Opportunity Title: FDA Orthopedic Devices and Advanced Manufacturing Research Opportunity
Opportunity Reference Code: FDA-CDRH-2026-0007

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

Reference Code FDA-CDRH-2026-0007

How to Apply ***To submit your application, scroll to the bottom of this opportunity and click APPLY.***

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

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!

Application Deadline 9/30/2026 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 Center for Devices and Radiological Health (CDRH), Food and Drug Administration (FDA), located at Silver Spring, Maryland.

Research Project: The FDA's CDRH Orthopedic Devices and Advanced Manufacturing Program researches orthopedic implants and innovative manufacturing technologies. The program ensures medical devices are safe and effective for public use. Orthopedic devices being investigated may include bone screws, bone plates, spinal implants, as well as hip, knee, and shoulder arthroplasty devices. The program also investigates new manufacturing processes such as Additive Manufacturing, which is quickly becoming a major contributor to the production of medical devices. Research activities in orthopedics and advanced manufacturing are diverse. This fellowship will provide the participant with opportunities that include designing test coupons, developing experimental workflows, setting up and running experiments, running simulations, analyzing data, cadaver testing, chemical characterization, process validation and monitoring, reviewing literature, and troubleshooting processes.

Learning Objectives: As a participant, you will have learning opportunities that may include:

- Handling 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 (compression, tension, torsion, etc.)
- Programming (e.g., Python, g-code)
- Analyzing data
- Imaging specimens
- Human cadaver dissection and testing

Mentor: The mentor(s) for this opportunity are Daniel Porter (daniel.porter@fda.hhs.gov), Snehal Shetye (snehal.shetye@fda.hhs.gov), and Andrew Baumann (andrew.baumann@fda.hhs.gov). If you have questions about the nature of the research, please contact the mentors.

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

Appointment Length: The appointment will initially be up to 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.

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, 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 an associate's, bachelor's, master's or doctoral degree in the one of the relevant fields. Degree must have been received within the past 60 months or anticipated to be received by 5/31/2027.

Preferred skills/experience:

- Prior experience with laboratory research with an emphasis on mechanics of materials and/or materials science
- Experience with Additive Manufacturing (AM) technologies and workflows
- Hands-on experience with mechanical testing
- Computer modeling and simulation experience such as CAD and FEA
- Human cadaver dissection and testing

Point of Contact

Ashley

Eligibility Requirements

- **Degree:** Associate's Degree, Bachelor's Degree, Master's Degree, or Doctoral Degree received within the last 60 months or anticipated to be received by 5/31/2027 11:59:00 PM.
- **Discipline(s):**
  - **Chemistry and Materials Sciences** (12 👁)
  - **Computer, Information, and Data Sciences** (17 👁)
  - **Engineering** (29 👁)
  - **Life Health and Medical Sciences** (51 👁)
  - **Mathematics and Statistics** (11 👁)

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- **Physics** (16 👁)
- **Science & Engineering-related** (2 👁)

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.