**Program Winterschool - December 12-16, 2022**

**« Biomembranes, Pharmacology and Therapeutics »**

**Monday 12th: Biological membranes and cellular compartments**

13:30-14:30  **Bruno Antonny**: *Lipid membrane territories in the cell*

14:30-15:30  **Joost Holthuis**: *Evolutionary origin of biomembranes*

15:30-16:30  **Hélène Barelli**: *Phospholipid polyunsaturated effects on biophysical properties of PM*

16:30-17:30  **Delphine Bichet**: *Ion channels in all cellular compartments*

**Tuesday 13th: Bio-membranes and cell signaling**

08:30-09:30  **Guillaume Drin**: *Lipid synthesis and cell signaling*

09:30-10:30  **Guillaume Lenoir**: *Regulatory mechanism of eukaryotic lipid flippases*

10:30-11:30  **Thorsten Hornemann**: *Rare disease of sphingolipid metabolism*

11:30-12:30  **Nazzareno D’avanzo**: *Lipid regulation of ion channels*

 **Innovative tools to study membrane lipids**

14:00-15:00  **Romain Gautier**: *Bioinformatic approaches for studying biomembranes*

15:00-16:00  **Takeshi Harayama**: *Gene disruption strategy to analyze and manipulate lipid co-regulatory networks*

16:00-17:00  **Florian Fröhlich**: *Mass spectrometry of membrane lipids*

**Wednesday 14th: Electrical properties of cell membranes**

08:30-09:30  **Olivier Soriani**: *Membrane proteins at the origin of bioelectricity*

09:30-10:30  **Massimo Mantegazza**: *Sodium channels in neurological disorders*

10:30-11:30  **Eric Boué-grabot**: *Synaptic and glial function of ATP P2X receptors in the brain*

11:30-12:30  **Laurent Counillon**: *Lithium isotopic fractionation by transporters and channels*

 **Biophysical and imaging tools to study membrane proteins in cells**

14:00-15:00  **Sylvain Feliciangeli**: *Using fluorescence microscopy to study proteins*

15:00-16:00  **Paula Pousinha**: *Neuro-electrophysiological recording techniques*

16:00-17:00  **Sebastian Fernandez**: *In vivo-fiber photometry and optogenetic*

**Thursday 15th: Innovative tools to study purified membrane proteins**

08:30-09:30  **Isabelle Mus-Veteau**: *Heterologous expression of membrane proteins*

09:30-10:30  **Isabelle Broutin**: *Structural analysis of bacterial membrane proteins*

10:30-11:30  **Catherine Vénien-Bryan**: *Structural analysis of human membrane proteins*

11:30-12:30  **Jérémie Topin & Sébastien Fiorucci**: *Structure-based and ligand-based virtual screening of membrane proteins*

 **Transfer of knowledge on bio-membranes to industry**

14:00-15:00  **Thierry Ferreira**: *Research valorisation*

15:00-15:30  **Isabelle Mus-Veteau**: *From lab to start-up*

15:30-16:00    **Jacques Bodennec, Gaoma Therapeutics :** *innovative lipids derivatives as drug candidates*

16:00-16:30**Reza Sharif-Naemi, PteroTech Inc. *:*** *innovative product blocking the pain caused by lionfish and jellyfish stings*

16:30-17:00    **Sandy Blin:** *Insights into the work of a venture capital analyst in life sciences*

**Friday 16th: Targeting cell membrane components in therapy**

08:30-09:30  **Eric Lingueglia**: *Analgesic effects of mambalgin peptide inhibitors of acid-sensing ion channels*

09:30-10:30  **Anna Fassio**: *Membrane trafficking at the presynaptic terminal: physiological regulation and brain pathology*

10:30-11:30  **Frederic Becq**: *CFTR pharmacological modulators*

11:30-12:30  **Gérard Lambeau**: *Anti-PLA2R1 antibodies in diagnostic and prognostic of nephrotic syndrome*