

How cryo Electron Microscopy meets chemical structure

November 14-15th, 2018

CNRS
Auditorium Marie Curie
Paris 16^e

NOVEMBER 14th, 2018

- ▶ 9:50am **Opening : Hugues LORTAT-JACOB**, *Institute of Structural Biology, Grenoble, France* & **Carine GIOVANNANGELI**, *ITMO BMSV, Paris, France*

- ▶ 10:00am-11:00am **Plenary Lecture**
“High-resolution structure determination of large and dynamic macromolecular complexes”, **Holger STARK**, *Max Planck Institute for Biophysical Chemistry, Göttingen, Germany*

- ▶ 11:00am-12:30pm **Single-Particle cryo-EM High Resolution 1**
 - ▶ 11:00am-11:40am: “Structure-function studies reveal the mechanism of flavivirus broad cross-neutralization by antibodies”, **Félix REY**, *Structural Virology Pasteur Institute, Paris, France*
 - ▶ 11:40am-12:00pm: “Moving is maturing: Cryo-EM studies of the assembly of eukaryotic small ribosomal subunits”, **Célia PLISSON**, *Eukaryotic Molecular Biology Laboratory, Toulouse, France*
 - ▶ 12:00pm-2:20pm: “Conformations of the serotonin 5-HT₃ receptor”, **Hugues NURY**, *Institute of Structural Biology, Grenoble, France*
 - 12:20pm-12:30pm: Selected talk**

- ▶ 12:30pm-1:45pm Lunch

- ▶ 1:50pm-3:20pm **Single-Particle cryo-EM High Resolution 2**
 - ▶ 1:50pm-2:30pm: “Chemical structure of RNA seen by high-resolution cryo-EM”, **Bruno KLAHOLZ**, *Institute of Genetics and Molecular and Structural Biology, Illkirch, France*
 - ▶ 2:30pm-2:50pm: “The structure and dynamics of the spliceosome”, **Wojtek GALEJ**, *EMBL Grenoble, France*
 - ▶ 2:50pm-3:10pm: “Architecture of a bacterial type 6 secretion system”, **Rémi FRONZES**, *Laboratory of Fundamental Microbiology and Pathogenicity; European Institute of Chemistry and Biology, Bordeaux, France*
 - 3:10pm-3:20pm : Selected talk**

- ▶ 3:20pm-3:50pm Coffee break

▶ 3:50pm-5:50pm

Cryo-Electron Tomography

▶ 3:50pm-4:30pm: “Exploring molecular landscapes inside cells with in situ cryo-electron tomography”, **Ben ENGEL**, *Max Planck Institute of Biochemistry, Munich, Germany*

▶ 4:30pm-4:50pm: “Cryo-electron microscopy : a relevant tool to investigate membrane reshaping”, **Aurélie BERTIN**, *Curie Institute, Paris, France*

▶ 4:50pm-5:10pm: “Cryo-electron tomography of algal viruses”, **Denis CHRETIEN**, *Genetics & Development Institute of Rennes, France*

▶ 5:10pm-5:30pm: “Coupling molecular activation and its functional output through multiscale imaging”, **Dorit HANEIN**, *Pasteur Institute, Paris, France*

5:30pm-5:40pm: Selected talk

5:40pm-5:50pm: Selected talk

▶ 6:00pm-7:00pm

Round table: National strategy in cryo-EM

Daniel BOUJARD (*ANR-PIA INBS / CNRS*)

Bruno ROBERT (*IBiSA*), *FRISBI representative*

NOVEMBER 15th, 2018

▶ 9:00am-10:10am

Image processing and Modelling

▶ 9:00am-9:40am: “Structures of Tau Filaments from Alzheimer’s and Pick’s Disease”, **Sjors SCHERES**, *MRC Laboratory of Molecular Biology, Cambridge, UK*

▶ 9:40am-10:00am: “Non-classification-based image analysis methods for deciphering continuous conformational changes of macromolecular complexes”, **Slavica JONIC**, *Institute of Mineralogy, Materials Physics and Cosmo Chemistry, Paris, France*

10:00am-10:10am: Selected talk

▶ 10:10am-10:40am

Coffee break

▶ 10:40am-12:25pm

New instrumentation and Facilities

▶ 10:40am-11:20am: “Entering the Mainstream: Challenges and Opportunities”, **Bridget CARRAGHER**, *Structural Biology Center, New York City, USA*

▶ 11:20am-11:35am: “Micro-electron diffraction, a cryo-EM method for structural investigations”, **Patrick BRON**, *Structural Biochemistry Centre, Montpellier, France*

11:35am-11:45am: Selected talk

▶ 11:45am-11:55am: “International cryo-EM facility at ESRF, the European Synchrotron”, **Isai KANDIAH**, *European Synchrotron Research Facility, Grenoble, France*

▶ 11:55am-12:05pm: “CryoEM Platform at the IGBMC”, **Tat CHENG**, *Institute of Genetics and Molecular and Structural Biology, Illkirch, France*

▶ 12:05pm-12:15pm: “A glimpse inside the electron microscopy facility at Pasteur Institute”, **Jacmine KRIJNSE-LOCKER**, *PF Pasteur, Pasteur Institute, Paris, France*

▶ 12:15pm-12:25pm: “Elsa the Arctica, the queen of south west”, **Armel BEZAULT**, *Laboratory of Fundamental Microbiology and Pathogenicity; European Institute of Chemistry and Biology, Bordeaux, France*

▶ 12:30pm

Closure