Transcripts – Click here for detailed information about acceptable transcripts • A current resume/CV, including academic history, employment history, relevant experiences, and publication list • One educational or professional recommendation <p>All documents must be in English or include an official English translation.</p> <p>If you have questions, send an email to ORISE.FDA.CFSAN@rau.org. Please include the reference code for this opportunity in your email.</p>

Application Deadline 5/31/2024 3:00:00 PM Eastern Time Zone

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

FDA Office and Location: A research opportunity is available within the Food and Drug Administration (FDA) in The Center for Food Safety and Applied Nutrition (CFSAN), located at Raleigh, North Carolina.

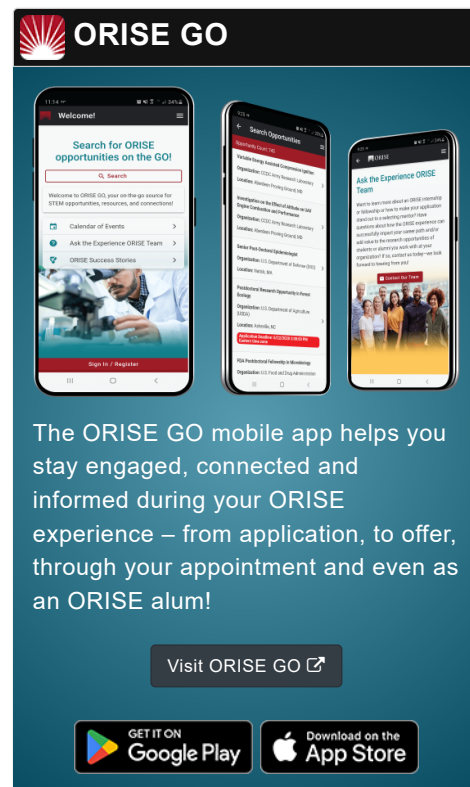
The Center for Food Safety and Applied Nutrition, known as CFSAN, provides services to consumers, domestic and foreign industry and other outside groups regarding field programs; agency administrative tasks; scientific analysis and support; and policy, planning and handling of critical issues related to food, dietary supplements, and cosmetics.


Research Project: The goals of this project are to study the complex interactions of human pathogens such as Salmonella and shiga-toxin producing E. coli with fresh produce commodities in the preharvest agricultural environment to ultimately assist in preventative controls. Various environmental and cultivation factors, such as humidity, extreme temperatures, soil composition, fumigation/fertilization/irrigation methods, or soil amendment applications, will be evaluated for their potential contribution to colonization prior to harvest. Fully-virulent pathogens will be applied to plants of interest to study their interactions. This research will be conducted at the phytotron facility at North Carolina State University (NCSU).

Learning Objectives: The participant will receive hands-on training from the mentor in the following tasks during the specified period:

- NCSU biosafety procedures for researching in a biosafety level 3P phytotron facility







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- Advanced aseptic techniques used for the growth of plants in a BSL-3P level greenhouse
- Techniques to inoculate plants at varying stages of growth with enteric pathogens
- Microbiological and molecular techniques to identify pathogens present on or in plants
- Assist with data management on all above stated projects as well as other research related activities
- Follow experimental protocols and document findings in a laboratory notebook
- Communicate with mentors on a daily basis
- Assist mentors to prepare reports for communicating results to CFSAN, FDA, and the scientific community

Anticipated Appointment Start Date: May 15, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for 12 weeks but may be renewed upon recommendation of FDA and is contingent on the availability of funds.

Level of Participation: The appointment is full time.

Citizenship Requirements: This opportunity is available to U.S. citizens only.

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and FDA. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

Completion of a successful background investigation by the Office of Personnel Management is required for an applicant to be on-boarded at FDA. OPM can complete a background investigation only for individuals, including non-US Citizens, who have resided in the US for a total of three of the past five years.

FDA Ethics Requirements

If an ORISE Fellow, to include their spouse and minor children, reports what is identified as a Significantly Regulated Organization (SRO) or prohibited investment fund financial interest in any amount, or a relationship with an SRO, except for spousal employment with an SRO, and the individual will not voluntarily divest the financial interest or terminate the relationship, then the individual is not placed at FDA. For additional requirements, see [FDA Ethics for Nonemployee](#)

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Scientists.

FDA requires ORISE participants to read and sign their FDA Education and Training Agreement within 30 days of his/her start date, setting forth the conditions and expectations for his/her educational appointment at the agency. This agreement covers such topics as the following:

- Non-employee nature of the ORISE appointment
- Prohibition on ORISE Fellows performing inherently governmental functions
- Obligation of ORISE Fellows to convey all necessary rights to the FDA regarding intellectual property conceived or first reduced to practice during their fellowship
- The fact that research materials and laboratory notebooks are the property of the FDA
- ORISE fellow's obligation to protect and not to further disclose or use non-public information

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

Preferred skills:

- Successfully completed 6 hours of microbiology/biology classes
- Prior wet-bench microbiology experience
- An understanding of researching within BSL-2 laboratory
- Accomplished organizational skills
- Excellent written and oral communication skills

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a Bachelor's Degree.
- **Academic Level(s):** Post-Associate's or Undergraduate Students.
- **Discipline(s):**
 - **Life Health and Medical Sciences** (51 👁)

Affirmation I have lived in the United States for at least 36 out of the past 60 months. (36 months do not have to be consecutive.)

I have read the FDA Ethics Requirements.