

The University of Kansas

Protein Structure Laboratory

Dr. Weijun Huang, Director

Mission Statement

The mission of the KU Protein Structure Laboratory (PSL) is to assist researchers working with proteins to obtain high-resolution structures of their proteins by means of X-ray crystallography. The PSL will perform, or will train client scientists to perform, the following services as requested:

1. Attempted crystallization of client's protein.
2. Assessment of crystal quality and collection of diffraction data.
3. Structure solution by molecular replacement.
4. Structure refinement.
5. Preparation of manuscript text, presentation graphics, etc.
6. Aid in analysis/interpretation of protein structure/function vis-a-vis other known structures.
7. Special services such as de novo solution of structure via heavy atom and MAD methods, collection and analysis of synchrotron data, etc.

Service Fees

It is anticipated that several different types of researchers may become clients of the PSL. For example, investigators having considerable experience in crystallography and considerable lab resources of their own may simply want access to a well-maintained X-ray generator. These investigators would then pay only for beam access charges (item 2 below) to cover the maintenance of the generator by the PSL. On the other hand, investigators having no experience in crystallography may want to avail themselves of the full range of PSL services in order to have the PSL tackle the complete job of growing crystals of their protein and determining the protein's structure. When such an extensive interaction leads to a genuine collaboration between the investigator and the PSL director, the following rates may be incorporated into grant application budgets with the PSL director listed formally as a co-investigator on the project.

1. General Consulting. There is no charge for consultation about potential structure determination projects, or for professional assistance in preparation of grant applications in which the PSL Director is a named, funded co-investigator (=15% FTE) or in which a specific agreed upon budget for the PSL is included as part of the direct costs of the grant.

Please contact Dr. Weijun Huang at the KU Structural Biology Center on West Campus, 2121 Simons Drive, Lawrence, KS 66047 (weijun@ku.edu; 785-864-3772).

2. Consumables and General Lab Maintenance. \$24 per 24-well crystallization plate. Individuals using the Crystallization Lab for setting up and monitoring crystal growth experiments will be billed at a flat rate of \$24 per 24-well plate. This charge will cover the costs of the plates, crystal screening reagent kits and all other standard reagents. (Project-specific consumables, if any, are billed at 100% of cost including shipping). This one fee also includes miscellaneous common consumables (printer toner cartridges, paper, plasticware, cryogenics for crystal storage, etc.) and access to use of all the computers, software and other equipment of the PSL (a \$75,000 inventory). Note that this fee does NOT include use of the X-ray generator (see below). Clients may also be billed for maintenance necessitated by improper use of PSL facilities.

3. X-ray Generator Use/Maintenance Fee. \$5.00 per hour. All projects utilizing the X-ray generator will be billed at \$5.00 per hour of beam time, start-to-finish.

4. Professional Service by PSL Personnel. \$46/hour. In cases when the PSL staff perform research-related tasks the time consumed will be billed to the individual sponsored project, regardless of the source of project funding. The tasks performed by PSL Personnel could include setting up and monitoring crystallization experiments, evaluation of crystal suitability for collecting data, collecting a full set of diffraction data, and data interpretation including structure solution and preparation of presentation graphics publications.

Acknowledgement of Support from COBRE-PSF and PSL Staff

All users and clients of the COBRE Core B (PSL) facilities must agree to acknowledge in their publications and presentations the support of the NIH COBRE in Protein Structure and Function and NIH grant RR-017708. In addition, all users and clients agree to recognize appropriately the contributions of PSL staff (co-authorship or acknowledgement by name, depending on the nature of the contribution), in accordance with published policies of the KU-Molecular Structures Group. For details see the MSG website at www.msg.ku.edu/~msg/.