In the last 5 years, interest in cryo-electron microscopy has grown exponentially due to groundbreaking new developments in instrumentation. This has resulted in the 2017 Nobel Prize in chemistry being awarded to the field of cryo-EM. Institut Pasteur has invested significantly in this technology with the purchase of 4 high-end systems and the erection of the Nano-Imaging Core Facility. This 2 week hands-on course will teach all the basics.

Objectives of the course:
This course
• will require extensive preparation by taking the online EM-learning.com video course.
• will be almost 100% hands-on, high intensity training, in sample preparation, sample screening, microscope operation and data acquisition with a small group.
• will cover the basic single particle analysis (SPA) cryo-EM workflow with the high-end microscopes (Glacios) installed at Institut Pasteur.
• will train and test participants to be certified autonomous users of the Institut Pasteur Glacios microscopes in SPA.
• will form the basis for courses on Titan operation and tomography.

Program of the course:
The course program will span 2 weeks excluding the weekend and will have a maximum of 6-8 participants. Participants will be using 2 Glacios microscopes and 2 Vitrobots under the supervision of 2 instructors.
The course will start with extensive practice in sample preparation and screening in the first week and focus more on microscopy operation and data collection in the second week. Participants need to demonstrate the full SPA workflow on a well behaving test sample from sample preparation to data acquisition for the final test.
The course is in English.

Online registration:

Director:
Matthijn Vos

Course instructors: Jean-Marie Winter
Stéphane Tachon

Practical information:
Deadline for application: April 15, 2020
Attendees: 8 students
Contact: matthijn.vos@pasteur.fr