

## Staff Fellow (Research Engineer – Orthopaedic Devices)

**INTRODUCTION:** The Center for Devices and Radiological Health ([CDRH](#)), the medical devices scientific and regulatory arm of the U.S. Food and Drug Administration ([FDA](#)), welcomes applications for our Staff Fellow (Research Engineer) position in the Office of Science and Engineering Laboratories ([OSEL](#)). This position, focused on orthopaedic medical devices, is located in the Division of Applied Mechanics ([DAM or Division](#)). This Division identifies and utilizes applied mechanics to investigate interactions between the human body and medical devices or radiation-emitting products.

**POSITION SUMMARY:** DAM is recruiting a Staff Fellow (Research Engineer) to study the biomechanical performance of orthopaedic medical devices. In this position, the Staff Fellow will serve as an integral member the team conducting cutting-edge regulatory science research that directly impacts public health and promotes medical device safety and innovation.

**DUTIES / RESPONSIBILITIES:** As a Staff Fellow (Research Engineer), you will perform the following duties:

- Perform laboratory research to develop standardized test methods to characterize the mechanical performance of a variety of orthopaedic devices such as joint arthroplasty implants and spinal instrumentation.
- Develop original research projects that advance science surrounding orthopaedic devices and promote findings through conferences, meetings, publications, and workshops.
- Provide subject matter expertise and regulatory support in the form of consulting reviews of new medical devices and accompanying test reports.
- Generate written technical and scientific documents for peer-reviewed publications and consulting support activities.
- Utilize expert scientific and technical knowledge to serve as an advisor or consultant on regulations and policies involving complex and high priority matters affecting the regulation of orthopaedic devices.

**PROFESSIONAL EXPERIENCE / KEY REQUIREMENTS:** To qualify for this position, you must demonstrate in your resume the necessary experience for this position, which is equivalent to the following:

- At least three (3) years of experience after Ph.D./M.S. education is desired.
- Demonstrated independent and collaborative experience leading, planning, and conducting biomechanical research of orthopaedic medical devices and materials (e.g., mechanical bench testing, failure analysis, and computational modeling).
- Experience in reviewing, analyzing, and using scientific data or other information to advance and convey (orally and in writing) understanding of biomedical materials, processes, and medical devices.
- Ability to participate in and contribute to multi-disciplinary teams and work groups to resolve difficult or controversial research questions.
- Extensive hands-on and modeling biomechanical research experience of orthopaedic medical materials and devices.
- Experience in mechanical bench testing (load frame operation), computational modeling (finite element analysis), failure analysis, cadaveric preparation and testing, sensors or instrumentation technology (SMART devices), advanced/additive manufacturing, materials analysis, optical and electronic microscopy, and/or motion capture analysis.

**BASIC QUALIFICATIONS:** Applicants must meet the specific qualification requirements of the following applicable occupational series: [General Engineering \(0801\)](#); [Materials Engineering \(0806\)](#); [Mechanical Engineering \(0830\)](#); [Bioengineering and Biomedical Engineering \(0858\)](#)

**ADDITIONAL QUALIFICATIONS:** To qualify as a Staff Fellow, you must: be a US Citizen, Permanent Resident, or Non-Citizen with residency status in the U.S., three (3) out of the last five (5) years; possess a doctoral-level degree from an accredited institution of higher learning, including: Ph.D., M.D., D.V.M., D.D.S., D.M.D., Sc.D., or other research doctoral-degree widely recognized in U.S. academe as equivalent to a Ph.D. (*In limited instances, non-doctoral candidates, and/or candidates with less experience may be acceptable*).

### CONDITIONS OF EMPLOYMENT

- One-year probationary period may be required.
- This position is for a **three-year** appointment and will be filled through [FDA's Staff Fellowship Program](#)
- Background and/or Security investigation required.
- Applicants who are U.S. Citizens and born male, on (or after) 12/31/1959, must be registered with the [Selective Service System](#) OR have an approved exemption.
- This position may require financial disclosure reporting and will be subject to FDA's prohibited financial interest regulation. If you are hired, you may be required to divest of certain financial interests. You are advised to seek additional information on this requirement from the hiring official before accepting any job offers. For additional information, please visit the [FDA Ethics and Integrity Office](#).
- All candidates must meet applicable security requirements which include a background check and a minimum of three (3) out of the past five (5) years' residency status in the US. If not previously completed, a background security investigation will be required for all appointees. Appointment will be subject to the applicant's successful completion of a background security investigation and favorable adjudication. Failure to successfully meet these requirements may be grounds for appropriate personnel action. In addition, if hired, a background security reinvestigation or supplemental investigation may be required at a later time. Applicants are also advised that all information concerning qualifications is subject to investigation. False representation may be grounds for non-consideration, non-selection, or appropriate disciplinary action.
- To ensure compliance with an applicable preliminary nationwide injunction, which may be supplemented, modified, or vacated, depending on the course of ongoing litigation, the Federal Government will take no action to implement or enforce the COVID-19 vaccination requirement pursuant to Executive Order 14043 on Requiring Coronavirus Disease 2019 Vaccination for Federal Employees. Therefore, to the extent a federal job announcement includes the requirement that applicants must be fully vaccinated against COVID-19 pursuant to Executive Order 14043, that requirement does not currently apply. Federal agencies may request information regarding the vaccination status of selected applicants for the purposes of implementing other workplace safety protocols, such as protocols related to masking, physical distancing, testing, travel, and quarantine.

**LOCATION(S):** [FDA's White Oak Campus](#) in Silver Spring, Maryland

**SALARY:** Salary is commensurate with education and experience.

**BENEFITS:** A comprehensive benefits package is offered to most Federal employees. For additional benefit information click [here](#).

**HOW TO APPLY:** Prior to applying, please see the following instructions:

- Submit an electronic resume or curriculum vitae and a cover letter describing why you are uniquely qualified for this job.
- Include Job Reference code "**CDRH-OSEL-DBP-039**" in the email subject line.
- Email applicant package to [CDRH-OSEL-Opportunities@fda.hhs.gov](mailto:CDRH-OSEL-Opportunities@fda.hhs.gov).
- Applications and all supporting documentation will be accepted through **March 31, 2023**.

- Visit [CDRH Jobs](#) to see additional opportunities.
- Contact Denise Townsend for questions: [Denise.Townsend@fda.hhs.gov](mailto:Denise.Townsend@fda.hhs.gov)

*The United States Government [equal opportunity employer](#) and does not discriminate on the basis of race, color, religion, sex (including pregnancy and gender identity), national origin, political affiliation, sexual orientation, marital status, disability, genetic information, age, membership in an employee organization, retaliation, parental status, military service or other non-merit factor.*