Opportunity Title: FDA-CDRH Fall 2023 Engineering Internship
Opportunity Reference Code: FDA-CDRH-2023-17

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

Reference Code FDA-CDRH-2023-17

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 10/31/2023 3:00:00 PM Eastern Time Zone

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

The U.S. Food and Drug Administration's (FDA) Division of Applied Mechanics (DAM) in the Office of Science and Engineering Laboratories (OSEL) is seeking a graduate Material, Mechanical, and/or Biomedical Engineering student (Masters level or above) for a full-time (40hr/ week) paid research opportunity. The student will be mentored by the Additive Manufacturing (AM) Program team. Research will primarily focus on the role of AM in the Additive Manufacturing of Medical Products (AMMP) lab in Silver Springs, Maryland.

The student's learning opportunities may include:

- Working with 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).
- Conducting Finite Element Analysis (FEA) simulations (e.g., ANSYS, Abaqus).
- Performing mechanical testing of AM coupons (compression, tensile, etc).
- Programming (e.g., Python, g-code).
- Analyzing data.
- Imaging specimens.

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

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participation in this program. The appointment is full-time and will be a mix of on-site/in-person for laboratory research at FDA in the Silver Spring, Maryland, area and virtual experiences (heavily weighted to in-person). Applicant must be able to meet all requirements for participating on a Federal Campus. 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 (OPM) 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 master's or doctoral degree in one of the relevant fields (e.g. Analytical Chemistry, Chemistry, Chemical Engineering). Degree must have been received within the past five years.

Preferred skills/experience:

- Prior experience with laboratory work, AM, CAD, FEA, programming, and/or mechanical testing is preferable
- Hands-on experience in mechanical testing and a good working knowledge of mechanics of materials and material science

Eligibility Requirements

- **Degree:** Currently pursuing a Master's Degree or Doctoral Degree.
- **Overall GPA:** 3.00
- **Discipline(s):**
  - **Engineering** (9 👁)
- **Veteran Status:** Veterans Preference, degree received within the last 60 month(s).

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.)

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I have read the FDA Ethics Requirements.