

**Opportunity Title:** FDA Nanotechnology Postdoctoral Research Fellowship

**Opportunity Reference Code:** FDA-NCTR-2024-0003

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

**Reference Code** FDA-NCTR-2024-0003

**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. Your application will be considered incomplete, and will not be reviewed until one recommendation is submitted.

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

If you have questions, send an email to [ORISE.FDA.NCTR@oraui.org](mailto:ORISE.FDA.NCTR@oraui.org). Please include the reference code for this opportunity in your email.

**Application Deadline** 7/31/2024 3:00:00 PM Eastern Time Zone

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

**FDA Office and Location:** A postdoctoral fellowship opportunity is currently available in the Nanotechnology Core Facility at the National Center for Toxicological Research (NCTR) of the U.S. Food and Drug Administration (FDA) located in Jefferson, Arkansas.

**Research Project:** A postdoctoral fellowship opportunity is currently available in the Nanotechnology Core Facility at the National Center for Toxicological Research (NCTR). The Nanotechnology Core Facility was developed to support the technical needs of FDA scientists involved in determining the toxicity, safety, and characterization of nanomaterials. This facility supports research efforts at NCTR and FDA Regulatory Centers in Jefferson, Arkansas. The selected participant will collaborate on multi-disciplinary research efforts that may include: Development of novel methods for the physicochemical characterization and detection of nanoscale materials, including micro- and nano plastics, and Development and validation of novel methods to isolate and identify nanomaterials in complex matrices.

**Learning Objectives:** Through this project, the participant will develop skills in: Nanomaterial Synthesis, Chromatography (GC-MS, HPLC, SEC, AFFF), thermogravimetric analyzer (TGA), Fourier transform infrared spectrometry (FTIR), Gas Chromatography Mass Spectrometry (GC/MS) Inductively coupled plasma-mass spectrometry (ICP-MS), high resolution mass spectrometry (HRMS), particle size analysis (multiple methods including dynamic light scattering (DLS), x-ray photon cross correlation spectroscopy (XPS), nanoparticle tracking analysis (NTA), and laser diffraction), Raman spectroscopy, electron microscopy.

**Anticipated Appointment Start Date: June 1, 2024.** Start date is flexible and will depend on a variety of factors.

**Appointment Length:** The appointment will initially be for 1 year, but may be renewed upon recommendation of FDA and is contingent on the availability of funds.



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**Level of Participation:** The appointment is full time.

**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.

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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 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;
- ORISE fellow's obligation to protect and not to further disclose or use non-public information.







**Qualifications** The qualified candidate should have received a doctoral degree in one of the relevant fields (e.g. chemistry, physics or engineering with a strong emphasis in nanotechnology), or be currently pursuing the degree with completion prior to the appointment starting date. Degree must have been received within five years of the appointment start date.

Preferred Skills:

- Experience in the synthesis and characterization of nanomaterials is preferred.

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- Eligibility Requirements**
- **Degree:** Doctoral Degree received within the last 60 months or anticipated to be received by 7/31/2024 11:59:00 PM.
  - **Discipline(s):**
    - **Chemistry and Materials Sciences** ([12](#) )
    - **Engineering** ([12](#) )
    - **Environmental and Marine Sciences** ([1](#) )
    - **Life Health and Medical Sciences** ([1](#) )
    - **Physics** ([1](#) )
    - **Science & Engineering-related** ([1](#) )

**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.)

and

I have read the FDA Ethics Requirements.