Opportunity Title: FDA Fellowship in Method Development for Nanoparticle Detection and Characterization in Foods
Opportunity Reference Code: FDA-CFSAN-2024-0010

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

Reference Code FDA-CFSAN-2024-0010

How to Apply 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.

Application Deadline 6/3/2024 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 in College Park, Maryland.

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 selected applicant will be paired up with an experienced FDA research scientist who will guide the participant through a hands-on research training experience related to their STEM field of study.

The project involves development of a method to detect and characterize naturally occurring or engineered nanoparticles in foods, cosmetics, and dietary supplements. The method may be used for regulatory or surveillance activities to ensure the safety of the food supply and accuracy of food, cosmetic, and dietary supplement labeling.

Learning Objectives: The participant will receive training in the following areas during the specified period:

- Development of novel methods for extraction of nano-sized (< 1 micron diameter) particles from foods, learning how to isolate the particles from the food matrix, and to calibrate and characterize those particles by instrumental analysis.
- Hands-on training on the use of various sample preparation and analytical techniques including microwave-assisted sample digestion, extraction methods, ICP-MS, ICP-TOF, SEM, TEM, and other analytical techniques as needed.
- Method validation procedures to establish the performance of the developed method to enable assessment of their applicability.

- Conduction of laboratory experiments to help evaluate and validate the analytical procedures under study and guidance of the mentor in the preparation of reports and scientific manuscripts.

Anticipated Start Date: June 1, 2024.

Appointment Length: The appointment will initially be for one year, 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 and Lawful Permanent Residents (LPR) 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 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;

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- 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 received a doctoral degree in the one of the relevant fields. Degree must have been received within the past five years or be currently pursuing.

Preferred Skills:

- Background and interest in elemental analysis.
- Experience in sample preparation.
- Knowledge or experience in using single droplet sample introduction.
- ICP-TOF, ICP-MS, microwave digestion techniques experience.
- Effective verbal and written communication.

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Earth and Geosciences** (3 👁)
  - **Physics** (2 👁)
  - **Science & Engineering-related** (1 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).

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.