

Opportunity Title: FDA -CFSAN Summer Internship in Microbiology

Opportunity Reference Code: FDA-CFSAN-2023-0005

Organization U.S. Food and Drug Administration (FDA)

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A complete application consists of:

- 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

All documents must be in English or include an official English translation.

If you have questions, send an email to ORISE.FDA.CFSAN@orau.org.

Please include the reference code for this opportunity in your email.

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

A summer research opportunity is currently available at the U.S. Food and Drug Administration (FDA), Center for Food Safety and Applied Nutrition (CFSAN), Office of Regulatory Science (ORS), located in College Park, Maryland.

The goals of this project are to improve the ability to predict and apply key phenotypic and genotypic characteristics of recurring isolates from food industry and farms to ultimately assist in preventive controls. Initially they will be examined for their levels of tolerance or resistance to quaternary ammonium chloride compounds (Quats), chlorine, heavy metals, antibiotic drugs, heat, salts, and acid. Additional resistance traits may be characterized as needed. Draft and closed genomes will be collected on key isolates that survive current preventive control measures, enabling the construction of a publicly available, searchable database for rapid genetic and proteomic characterization. Organisms included in the study will include Salmonella, and other foodborne pathogens.

Under the guidance of a mentor, the ORISE Participant will assist in the following research activities during the specified period:

- CFSAN and Division of Microbiology (DM) biosafety procedures for handling pathogenic bacterial cultures
- DM laboratory methods, including generation and analysis of DNA sequence data from foodborne pathogens using PacBio and Illumina next generation sequencing technologies
- 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



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- Assist mentors to prepare reports for communicating results to CFSAN, FDA, and the scientific community

Anticipated Appointment Start Date: May 15, 2023; start date is flexible

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 initial appointment is for 2.5 months but may be renewed upon recommendation of FDA contingent on the availability of funds.** The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at FDA in the College Park, Maryland area. 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 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 or have recently received a bachelor's degree in a life science field. The candidate should have successfully completed 6 hours of microbiology/biology classes.

Preferred skills/ knowledge:

- Accomplished organizational skills
- Prior wet-bench microbiology experience
- An understanding of working within BSL-2 laboratory
- Excellent written and oral communication skills

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Bachelor's Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Life Health and Medical Sciences** ([48](#) )

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.)