

Postdoctoral Position for CryoEM/ET of Malaria Parasites at Columbia University

Position Summary

The Ho Laboratory is seeking a talented and enthusiastic postdoctoral research scholar to join us in using single particle cryo electron microscopy (cryoEM) and in situ cryo electron tomography (cryoET) to explore how membrane protein complexes mediate host-pathogen interactions in the malaria parasite *Plasmodium falciparum*. Projects will be focused on using cryoFIB milling and cryoET to directly visualize the host-pathogen interface in parasite-infected human red blood cells, as well as single-particle cryoEM structure determination of native membrane protein complexes purified directly from Malaria parasites. Our lab is located in the Department of Microbiology & Immunology at Columbia University Irving Medical Center in New York City, New York. More information here: www.cmholab.org/research. If interested, please send a cover letter, CV, and contact information for three references to Dr. Chi-Min Ho at ch3516@cumc.columbia.edu.

We are looking for an innovative, resourceful and resilient scientist who enjoys learning new things, meeting new people, and being part of an open, collaborative team. The successful candidate will join a vibrant, collaborative research community and enjoy access to the state-of-the-art electron microscopy facilities at Columbia, including:

- Multiple Titan Krios microscopes with a Gatan BioQuantum energy filter, Gatan K3 direct electron detector, and Volta phase plate
- A dual-beam Aquilos cryo-FIB/SEM microscope, Leica cryo-correlative fluorescence light microscope, Zeiss LSM800 cryo-confocal with AiryScan detector
- A Glacios screening microscope with a Gatan K3 direct electron detector
- An F20 screening microscope with a K2 Summit direct electron detector

Salary and benefits are competitive based on experience.

Qualifications

- A Ph.D or equivalent in biophysics, structural biology, materials science, or physics.
 - A strong background and proven track record in one of more of the following areas: SEM, TEM, nanofabrication using a FIB-SEM or cryoFIB-SEM, cryoET and/or single particle cryoEM.
 - Previous experience with Python and/or MATLAB is a plus.
 - Strong communication, interpersonal and organizational skills, and excellent attention to detail.
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