



**Department of Health and Human Services (HHS)**  
**Food and Drug Administration (FDA)**  
**Center for Devices and Radiological Health (CDRH)**  
**Office of Science and Engineering Laboratories (OSEL)**

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**Position Title:** Polymer Chemist /Materials Scientist (Staff Fellow)

**Location:** Silver Spring, Maryland, FDA Headquarters, [White Oak Campus](#)

**Application Period:** Monday, January 3, 2022, through Wednesday, February 2, 2022

**Salary Range:** \$87,198 - \$134,798 (commensurate with education and experience)

**Position Information:** Full-Time – Appointment term of three (3) years, with possibility of being extended.

**Who may be considered:** US Citizens; Permanent Residents; and Non-Citizens

**Introduction:** The U.S. Food and Drug Administration ([FDA](#)) is the regulatory, scientific, public health and consumer protection agency responsible for ensuring all human and animal drugs, medical devices, cosmetics, foods, food additives, drugs and medicated feeds for food producing animals, tobacco and radiation emitting devices safe, and effective. The mission of the Center for Devices and Radiological Health ([CDRH](#)) is to protect and promote the public health by performing essential public health tasks by making sure that medical devices and radiological health products are safe for people in the United States. The Office of Science and Engineering Laboratories ([OSEL](#)) is dedicated to promoting patient access to innovation, safe and effective medical devices through best-in-the-world regulatory science. The Division of Biology, Chemistry and Materials Science ([DBCMS](#)) within CDRH's OSEL, promotes and protects public health by identifying logical and physiochemical mechanisms of interaction between the human body and medical devices, the end goal being safety and effectiveness thereof.

**Position Summary:** The DBCMS has openings for two (2) Staff Fellows/Engineers. The candidates should have a strong background in Polymer Chemistry, Physics, Materials Science, Materials Engineering and/or Chemical Engineering.

**Position Title: Staff Fellow - Polymer Chemist:** DBCMS is seeking a candidate with laboratory experience in polymer transport and diffusion, polymer degradation, and biomechanical compatibility/stability of polymers used in medical device applications. Candidates should additionally have strong experience in analytical chemistry techniques such as liquid chromatography-mass spectrometry (LCMS), high-performance liquid chromatography (HPLC), and inductively coupled plasma mass spectrometry (ICP-MS) and their application to material characterization.

**Position Title: Staff Fellow - Materials Scientist:** DBCMS is seeking a candidate with a strong background in mathematical and computational modeling with expertise in mass transport modeling of polymeric systems used in medical device applications. Candidates should also have laboratory experience in transport, degradation, and stability of polymers used in medical devices. Experience with material compatibility to various sterilization modalities is highly desired.

These Staff Fellow positions involve laboratory and/or computational research to develop new and innovative



approaches to scientific testing. The Staff Fellows will also serve as a technical authority in the scientific analysis of the safety and effectiveness of medical devices; provide an authoritative analysis of scientific data submitted to the Agency; and provide policy or consulting support for reviews of new medical devices in the areas of material science and chemical characterization. The successful candidates will generate written technical and scientific documents for peer-reviewed publications and consulting support activities. Excellent speaking and writing skills in English are required.

**Educational Requirements:** Applicants must possess a Ph.D. or equivalent degree in Polymer Chemistry, Materials Science, Materials Engineering, Chemical Engineering, or a related scientific field. Applicants who have completed part or all their education outside the U.S. must have their foreign education evaluated by an accredited organization to ensure that the foreign education is comparable to education received in accredited educational institutions in the U.S. This evaluation must also be provided by midnight Eastern Time on the closing date of this vacancy announcement. For more information on Foreign Education verification, visit the U.S. Department of Education. Another listing of services that can perform this evaluation is available at the National Association of Credential Evaluation Services (NACES) website.

**Qualifications:** Please document knowledge, skills, and abilities relevant to each area described below:

- Ph.D. from an accredited university in Materials Science and Engineering, Chemistry, Engineering, or related scientific fields.
- At least three (3) years of experience planning and conducting research in one or more of the following areas: material science, chemical characterization and method development, development of computational tools and data science, quantification methods in chemical characterization, and chemical equivalent studies related to medical devices.
- Demonstration of a track record of independent work is required.
- Demonstrated ability to participate in and contribute to multi-disciplinary teams and work groups to resolve difficult or controversial research questions.
- Excellent scientific writing and communication skills.

In addition to the above:

**Staff Fellow -Polymer Scientist:**

- Experience reviewing, analyzing, and using scientific data or other information to advance and convey understanding of material science and chemical characterization in medical device examination, including understanding ISO 10993 – part 18 as well as use and understanding all other medical device related standards.
- Knowledge of the scientific principles and practices associated with designing experiments to address research topics in chemical characterization materials and data science.
- Experience with accurate quantification of compounds, use of chemical equivalent studies as it relates to materials and manufacturing of materials, and use of chemical characterization methods and data science methodology as it relates to medical devices.

**Staff Fellow - Materials Scientist:**

- Experience reviewing, analyzing, and using scientific data or other information to advance and convey understanding of material science to gas, chemical, liquid and/or radiation sterilization.
- Experience in mathematical and computational modeling related to mass transport modeling of polymeric systems.
- Laboratory experience in the evaluation of polymer performance including degradation and stability is recommended.



**How to Apply:** Submit an electronic resume or curriculum vitae, cover letter containing describing why you are uniquely qualified for the position(s), and a copy of unofficial transcripts all in one document (**Adobe PDF**) to [CDRH-OSEL-Opportunities@fda.hhs.gov](mailto:CDRH-OSEL-Opportunities@fda.hhs.gov), with Job Reference code **"2020-OSEL-DBCMS-025"** in the subject line. Applications will be accepted through **February 2, 2022**. Contact Denise Townsend for Questions: [Denise.Townsend@fda.hhs.gov](mailto:Denise.Townsend@fda.hhs.gov)

### **Additional Announcement Information**

- 1. COVID-19:** Due to COVID-19, the Agency is currently in an expanded telework posture. If selected, you may be expected to temporarily telework, even if your home is located outside the local commuting area. Once employees are permitted to return to the office, you will be expected to report to the duty station listed on this announcement within 45 days. At that time, you may be eligible to request to continue to telework one or more days a pay period depending upon the terms of the agency's telework policy. As required by Executive Order 14043, Federal executive branch employees are required to be fully vaccinated against COVID-19 regardless of the employee's duty location or work arrangement (e.g., telework, remote work, etc.), subject to such exceptions as required by law. If selected, you will be required to be vaccinated against COVID-19 and will receive instructions on how to provide documentation.
- 2. Security and Background Requirements:** 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. 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.
- 3. Benefits:** The Federal Government offers a comprehensive benefits package. Explore the major benefits offered to most Federal employees at <https://www.usa.gov/benefits-for-federal-employees>
- 4.** For more information about Office of Science and Engineering Laboratories (OSEL) at FDA/CDRH: <https://www.fda.gov/about-fda/cdrh-offices/office-science-and-engineering-laboratories>.
- 5.** Travel, transportation and relocation expenses **will not** be paid.