POSITION OBJECTIVE

The Case Western Reserve University Center for Proteomics and Bioinformatics (CPB, https://case.edu/medicine/nutrition/case-center-proteomics-and-bioinformatics) seeks an enthusiastic postdoctoral scholar, fully funded through the recently stood up Case Center for Biomolecular Structure and Integration for Sensors (BioSIS), to join our Center for Synchrotron Biosciences (CSB, https://case.edu/medicine/csb/) team based at the National Synchrotron Light Source II (NSLS-II, https://www.bnl.gov/ps) at Brookhaven National Laboratory on Long Island, NY. The CSB operates the XFP Partner beamline at NSLS-II for X-ray footprinting, and promotes the application of this method and other synchrotron tools to a variety of structural biology problems. The Case BioSIS program leverages the CSB technology platform and other resources at the CWRU School of Medicine to develop recognition elements for a variety of biomedically important biomarkers and integrate them into biosensors. The successful candidate will contribute to the application of X-ray footprinting and related methods to the goals of the BioSIS program and other structural biology problems, and will participate in supporting day-to-day operations and ongoing technological developments at the NSLS-II XFP beamline.

ESSENTIAL FUNCTIONS & RESPONSIBILITIES

1. Support scientific efforts in the BioSIS program through design and execution of X-ray footprinting experiments, including analysis of mass spectrometry data and presentation / publication of results.
2. Work closely with the CSB XFP lead beamline scientist to provide effective, expert scientific support for internal (CWRU) and external investigators conducting X-ray footprinting experiments on the XFP beamline.
3. Contribute to development of new endstation instrumentation and experimental workflows on the XFP beamline.
4. Develop research collaborations applying X-ray footprinting and other synchrotron-based structural biology techniques (*e.g.* crystallography, SAXS, Cryo-EM), based on interests, to effectively disseminate footprinting and multimodal structural biology approaches.

QUALIFICATIONS

Ph.D. in Chemistry, Biochemistry, Biophysics or other relevant field.

REQUIRED SKILLS

1. Strong background in structural biology and related fields as evidenced by publication record.
2. Experience with mass spectrometry data analysis and instrumentation.
3. Excellent written and oral communication skills.

PREFERRED SKILLS

1. Familiarity with / experience in synchrotron-based structural biology methods.
2. Interest / skills in hands-on instrumentation development, particularly for fluid handling.
3. Experience / interest in Python programming for scientific applications.

WORKING CONDITIONS

This position is based full-time off-campus at the National Synchrotron Light Source II, a US Department of Energy user facility at Brookhaven National Laboratory on Long Island, NY. Evening and weekend work will be necessary from time to time.

TO APPLY

To apply, send a CV, cover letter describing your qualifications and interest in the position, and the names and contact details of three references to Erik Farquhar, efarquhar@bnl.gov, XFP lead beamline scientist.