BIO-603(SH) **Practical - Stahlberg Lab**

Stahlberg Henning

Cursus	Sem.	Type
Molecular Life Sciences		Obl.

Language of teaching	English
Credits	1
Session	
Exam	Oral presentation
Workload	30h
Hours	**28**
Lecture	6
Exercises	6
Practical work	16
Number of positions	**3**

Frequency

Every year

Remark

3-day Block course, every year in January. To register, contact EDMS

Summary

Cryo-electron microscopy structural analysis of proteins. The course aims at demonstrating the workflow from sample purification to determining the atomic structure of a soluble or membrane protein.

Content

Students will be introduced to the principles of protein purification, biophysical characterization of the state of the proteins, and structure determination by cryo-EM. The latter will involve sample preparation for negative stain EM and cryo-EM, image recording in an advanced and automated electron microscope, image processing, and 3D structure reconstruction.

Note

Please note that you are not allowed to inscribe in your own group!
Note that 3 practical courses are mandatory for all EDMS students and that they have the priority; each course has between 2 to 4 possible slots.
Therefore, please do not register by yourself to this course, this will be done by the EDMS program administrator!

Keywords

Structural biology, membrane protein structure, cryo-electron microscopy, image processing, 3D reconstruction

Resources

Websites

- https://www.epfl.ch/labs/lbem/