

Postdoctoral Associate Positions

X-ray and Electron-Based Studies of Biomolecular Structure and Function

Cornell University

Ithaca, NY, USA

Applications are invited for postdoctoral positions in development and application of instrumentation and methods for time-resolved crystallography, time-resolved cryo-EM, serial crystallography, and small-angle X-ray scattering of biomolecular systems. This project is under the supervision of Physics Prof. Robert Thorne (who is the founder of MiTeGen, LLC). Examples of the kind of work involved are described in IUCrJ 8, 784-792 (2021), IUCrJ 8, 867-877 (2021), Acta Cryst. D 7, 628-644 (2021), and Biophys. J. 104, 227-236 (2013). Candidates should be interested in designing, building, and troubleshooting experimental apparatus, and preferably should have some experience in synchrotron-based X-ray science or in electron microscopy. Candidates will gain exposure to a variety of cutting-edge methods for biostructural science and to the fundamental physical ideas underlying these methods, providing a strong basis for a variety of subsequent careers.

Applicants may have a Ph.D. in physics, biophysics, applied physics, chemistry, materials science, chemical engineering, biomedical engineering, mechanical engineering, molecular biology or related fields. Relevant skills include CAD design, microfabrication, machining/3D printing, apparatus construction, interfacing and testing, optical system design and assembly, robotics, and programming for data collection and experimental control. Additional relevant skills that we can provide training in include protein preparation and crystallization, synchrotron-based X-ray data collection, cryo-EM data collection, and biomolecular structural analysis and modeling.

Cornell University has outstanding facilities to support this work, including the Cornell Nanofabrication Facility (<https://www.cnf.cornell.edu/>), the Cornell High-Energy Synchrotron Source (<https://www.chess.cornell.edu/>), an electron microscopy facility (<https://www.ccmr.cornell.edu/category/user-instruments/electron-and-optical-microscopy/>), and a well-equipped user machine shop (<https://www.lassp.cornell.edu/facilities/machine-shop>). All these facilities are staffed by professionals who can provide training and support.

The successful candidate(s) will refine and acquire a large experimental skill set, equipping them to tackle challenging problems in biological science/technology and engineering.

Start dates are flexible and can be as early as April 2022.

Application material should be submitted via [Academic Jobs Online](#) or [Indeed](#). Complete applications will include a **brief cover letter**, a **CV**, and a **summary of research experience and interests**. Recommendation letters will be requested after application screening.

Cornell University is located in beautiful Ithaca, New York, surrounded by gorges and waterfalls and the Finger Lakes wine growing region.

Diversity and Inclusion are a part of Cornell University's heritage. The College of Arts and Sciences at Cornell embraces diversity and seeks candidates who will create a climate that attracts students and faculty of all races, nationalities, and genders. We strongly encourage women and underrepresented

minorities to apply. Cornell University is a recognized EEO/AA employer and educator, valuing AA/EEO, Protected Veterans, and Individuals with Disabilities.