
Job Title	Postdoctoral Fellow
PVN ID	CC-2109-004258
Category	Research
Location	The CITY COLLEGE of NEW YORK
Department	Chemistry and Biochemistry
Status	Full Time
Salary	Depends on qualifications
Hour(s) a Week	35
Closing Date	Nov 22, 2021 (Or Until Filled)

General Description

The Khayat group, located in City College of New York, will hire a postdoctoral fellow for performing cryo-electron microscopy (cryo-EM) and tomography (cryo-ET) studies. Candidates should exhibit competency in data processing of either crystal diffraction for X-ray crystallography or images for cryo-EM/ET via publications in peer-reviewed journals. The position is currently funded for four years.

The group studies eukaryotic host-pathogen (CRESS-DNA virus, Coronavirus, and human parainfluenza virus) interaction, membrane fusion of Gram-negative bacteria, and antibiotic resistance mechanism of ribosomes. The postdoctoral candidate will be responsible for performing cryo-EM/ET grid preparation, screening, data collection, image reconstruction and analysis. The projects involve single particle analysis, tomography with sub-tomogram averaging, and in-situ studies. Personnel in the research group or collaborators will provide samples for cryo-EM/ET studies. This is a fantastic opportunity to master cryo-EM/ET by concentrating on the microscopy aspect of the project. We have multiple data sets that need limited processing for completion. Other data sets are at the initial stages of data processing. Opportunity for rapid publications is high.

The group is within proximity to and has regular access to the instrumentation at the New York Structural Biology Center (NYSBC). NYSBC operates multiple Titan Krios microscopes (all equipped with Gatan K3 direct electron detectors, energy filters, and phase plates), multiple 200/120 kV microscopes for screening grids, equipment for high pressure freezing and FIB-milling for *in situ* cryo-electron tomography.

Candidates must have a Ph.D., be highly motivated, exhibit independence, and have experience with or be enthusiastic about mastering cryo-EM/ET. Thorough training will be provided. Computational skills are an absolute necessity. The candidate is required to provide training to graduate students and future postdoctoral fellows. Salary will be competitive for the NYC area and be commensurate with experience and prior success.

New York City is a vibrant and eclectic city known for its exceptional culture, arts, fashion, food, nightlife, fast pace, and unparalleled energy.

Other Duties

1. Data processing using available software
2. Installation of additional software to use
3. Developing scripts for transferring data between multiple software
4. Presenting data to collaborators and researchers within the group
5. Documenting research activities
6. Providing training for other personnel in the group
7. Communicating research activities on a weekly basis

Qualifications

1. Independence and intellectual strength to drive project as evidenced by publications in peer-reviewed journals
2. Exercise intellectual leadership
3. Communicate effectively
4. Using command line interface in Linux or OS X
5. Writing scripts