Opportunity Title: ORISE Fellow - FDA CDRH
Opportunity Reference Code: FDA-CDRH-2018-0217

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

Reference Code FDA-CDRH-2018-0217

How to 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
- Two educational or professional references

All documents must be in English or include an official English translation.

If you have questions, send an email to *FDArpp@orau.org*. *Please include the reference code for this opportunity in your email.*

Description A full-time postgraduate fellowship is available at the Food and Drug Administration (FDA), Center for Devices and Radiological Health (CDRH), Office of Science and Engineering Laboratories (OSEL), Division of Biomedical Physics (DBP). This position is located at the White Oak main campus in Silver Spring, MD.

The Biomedical Physics research group provides important information to the FDA review process for therapeutic and diagnostic neurological devices for conditions including motor and sensory deficits, amputation, Parkinson's disease, epilepsy, brain injury, and psychiatric disorders. Current research projects in this group include identification of biomarkers for traumatic brain injury, and studying long-term safety and reliability of devices interfacing with the brain. We employ a wide array of approaches to study these biomedical research problems, including electrophysiological recording and stimulation, two-photon microscopy for in vivo structural and functional imaging, optical coherence tomography, and histology. We are seeking a fellowship candidate that can apply computational and quantitative methods to these research projects.

The candidate will be involved in lab studies for evaluating neurophysiological responses to traumatic brain injury neural implants in the central nervous system.

This will be a unique opportunity for the research fellow to:

- obtain experience in regulatory science research in the government research setting at the FDA
- contribute to the knowledge base essential for understanding brain injury
- learn how basic science is applied to medical product regulation and to the protection of public health, this is a valuable skill set that cannot be obtained through typical academic experiences.

More information can be found on the lab webpage:
http://www.fda.gov/MedicalDevices/ScienceandResearch/ResearchPrograms/ucm477402.htm

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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 initial appointment is for one year, but may be renewed upon recommendation of FDA contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at FDA in the Silver Spring, Maryland, area. Participants do not become employees of FDA, DOE or the program administrator, and there are no employment-related benefits.

Qualifications

Applicants should have a M.S. or Ph.D. in Biomedical Engineering, Neuroscience, Computational Biology, Computer Science, or a related field. Desired skills and experience include:

- Significant experience in computer programming and computational modeling of biological processes
- Proficiency in MATLAB (particularly neural electrical signal processing and neural image analysis)
- Experience or interest in data mining existing databases (designing algorithms and statistical methods to analyze high volumes of existing multimodal datasets)
- Strong quantitative and experimental skills involving humans and/or animal models
- Electrophysiology experience (recording, stimulation, and data analysis)
- Cellular imaging experience and analysis techniques
- Knowledge of neuroscience and biological processes

The candidate must be able to start before September 1st, 2018 and have received her/his most recent degree within 5 years prior to starting. All candidates must meet applicable security requirements which include a background check and a minimum of 3 out of the past 5 years' residency status in the US.

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 month(s).
- **Discipline(s):**
  - **Communications and Graphics Design** (2 👁)
  - **Computer, Information, and Data Sciences** (1 👁)
  - **Engineering** (1 👁)
  - **Life Health and Medical Sciences** (7 👁)