



## **FDA Electromagnetic and Electrical Interactions Fellowship**

**Applications submitted to:** <https://zintellect.com/Opportunity/Details/FDA-CDRH-2026-0010>

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

**FDA Office and Location:** A research opportunity is available immediately with the Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH) located in White Oak, Maryland.

Oak Ridge Institute for Science and Education (ORISE) Research Participation Programs at the U.S. Food and Drug Administration are educational training programs designed to provide students and recent graduates, opportunities to participate in project-specific research and developmental at the Center for Devices and Radiological Health (CDRH). The mission of CDRH is to protect and promote public health. CDRH assures that patients and providers have timely and continued access to safe, effective, and high-quality medical devices and safe radiation-emitting products. CDRH provides consumers, patients, caregivers, and providers with understandable and accessible science-based information about products. CDRH facilitates medical device innovation by advancing regulatory science, providing industry with predictable, consistent, transparent, and efficient regulatory pathways, and assuring consumer confidence in devices marketed in the U.S.

**Research Project:** CDRH's Electromagnetic and Electrical Interactions regulatory science program conducts research to address the safe use of electrical energy and non-ionizing electromagnetic energy in medical devices. This program encompasses an extraordinary number of medical devices, including all devices that are electrically powered (including batteries) or utilize the non-ionizing portion of the electromagnetic spectrum, including static magnetic fields, radio waves, etc. Research activities are diverse, involving development of tools and test methods to facilitate assessment of many aspects of device safety and effectiveness, including but not limited to battery performance, electromagnetic compatibility, and safety of implanted devices during MRI scans. This fellowship will provide the participant with opportunities that include conducting laboratory experiments, performing computational modeling, analyzing data, reviewing scientific literature, as well as writing reports and peer-reviewed scientific publications.

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

- Designing and conducting computational modeling and simulation studies
- Designing and performing electrical and/or electromagnetic experiments
- Electrical characterization and evaluation of medical electrical equipment
- Programming software for instrumentation control

- Coding, developing, verifying, and validating computational models

**Mentor:** The mentor(s) for this opportunity are William Vogt ([william.vogt@fda.hhs.gov](mailto:william.vogt@fda.hhs.gov)), Mahsa Doosthosseini ([mahsa.doosthosseini@fda.hhs.gov](mailto:mahsa.doosthosseini@fda.hhs.gov)), Hongbae Jeong ([hongbae.jeong@fda.hhs.gov](mailto:hongbae.jeong@fda.hhs.gov)), and Yasaman Ardeshirpour ([yasaman.ardeshirpour@fda.hhs.gov](mailto:yasaman.ardeshirpour@fda.hhs.gov)). If you have questions about the nature of the research, please contact the mentor(s).

**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.

**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.

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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 a 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 5/31/2026.

Preferred skills include:

- MR safety evaluation of medical devices
- Modeling and simulation of batteries and electronic components
- Design, development, and/or testing of medical devices
- Radiofrequency antenna array instrumentation and performance characterization
- Electromagnetic compatibility testing of electronic equipment

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