



## Course for Ph.D. students

## **Cryo-electron Microscopy of Biological Macromolecules**

(4 ECTS)

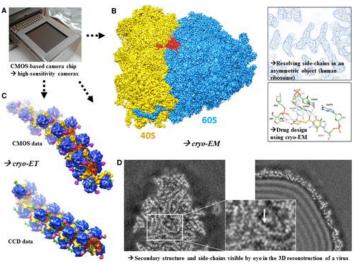
Ben Luisi, Visiting Professor and Giulia Paris University of Cambridge (UK) Course Language: English



The course will take place according to the following agenda:13/5/2024 - room C, Pharmacy Building (14:30 - 17:30)214/5/2024 - computer lab (14:30 - 17:30)215/5/2024 - computer lab (14:30 - 17:30)216/5/2024 - computer lab (14:30 - 17:30)2

20/5/2023 – computer lab (14:30 - 17:30) 21/5/2024 – computer lab (14:30 - 17:30) 22/5/2024 – computer lab (14:30 - 17:30) 23/5/2024 – computer lab (14:30 - 17:30)

On May 6, 2024, a preliminary and mandatory session (14:30 - 17:30) will be held in Multimedia Language Laboratory 1 (Earth Sciences Building) to prepare students for the activities proposed in the course.



The course is organized by the Ph.D. Course in Drug Sciences and it is open to all the Ph.D. students of the University of Parma.

To attend the course please fill the form: <u>https://bit.ly/cryoem4phd</u>

Enrolment is open until 03/05/2024



## For further information:

- structure and side chains visible by eye in the 3D reconstruction of a virus Orlov et al., Biology of the Cell (2016) • barbara campanini@
  - <u>barbara.campanini@unipr.it</u>

Cryo-electron microscopy (Cryo-EM) is a rapidly advancing structural biology technique that allows the determination of the three-dimensional structures of biological macromolecules. Cryo-EM has revolutionized the field of structural biology by providing a powerful tool for visualizing the structure of biological molecules either in their native state at near-atomic resolution (single-particle analysis, SPA) or in their natural environment (tomography). After a brief introduction to the principles and applications of cryo-EM, the course will provide a practical hands-on experience with both cryo-EM SPA and subtomogram averaging.