

Post-doctoral Position for Crystallographer to Support Drug Discovery Research

The laboratory of Dr. Daniel Flaherty in the Borch Department of Medicinal Chemistry and Molecular Pharmacology at Purdue University is seeking a post-doctoral research associate in the field of protein X-ray crystallography to support drug discovery efforts against a novel antibacterial target of interest in our laboratory on a newly funded NIH grant. The laboratory is a vibrant research environment and highly interdisciplinary with medicinal chemistry, biochemistry, and structural biology teams all supporting antibiotic drug discovery efforts. The successful candidate will gain valuable experience understanding the drug discovery process and contributing to a team for advancement of molecules. Required degree/skills: PhD (or expected PhD) with experience in protein crystallography and biophysical techniques with a proven track record of successfully solving ligand-bound crystal structures. Required experience includes designing plasmids, cloning, mutagenesis, protein preparation, protein purification, and a strong background in utilizing *PHENIX* and *COOT* or other comparable software for structure determination. Desired Skills - Candidates with experience in any of these areas would also receive preferential review: Experience designing and executing biochemical assays for quantifying protein interactions with small molecules, such as with surface plasmon resonance (SPR) or isothermal titration calorimetry (ITC), microbiological assays (MIC, time-kill, etc).

The candidate would have access to world-class facilities and instrumentation to support their work (crystallization drop-setting robots, screen optimization robots, plate imaging robots/hotel, walk-in plate incubator rooms, and rotating-anode home X-ray sources) within the Crystallography Core located in the Hockmeyer Hall of Structural Biology. Synchrotron data collection is also a 2-hour drive from our laboratory at the Advanced Photon Source (APS) at Argonne National Laboratory with remote data collection capabilities. Other responsibilities include managing data collection time/trips, maintaining a laboratory notebook, assisting graduate students in crystallography, and manuscript preparation. This position is funded by a grant from the National Institutes of Health in search of novel inhibitors for a new antibacterial targets. Many of the targets have yet to have structures solved offering the opportunity for impactful science. The position offers a competitive salary commensurate upon experience plus benefits and is contingent upon meeting progress milestones. The successful applicant will be assessed for productivity on a bi-annual basis with the option of yearly renewal if agreed upon by both parties.

Interested candidates should submit a cover letter, CV and at least 3 references that are familiar with the candidate's experience and research potential to <https://careers.purdue.edu/job-invite/17056/>. The position is open immediately, however, start date is flexible and negotiable depending on the availability of the candidate. For more information, please visit <https://www.flahertylab.com/positions>