



QUANTITATIVE BIOLOGY AXIS

BioHealth department
University of Montpellier

Cryo-EMontpellier

Explore the unseen

September, 11th 2024 | 9h00-18h00



Amphithéâtre Flahault, Institut de Botanique
163 rue Auguste Broussonnet
34090 Montpellier

Registration is mandatory



Plenary lecture from
Dr. Richard Henderson
MRC-LMB, Cambridge (UK)
Nobel Prize in Chemistry 2017

Followed by presentations from selected speakers and discussions on the cutting-edge areas of cryo-EM imaging, including the exploration of macromolecular structures, advancements in structural pharmacology and drug design and the transformative insights into cell biology enabled by cryo-tomography.

Sponsors



Inserm





- 8:30-9:00 Welcome coffee and registration
- 9:00-9:30 **Opening by Jacques Mercier, vice president of research of the University of Montpellier and Pierre-Emmanuel Milhiet, director of the Biology-Health department**
- 9:30-10:30 **Plenary lecture by Richard Henderson, Nobel Laureate in Chemistry 2017, MRC laboratory of Molecular Biology, Cambridge, UK.**
Accomplishments and potential of cryoEM in Structural Biology
- 10:30-10:50 Coffee break - Poster session
- 10:50-12:30 **SELECTED LOCAL SPEAKERS**
- 10:50-11:10 Bernard Mouillac, IGF
Cryo-EM structures of the active and inactive conformations of the arginine-vasopressin V2 receptor
- 11:10-11:30 Joe McKellar, IGMM
Towards the structure of animal Deltavirus particles
- 11:30-11:50 Julien Bous, Karolinska
Structural basis of Frizzled 7 activation and allosteric regulation
- 11:50-12:10 Julie Finkel, CBS
DNA origami self-assembly with complex curved surfaces defined in 3D space
- 12:10-12:30 Guillaume Lebon, IGF
Conformational diversity in class C GPCR positive allosteric modulation
- 12:30-13:50 Lunch break - Poster session
- 13:55-15:20 **PLATFORMS**
- 13:55-14:00 Pierre-Emmanuel Milhiet, director of the Biology-Health division
Introduction
- 14:00-14:20 Laurence Berry, MRI, Montpellier
Cryo or not cryo ? That is the question...
- 14:20-14:40 Joséphine Lai Kee Him, PIBBS-CBS, Montpellier
CryoEM in Montpellier
- 14:40-15:00 Célia Plisson, CBI, Toulouse
From Toulouse, with love and vitreous ice: exploring molecular and cellular structures using cryo-electron microscopy
- 15:00-15:20 Eazhisai Kandiah, ESRF, Grenoble
Harnessing the cryo-EM facility at the ESRF for high resolution structural biology
- 15:20-15:50 **KEYNOTE SPEAKER**
Andrew Kruse, Harvard Medical School, Boston, USA
Activation of the RXFP1 relaxin receptor by diverse agonists
- 15:50-16:10 Coffee break - Poster session
- 16:10-17:30 **SELECTED LOCAL SPEAKERS**
- 16:10-16:30 Charline Mary, CBS
Structural and functional study of a new channel involved in the virulence of pathogenic bacteria
- 16:30-16:50 Benjamin Vitre, CRBM
***In vitro* reconstituted system shows a functional regulation of the mitotic kinesins HSET by intraflagellar transport protein complexes**
- 16:50-17:10 Philippe Rondard, IGF
Structure and allosteric modulation of heterodimeric metabotropic glutamate receptors
- 17:10-17:30 Konstantin Brodolin, IRIM
Control of gene expression via tuning conformational dynamics of transcription machinery
- 17:30-18:00 **ROUND TABLE AND CLOSING REMARKS**