

ADVANCES IN GLYCOSCIENCES
Glycan & glycosaminoglycans: New
approaches, new functions

IT Bases moléculaires et structurales du vivant

March, 5th 2024

Amphithéâtre Buffon
15 rue Hélène Brion 75013 Paris

- ▶ 8.45 am – 9.00 am **Opening**
- ▶ 9.00 am – 10.30 am **Glycan-pathogens interactions**
- ▶ 9.00 am – 9.25 am *Unusual glycans for unusual entities* - **Cristina de Castro** - University of Napoli Federico II, Italy
- ▶ 9.25 am – 9.50 am *Glycosylation of coronavirus membrane proteins* - **Sandrine Belouzard** - Center for Infection & Immunity of Lille, Lille, France
- ▶ 9.50 am – 10.15 am *Viral glycosylation: From HIV to SARS-CoV-2* - **Max Crispin** - University of Southampton, Southampton, United Kingdom
- ▶ 10.15 am – 10.30 am Selected short talk: *How glycan nanodomains on pathogenic bacteria drive selective recognition by host immune cells* - **Albertus Viljoen** - CNRS IBPS, Paris, France
- ▶ 10.30 am – 11.00 am **Coffee break**
- ▶ 11.00 am – 12.30 pm **Glycosyltransferases structure and multiprotein complexes**
- ▶ 11.00 am – 11.25 am *Deciphering the Mysteries of Glycosaminoglycan Chain Formation* - **Rebekka Wild** - Institut de Biologie Structurale, Grenoble, France
- ▶ 11.25 am – 11.50 am *Structural basis of capsule polymerization in Gram-negative bacteria* - **Marcelo Guerin** - Institute of Molecular Biology of Barcelona, Spain
- ▶ 11.50 am – 12.15 pm *Molecular and functional evolution of vertebrate sialyltransferases: a focus on α 2,8-sialyltransferases (ST8Sia)* - **Anne Harduin** - University of Lille, France
- ▶ 12.15 pm – 12.30 pm Selected short talk: *Functional insights into N-deacetylases/N-sulfotransferases, key players in heparan sulfate maturation* - **Sylvain Vallet** - CNRS IBS, Grenoble, France
- ▶ 12.30 pm – 2.00 pm **Lunch break and poster session**
- ▶ 2.00 pm – 3.15 pm **Genetic diseases and beyond**
- ▶ 2.00 pm – 2.25 pm *Pathomechanisms of Glycosylation Disorders, So much to still learn!* - **François Foulquier** - University of Lille, France
- ▶ 2.25 pm – 2.50 pm *Deciphering the molecular mechanisms associated with B3GALT6 mutations in a rare connective tissue disorder* - **Catherine Bui** - University of Lorraine, France
- ▶ 2.50 pm – 3.15 pm *Modified cyclodextrins: from lysosomal targeting to self-assembling anti-viral agents* - **Matthieu Sollogoub** - Sorbonne University, Paris, France
- ▶ 3.15 pm – 3.45 pm **Coffee break**
- ▶ 3.45 pm – 4.50 pm **Glyco-Drugs : were are we ?**
- ▶ 3.45 pm – 4.10 pm *Glycovaccines to combat bacterial diseases: from concept to first-in-human data and beyond* - **Laurence Mulard** - Institut Pasteur, Paris, France
- ▶ 4.10 pm – 4.35 pm *Glycopolymers as glycosaminoglycan mimetics for glycocalyx engineering* - **Laura Hartmann** - University of Freiburg, Freiburg, Germany
- ▶ 4.35 pm – 5.00 pm *Metabolic inhibitors of glycosylation as potential anti-cancer drugs* - **Thomas Boltje** - Radboud University, Nijmegen, The Netherlands

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March, 6th 2024

Amphithéâtre Buffon
15 rue Hélène Brion 75013 Paris

- ▶ 9.00 am – 10.30 am **Advances in GAG and glycan analysis and interactions**
- ▶ 9.00 am – 9.25 pm *MS-IR toolbox for Glycomics: current performance for human and non-human applications and ongoing developments* - **Isabelle Compagnon** - University of Lyon, France
- ▶ 9.25 am – 9.50 am *Recent Advances in Protein O-Mannosylation: Structure, Function and Disease* - **Adnan Halim** - University of Copenhagen, Copenhagen, Denmark
- ▶ 9.50 am – 10.15 am *Recent developments in mass spectrometry to meet the analytical challenges in Glycosciences* - **David Ropartz** - INRAE, Nantes, France
- ▶ 10.15 am – 10.30 am Selected short talk: *Glycosaminoglycans versus Glycans: How carbohydrate composition influences protein dynamics* - **Stéphanie Baud** - University of Reims, Reims, France
- ▶ 10.30 am – 11.00 am **Coffee break**
- ▶ 11.00 am – 12.30 pm **Molecular Glyco-engineering**
- ▶ 11.00 am – 11.25 am *Mechanisms of ganglioside dimer formation and receptor activity regulation as revealed by single-molecule imaging* - **Kenichi Suzuki** - Gifu University, Japan
- ▶ 11.25 am – 11.50 am *Tag, Detect, Illuminate: Advancing Glycosciences with Chemical Reporter Strategies* - **Christophe Biot** - University of Lille, France
- ▶ 11.50 am – 12.15 pm *Novel lectin-based approaches to target and kill Gb3-positive cancer cells* - **Winfried Römer** - University of Freiburg, Germany
- ▶ 12.15 pm – 12.30 pm Selected short talk: *Development of recombinant lectins array for glycoprofiling* - **Annabelle Varrot** - CNRS CERMAV, Grenoble, France
- ▶ 12.30 pm – 2.00 pm **Lunch break and poster session**
- ▶ 2.00 pm – 3.15 pm **Glycans & clinical biomarkers**
- ▶ 2.00 pm – 2.25 pm *Turning sweet in immunity: glycans at the forefront of chronic inflammation, autoimmunity and cancer* - **Salome Pinho** - University of Porto, Portugal
- ▶ 2.25 pm – 2.50 pm *The glycomics dimension of prevalent diseases* - **Manfred Wührer** - Leiden University Medical Center, Germany
- ▶ 2.50 pm – 3.15 pm *Plasma and urine glycosaminoglycan profiles for noninvasive multicancer early detection* - **Francesco Gatto** - Chalmers University of Technology, Gothenburg, Sweden
- ▶ 3.15 pm – 3.45 pm **Coffee break**
- ▶ 3.45 pm – 4.50 pm **A look to the future**
- ▶ 3.45 pm – 4.00 pm Selected short talk: *Annotation and prediction of protein-carbohydrate interfaces using machine learning approaches* - **Aria Gheeraert** - BIGR Inserm, Paris, France
- ▶ 4.00 pm – 4.25 pm *Is glycoscience keeping up with the Big Data trend ?* - **Frédérique Lisacek** - Swiss Institute of Bioinformatics, Geneva, Switzerland
- ▶ 4.25 pm – 4.50 pm *Multiscale study of LipoPolySaccharides recognition at the bacterial cell surface* - **Cedric Laguri** - Institut de Biologie Structurale, Grenoble, France
- ▶ 4.50 pm – 5.00 pm **Concluding remarks**