How cryo Electron Microscopy meets chemical structure

November 14-15th, 2018

CNRS
Auditorium Marie Curie
Paris 16e

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-12:30pm: “Conformations of the serotonin 5-HT3 receptor”, Hugues NURY, Institute of Structural Biology, Grenoble, France

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

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**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”, **Jacoline KRIJNSE-LOCKER**, French National Institute of搬移, Institute of Genetics and Molecular and Structural Biology, Illkirch, 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**