zintellect
climb higher

Opportunity Title: FDA Fall 2024 Engineering Internship Opportunity
Opportunity Reference Code: FDA-CDRH-2024-0016

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

Reference Code FDA-CDRH-2024-0016

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

Application Deadline 9/30/2024 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 Division of Applied Mechanics (DAM) in the Office of Science and Engineering Laboratories (OSEL), located at Silver Spring, Maryland.

Research Project: The students project will entail evaluating the performance variability of common materials used in medical devices as well as determining how material variability impacts medical device performance testing. This may be accomplished through standard (e.g., ASTM, ISO) material and device testing methods. It is expected the student will be using Finite Element Analyses (FEA) software such as ANSYS to create the models. Establishing credible in silico models that predict device performance metrics will also be a goal.

Learning Objectives: The student will be mentored by the Additive Manufacturing (AM) Program team. The student's learning opportunities may include:

- Conducting Finite Element Analysis (FEA) simulations (e.g., ANSYS, Abaqus).
- Performing mechanical testing of AM coupons (fatigue, compression, tensile, etc.).
- Using various AM technologies (e.g., FDM, SLA, Polyjet, SLS) and their affiliated post processing.
- Designing and fabricating samples and fixtures in CAD (e.g., SolidWorks).
- Programming (e.g., Python, g-code).
- Analyzing data.

- Imaging specimens.

Anticipated Appointment Start Date: September 2, 2024. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for six months, 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
- 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

Opportunity Title: FDA Fall 2024 Engineering Internship Opportunity
Opportunity Reference Code: FDA-CDRH-2024-0016

- 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 master's or doctoral degree in the one of the relevant fields. Degree must have been received within the past five years, or anticipated to be received by 6/30/2024.

Preferred skills:

- Experience with laboratory research, AM, CAD, FEA, programming, and/or mechanical testing is preferable.
- Hands-on experience in mechanical testing and a good field knowledge of mechanics of materials and material science.

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 6/30/2024 11:59:00 PM.
- **Overall GPA:** 2.80
- **Discipline(s):**
  - **Engineering** (11 👁)

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.