

Opportunity Title: FDA Advanced Characterization of Biologics Lab Fellowship

Opportunity Reference Code: FDA-CDER-2024-1402

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

Application Deadline 6/28/2024 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 Drug Evaluation and Research (CDER), located at Silver Spring, Maryland.

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 work covers more than just medicines.

Research Project: This project is in the Office of Biotechnology Products (OBP), Office of Pharmaceutical Quality (OPQ). Evaluating therapeutic protein drug products stability is an important critical quality attribute. Protein drug products face real world stress conditions that may result in accidental exposure of these drugs to extreme temperatures or agitation that are not routinely studied when sponsors submit their applications and may impact their stability resulting in poor drug quality. This project will evaluate potential real-world stress scenarios which may negatively impact drug products like Insulin, monoclonal antibodies and their respective biosimilars along with reference standard materials in terms of their physiochemical properties using compendial and non-compendial characterization methods.

Learning Objectives: Under the guidance of the mentor, the participant will get trained on the industry standard instruments in the laboratory. The participant will gain scientific knowledge about both compendial and non-compendial methods that are commonly used to evaluate protein drugs and



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will help the participant in the scientific career in the field of biotechnology. The participant will be mentored by a staff scientist and will get hands-on experience with novel instruments like FlowCam LO and dynamic light scattering which will help in evaluating the physiochemical properties like size, shape, particle count of the stressed and unstressed protein drug products. The participant will evaluate sub-visible particle formation using Flow Imaging technology as well as screen the protein drug products for aggregation using high throughput dynamic light scattering.

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, 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, 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;

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- 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 bachelor's, master's, or doctoral degree in one of the relevant fields or be currently pursuing. Degree must have been received within the past five years, or currently pursuing.

Preferred skills:

- A doctoral degree in physical sciences/engineering (biomedical/chemical)/pharmaceutical sciences/material sciences.
- Qualified master's and bachelor's degree may also be considered provided that the candidate demonstrates strong analytical experience.

- Eligibility Requirements**
- **Degree:** Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or currently pursuing.
 - **Discipline(s):**
 - **Chemistry and Materials Sciences** ([4](#) )
 - **Engineering** ([5](#) )
 - **Life Health and Medical Sciences** ([4](#) )
 - **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.)

I have read the FDA Ethics Requirements.