Opportunity Title: FDA Nanomaterial Analytical Characterization Fellowship
Opportunity Reference Code: FDA-CDER-2022-0779

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

Reference Code FDA-CDER-2022-0779

How to Apply

Connect with ORISE...on the GO! Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

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.CDER@orau.org. Please include the reference code for this opportunity in your email.

Application Deadline 6/30/2022 3:00:00 PM Eastern Time Zone

Description

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

Two research opportunities are currently available at the Food and Drug Administration (FDA), Office of Regulatory Affairs (ORA), Arkansas Regional Laboratory located in Jefferson, Arkansas. The postdoctoral fellow will be involved in a multi-disciplinary collaborative research project between the Center for Drug Evaluation and Research (CDER), and the National Center for Toxicological Research (NCTR)/ORA Nanotechnology Core Facility.

The FDA Jefferson Laboratory Complex is located approximately 25 miles South of Little Rock, Arkansas. The Campus houses NCTR (the primary research facility of the U.S. Food & Drug Administration) and the Arkansas Regional Laboratories of ORA.

This project is within the Nanotechnology Core Facility where the following analytical techniques will be used to support these research activities: high resolution mass spectrometry (HRMS) techniques such as triple quadrupole mass spectrometry (QQQ), quadrupole time of flight mass spectrometry (QTOF), HPLC-MS, HPLC-ELSD, capillary electrophoresis, asymmetric field flow fractionation (AFFF), centrifugal field flow fractionation (CFFF). The Nanotechnology Core Facility was developed to support the technical needs of scientists involved in determining the toxicity, safety, and characterization of nanomaterials. This facility supports research efforts at the FDA's ORA, the National Center for Toxicological Research (NCTR), and the National Institute of Environmental Health Sciences National Toxicology Program.

Under the guidance of a mentor, the participant may be involved in activities including:

- Development of solid phase extraction, separation, compound identification and quantification techniques using HPLC-QTOF, QQQ and CE-QTOF, QQQ for quantification of API and excipient in liposomal drugs.
- Development of hyphenated size-based separation techniques (e.g., asymmetric field flow fractionation, centrifugal field flow fractionation, capillary electrophoresis, liquid chromatography) using spectrometry (QTOF/QQQ), MALS, DLS and optical absorbance detectors.
- Method development for drug release profiling of nano-drug formulations.

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 one year, 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 Jefferson, Arkansas, 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

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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 received a doctoral degree in one of the relevant fields. Degree must have been received within the past five years.

Preferred skills:

- Familiarity with qualitative and quantitative analysis of small molecules using high resolution mass spectrometry techniques and nanotechnology or pharmacology
- Collaboration skills and being a solid contributor in a multi-disciplinary team

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (7 👁)
  - **Engineering** (1 👁)
  - **Life Health and Medical Sciences** (2 👁)
  - **Science & Engineering-related** (1 👁)

Affirmation

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