

Postdoctoral Position in Biochemistry and Electron Microscopy of Membrane Proteins

Position Summary:

The Microbiology Department at the **University of Alabama at Birmingham (UAB)** invites applications for a postdoctoral research position in biochemistry and structural biology, with a strong emphasis on cryo-electron microscopy. This position offers an exciting opportunity to investigate the structure and function of **essential membrane proteins of *Mycobacterium tuberculosis*** using cryo-electron microscopy and tomography, and cutting-edge biochemical techniques.

The successful candidate will join a vibrant and multidisciplinary team consisting of the labs of Drs. Michael Niederweis and Gino Cingolani working at the interface of structural biology, molecular biology, and biochemistry. This position is funded by a new NIH R01 grant. The position is available immediately for up to 5 years with the possibility of a promotion.

Key Responsibilities:

- Design and perform biochemical and biophysical experiments for protein purification and characterization.
- Prepare samples for cryo-EM and vitrification.
- Analyze cryo-micrographs using state-of-the-art software pipelines (e.g. RELION, cryoSPARC).

Qualifications:

Essential:

- A PhD in biochemistry, structural biology, molecular biology, or a related field.
- Experience in protein expression and purification.
- Strong publication record (at least one first-author paper in an international peer-reviewed journal).

Desirable:

- Hands-on experience with cryo-EM screening and data collection using EPU.
- Proficiency in analyzing electron density maps, including building and refining atomic models, structural analysis, and modeling tools (e.g. Coot, Phenix, Chimera).
- Experience with cryo-electron tomography or *in situ* cryo-EM.

We Offer:

- UAB has an outstanding EM infrastructure, including several Vitroboots, a Glacios2 with Falcon 4i, a Talos F200C equipped with Ceta-F and Direct Electron Apollo camera, and access to a Titan Krios through national EM labs.
- Collaborative environment with access to proteomics, genomics, and computational biology support.
- Competitive salary of \$62k for first year postdoc + benefits (salary increases with experience)
- UAB is one of the top research institutions in the nation and is located in an affordable city with many cultural and outdoor attractions.

How to Apply:

Please submit a single PDF to mnieder@uab.edu and gcingola@uab.edu containing a cover letter describing your research experience, interests, and career goals, a CV including a list of publications, and the contact information of at least 2 academic referees.