

Day 1: Monday 3th June, morning, 3 lectures (9:00-12:00 Stora Focussalen KBC KBF301)

- 9:00 Introducing the course, presentation of teachers and participants [all teachers]
- 9:30 Basic function of a TEM, and special requirements for cryo-EM [Camilla Holmlund]
- 10:30 Vitrification and how to work with cryo-EM samples [Linda Sandblad]
- 11:15 Increasing Automation and Throughput in cryoEM: news from Thermo Fisher Scientific [Sonja Welsch]
- 11:45 Brief introduction into each practical [Linda, Marta and Jose Miguel]

Day 2: Tuesday 4th June, morning 3 lectures (9:00-12:00 Stora Focussalen KBC KBF301)

- 9.00 Get ready for cryo-EM, biochemical methods and negative staining, and repetition for day 1 [Michael Hall]
- 9:45 Direct electron detectors, motion correction and CTF [Lars-Anders Carlson]
- 10:45 Practicalities of data acquisition, Single particle data collection [Marta Carroni]

Day 3: Wednesday 5th June, morning 3 lectures (9:00-12:00 Stora Focussalen KBC KBF301)

- 9:00 Starting single particle processing, pre-processing and introduction to 3D reconstruction methods, single particle methodology [Jose Miguel de la Rosa Trevin]
- 9:45 Tomography, sub-tomogram averaging and inspiration by cryo-EM projects [Marta Carroni]
- 10:45 Cryo-EM of membrane proteins [Thomas Boesen]