Opportunity Title: FDA Characterization of Topical Spray Drug Products
Opportunity Reference Code: FDA-CDER-2026-0029

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

Reference Code FDA-CDER-2026-0029

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 6/30/2026 12:00:00 AM Eastern Time Zone

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

FDA Office and Location: A research opportunity is available at the U.S. Food and Drug Administration (FDA) Center for Drug Evaluation and Research (CDER) Office of Pharmaceutical Quality Research (OPQR) located in St. Louis, Missouri. The Center for Drug Evaluation and Research (CDER) performs an essential public health task by making sure that safe and effective drugs are available to improve the health of people in the United States. As part of the U.S. Food and Drug Administration (FDA), CDER regulates over-the-counter and prescription drugs, including biological therapeutics and generic drugs. This effort covers more than just medicines.

Under the guidance of the mentor, the participant will develop aerosol/particle analytical methods to support regulatory activities. The participant will also learn to characterize physical characteristics of aerosol spray products using instrumentation such as laser diffraction, high-speed imaging, cascade impactors, HPLC/MS, etc. and conduct product drug performance evaluations on characteristics critical for drug quality.

Research Project: This project aims to better understand the physical properties of aerosol spray drug products by examining the characteristics of aerosol spray products, including formulation and performance. Analysis will focus on aerosols emitted after actuation from the aerosol spray cannisters, including particle size distribution, droplet evaporation, movement, and deposition. New methodology and data will be generated on the performance of aerosol sprays to support FDA regulatory research and activities.

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Learning Objectives: Under the guidance of the mentor(s), you will learn about:

- Developing project-specific protocols and methodology using state-of-the-art instrumentation, such as laser diffraction spectrometers and high-speed imaging
- Using novel methodology to examine a wide range of topical spray drug products
- Attending research update meetings with the mentor to discuss project progression
- Preparing technical reports for both OND and OPQR.Attend internal and external technical meetings and aerosol short courses
- Presenting research findings at the American Association of Pharmaceutical Scientists (AAPS) Annual Meeting
- Communicating research findings through peer-reviewed publications

Mentor: The mentor(s) for this opportunity are Robert Bahde (Robert.Bahde@fda.hhs.gov) and Xiaofei Liu Xiaofei.Liu@fda.hhs.gov). If you have questions about the nature of the research, please contact the mentor.

Anticipated Appointment Start Date: 2026. Start date is flexible and will depend on a variety of factors.

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, in-person at the FDA Office in St. Louis, Missouri.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

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.

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,

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

Point of Contact Ashley

Eligibility Requirements

- **Degree:** Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Earth and Geosciences** (2 👁)
  - **Engineering** (29 👁)
  - **Physics** (16 👁)

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.