

A postdoc position is immediately available for a highly motivated individual to study membrane enzymes, transporters and adhesion molecules that are important therapeutic targets in hematology and cardiovascular biology. To support the study, Dr. Weikai Li's lab at Washington University in St. Louis has developed unique multidisciplinary approaches that combine novel structural biology and mass spectrometry methods with biochemistry and cell biology. Recent publications of the lab include those in *Science*, *Science Adv.*, *EMBO J* and *NSMB*. The lab is well funded by five grants from NIH and other foundations, which can support the entire duration of postdoctoral study. More information of the lab can be found at <https://weikailab.wustl.edu>.

Requirements and Responsibilities

The postdoc candidate should have strong background and publication record in structural biology and biochemistry. The postdoc will have a unique opportunity to work on cryo-EM and crystal structures of membrane proteins, study their biochemistry, and combine with mass spectrometry to elucidate their native states and interactions. This combination will greatly benefit the future career of the postdoc. Previous trainees have obtained professorship and funding at top universities.

Current projects in the lab include:

- Cryo-EM and crystal structures of several membrane proteins and complexes important in hematology and cardiovascular biology.
- Development of Cryo-EM methods to readily solve structures of most membrane proteins.
- The cellular interactions of tetraspanins that regulate B cell trafficking.
- The cellular organization of tight junction formation mediated by claudins and associated molecules.

Furthermore, the lab culture encourages free exploration, and the fellow is welcome to develop their own research projects and strategies that are of mutual interest. High degrees of motivation and independency are greatly appreciated. On the other hand, the PI is always available to provide advices.

Research Environment: The Washington University Medical School ranks top 5 in the US. The Li lab is well established and equipped in the structural biology, mass spectrometry, biochemistry, and cell biology studies of membrane proteins, and has developed novel methods for these studies, such as live cell footprinting (*NSMB* 2007) and fast structure determination (*Sci. Adv.* 2020). For cryo-EM, the lab gets regular time (about one week in every two months) in using Washington University's own Titan Krios. Crystallization robots and regular APS time are available for crystallography studies. Close collaboration with Dr. Michael Gross lab affords us extensive access to mass spectrometry analyses.

Please send your CV, the names of three references, and a brief email detailing your research interest to weikai@wustl.edu.

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