



FRED HUTCH
CURES START HERE

Post-Doctoral Research Fellow, Structural Biology

(Job ID 12660)

Overview

Cures Start Here. At Fred Hutchinson Cancer Research Center, home to three Nobel laureates, interdisciplinary teams of world-renowned scientists seek new and innovative ways to prevent, diagnose and treat cancer, HIV/AIDS and other life-threatening diseases. Fred Hutch's pioneering work in bone marrow transplantation led to the development of immunotherapy, which harnesses the power of the immune system to treat cancer. An independent, nonprofit research institute based in Seattle, Fred Hutch houses the nation's first cancer prevention research program, as well as the clinical coordinating center of the Women's Health Initiative and the international headquarters of the HIV Vaccine Trials Network. **Careers Start Here.**

The [Stamatatos/Pancera lab](#), within the Vaccine and Infectious Disease Division, works towards the development of safe and effective vaccines against HIV-1 and malaria. Our major emphasis is the design of protein immunogens and understanding the immune response following vaccination or natural infection. The subgroup led by Dr. Pancera focuses on structural characterization of these immunogens and their immune responses. The laboratory utilizes a wide range of in vitro and in vivo systems and cutting-edge technologies and techniques. Experimental approaches include high-throughput crystallography, specialized immunological methodologies and assays, molecular and cellular biology techniques, bioinformatics, and computational approaches.

Our lab is seeking an outstanding Postdoctoral Fellow to work on a project involving the characterization of the humoral immune response following vaccination against HIV, malaria or other pathogens using X-ray crystallography and cryoEM and designs of novel immunogens.

Responsibilities

- Perform recombinant protein expression (coli, insect cells, mammalian cells) and purification including affinity purification, ion exchange and FPL
- Determine X-ray crystal structures of the proteins/antibodies complexes
- Use Electron Microscopy for screening purposes (negative stain) and single particle cryoEM to determine the molecular structures of antigen-antibody complexes
- Use of biophysical methods such as ITC and Bio Layer interferometry/SPR or ELISA
- Initiate and carry out scientific projects under the supervision of Dr. Pancera
- Develop and demonstrate a thorough understanding of the scientific literature relating to the research topics.
- Conduct and publish research in HIV structural biology

Qualifications

PhD in Structural Biology, Protein Chemistry, Biochemistry or a related field is required with significant expertise in X-ray protein crystallography. Candidates with backgrounds in areas such as protein biochemistry, and vaccine development are strongly encouraged to apply. On-hands experience with diverse aspects of Molecular Biology is required. Experience in X-ray crystallography including up-to-date knowledge of relevant programs

including CCP4, and Phenix packages, protein purification, protein characterization, and a strong publication history are strongly desired. Knowledge of cryoEM is not required but desirable. Additional expertise with tissue culture and immunological assays is a plus.

The candidate must be a ‘risk taker’, show initiative, willingness to take up new skills and responsibilities, and be a team player. Excellent attention to details and the ability to work independently are essential to success in this position, as are good communication and organizational skills. The candidate must be self-motivated, able to multitask and to work within a very collaborative environment. Salary will be commensurate with (appropriate) experience.

Our Commitment to Diversity

We are committed to cultivating a workplace in which diverse perspectives and experiences are welcomed and respected. We are proud to be an Equal Opportunity and VEVRAA Employer. We do not discriminate on the basis of race, color, religion, creed, ancestry, national origin, sex, age, disability, marital or veteran status, sexual orientation, gender identity, political ideology, or membership in any other legally protected class. We are an Affirmative Action employer. We encourage individuals with diverse backgrounds to apply and desire priority referrals of protected veterans. If due to a disability you need assistance/and or a reasonable accommodation during the application or recruiting process, please send a request to our Employee Services Center at escmail@fredhutch.org or by calling 206-667-4700.