

# Program

<b>Tuesday June 04</b>	<b>Conseil Régional des Hauts-de-France, Av. du Président Hoover, Lille</b>
14:00 – 16:00	<b>Registration SialoGlyco 2024 – Coffee</b>
16:00 – 16:30	<b>Welcome for the SialoGlyco 2024</b>
16:30 – 18:30	<b>Opening lectures</b>
16:30 – 17:00	<b>Philippe Delannoy (Lille, France)</b> My sweet life in cancer sialoglycobiology.
17:00 – 17:30	<b>Chihiro Sato (Nagoya, Japan)</b> Is there a polySia-synthesizing enzyme other than ST8SIA2 and ST8SIA4?
17:30 – 18:00	<b>Mark Von-Itzstein (Gold Coast, Australia)</b> Targeting clinically significant sialic acid-recognizing viruses.
18:30 -	<b>Welcome Party</b>
<b>Wednesday June 05</b>	<b>Conseil Régional des Hauts-de-France, Av. du Président Hoover, Lille</b>
<b>Session 1</b>	<b>Genomics and informatics – Chairs : Anne Harduin-Lepers &amp; Christian Bull</b>
9:00 – 9:30	<b>Daniel Bojar</b> Sialic Acid's Symphony: Composing Function Through Sequence.
9:30 – 9:50	<b>Hiromu Takematsu</b> Utilization of transcriptomic analyses, CIREs (correlation index-based responsible enzyme gene screening) to understand sialyl-Lewis X epitope expression.
9:50 – 10:10	<b>Huei-Syuan Jiang</b> Comprehensive Identification of Genes Contributing to the Expression of Siglec-15 Ligands on Osteoclast Precursors by Genome-wide Knockout Screening.
10:10 – 10:30	<b>Sylvain Lehoux</b> Sponsor talk - Lectenz - A novel class of high-specificity affinity reagents for detection and purification of sialo-glycoconjugates
10:30 - 11:00	<b>Coffee break</b>
<b>Session 2</b>	<b>New technologies- Chairs: Daniel Bojar &amp; Kay Hooi Khoo</b>
11:00 - 11:30	<b>Christian Bull</b> Biosynthesis and applications of human sialoglycoproteins.
11:30 - 11:50	<b>Warren Wakarchuk</b> <i>Corynebacterium glutamicum</i> as a Recombinant Platform for the Expression of Bacterial and Eukaryotic Sialyltransferases.
11:50 - 12:10	<b>Daniël Hornikx</b> Light-controlled spatiotemporal desialylation with a photoactivatable sialyltransferase inhibitor.
12:10 - 12:30	<b>Pedro E. Guerrero Barrado</b> Targeting hypersialylation in pancreatic ductal adenocarcinoma models generated with microfluidic devices reverses its malignant phenotype.
12:30 - 13:00	<b>Poster Talks (1 min/poster)</b>
13:00 - 14:00	<b>Lunch</b>

14:00 - 15:00	<b>Poster session 1</b>
<b>Session 3</b>	<b>Chemistry - Chair: Josef Voglmeir &amp; Christophe Biot</b>
15:00 – 15:30	<b>Hiromune Ando</b> Stereo-controlled $\alpha$ -glycosidations of sialic acid and Kdo using macrobicyclic glycosyl donors.
15:30 – 15:50	<b>Venetia Psomiadou</b> Efficient Synthesis of Siglec Ligands: Five-Step Journey from Sialyllactose Precursors.
15:50 – 16:10	<b>Fuming Zhang</b> Synthesis multivalent sialyllactose-conjugated PAMAM dendrimers: Binding to SARS-CoV-2 spike protein and influenza hemagglutinin.
16:10 – 16:30	<b>Naoko Komura</b> First total synthesis of ganglioside SJG-2 isolated from <i>Stichopus japonicus</i> .
16:30 - 17:00	<b>Coffee break</b>
<b>Session 4</b>	<b>Diversity and Evolution - Chair: Yann Guérardel &amp; Michael Jennings</b>
17:00 – 17:30	<b>Josef Voglmeir</b> Divergence in Sialic Acid Biosynthesis in Vertebrates and Invertebrates.
17:30 – 17:50	<b>Ken Kitajima</b> Comparative study of substrate specificity of the deuterostome CMP-sialic acid synthetases.
18:50 – 18:10	<b>Martin Pabst</b> Beyond diseases: sialylated surface layer proteins in ammonium-oxidizing bacteria.
18:10 – 18:30	<b>Moritz Rahm</b> Sialic acid derivatives derived from reduction and oxidation reactions can be found in human.
<b>Thursday June 06</b>	<b>Conseil Régional des Hauts-de-France, Av. du Président Hoover, Lille</b>
<b>Session 5</b>	<b>Metabolic Enzymes - Chair: Philippe Delannoy &amp; Chihiro Sato</b>
9:00 – 9:30	<b>Anne Harduin-Lepers</b> Molecular and functional evolution of vertebrate sialyltransferases.
9:30 – 9:50	<b>Yasuhiko Kizuka</b> LacdiNAc synthase B4GALNT3 has a possible lectin domain and blocks N-glycan capping.
9:50 – 10:10	<b>Martina Mühlenhoff</b> Identification of a second catalytic center in the sialate O-acetyltransferase CASD1.
10:10 – 10:30	<b>Takahiro Nakagawa</b> The effect of metal ions on the activity of Kdn-sialidase from <i>Sphingobacterium</i> sp. strain HMA12.
10:30 - 11:00	<b>Coffee break</b>
<b>Session 6</b>	<b>Cancer - Chair: Tony Lefebvre &amp; Ken Kitajima</b>
11:00 – 11:20	<b>Celso A. Reis</b> The Diversity And Functionality Of The Cancer Glycome: The Major Role Of Sialylation In Oncogenic Processes And Clinical Implications.

11:20 – 11:40	<b>Nurmaa Dashzeveg</b> Chemotherapy induces the loss of sialic acid that promotes metastatic seeding of circulating tumor cells in breast cancer.
11:40 – 12:00	<b>Sandra van Vliet</b> Site-specific reprogramming of the tumor-immune microenvironment by sialic acids.
12:00 – 12:20	<b>Takashi Angata</b> Siglec-15 facilitates lung metastasis of breast cancer in a mouse model
12:20 – 12:40	<b>Jodie Scache</b> Application of sialic acid metabolic glycoengineering to decipher the regulation of glycoprotein trafficking by O-GlcNAcylation in human colon cells
12:40 – 13:00	<b>Benoit Darblade</b> Sponsor Talk Elicityl

13:00 - 14:00	<b>Lunch</b>
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<b>Session 7</b>	<b>Infection - Chair: Yannick Rossez &amp; Mark von Itzstein</b>
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14:00 - 14:30	<b>Michael Jennings</b> The essential Plasmodium falciparum malaria protein PFCyRPA targets sialic acid glycans to invade erythrocytes.
14:30 - 14:50	<b>Gael Martin</b> Understanding cell-type specific selection pressure mechanism for Enterovirus A71: The key to the development of relevant infection models and novel antiviral compounds
14:50 - 15:10	<b>Patrice Guillon</b> Insights into the human metapneumovirus glycointeractome: a novel avenue for antiviral drug design
15:10 - 15:30	<b>Sumati Bhatia</b> Leveraging sialylated architectures to combat viral infections
15:30 - 15:50	<b>Robert P. de Vries</b> Circulating highly pathogenic H5Nx influenza A viruses bind promiscuously to avian-type mucin-like O-glycans

16:00 - 18:30	<b>Social Program: Fine Art Museum of Lille, Musée de la Piscine Roubaix, Guided tour of Lille</b>
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19:30 -	<b>Meeting Banquet at L'Hermitage Gantois</b> 224 Rue Pierre Mauroy, 59000 Lille - <a href="https://www.hotelhermitagegantois.com/">https://www.hotelhermitagegantois.com/</a>
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Founded in 1462, l'Hermitage Gantois was a hospice until 1995. It has always welcomed the elderly and the sick of the Lille region, the hospice building being a

witness to this crossing of the centuries. Completely restored, it has been one of the most beautiful 5-star hotels in Lille since 2003.

<b>Friday June 07</b>	<b>Conseil Régional des Hauts-de-France, Av. du Président Hoover, Lille</b>
<b>Session 8</b>	<b>Glycomics - Chair: Yann Guerardel &amp; Kazuki Nakajima</b>
9:00 – 9:30	<b>Kay Hooi Khoo</b> Identification of 6-sulfo- sialylated Gal and LacNAc glycotopes by mass spectrometry-based sulfoglycomic analysis.
9:30 – 9:50	<b>Manfred Wuhrer</b> Low Levels of Global $\alpha$ 2,3-Sialylation of the Plasma N-Glycome Mark Fibrosis in Metabolic-Dysfunction Associated Steatotic Liver Disease.
9:50 – 10:10	<b>Noortje de Haan</b> Cellular Glycomics by Mass Spectrometry to Study Sialic Acid Presentation, Localization and Regulation.
10:10 – 10:30	<b>Jitske van Ede</b> Profiling the molecular diversity of activated nonulosonic acids in microbes.
10:30 - 11:00	<b>Coffee break</b>
<b>Session 9</b>	<b>Young Researchers - Chair: Sophie Groux-Degroote &amp; Daniel Bojar</b>
11:00 – 11:15	<b>Clément Delannoy</b> Sweet Symbiosis : Anemonefish use sialic acids to avoid giant sea anemone stinging.
11:15 – 11:30	<b>Frania J. Zúñiga-Bañuelos</b> Discovering Rare Sialylated N-glycans Holding O-Acetylation or Sulfation within the Site-Specific N-glycosylation of Human Serum IgA.
11:30 – 11:45	<b>Mengying Liu</b> Exploring H3N2 Influenza A Virus Receptor Specificity through Binding and Entry in a Cell-Based Sialoglycan Library.
11:45 – 12:00	<b>Rita Adubeiro Lourenço</b> Aberrant sialylation as cancer biomarkers and as possible therapeutic target.
12:00 – 12:15	<b>Elodie Evangélaire</b> Structural characterization of a pseudaminic-rhamnosyl disaccharide bounds to CgeA protein on the spore surface of <i>Bacillus subtilis</i> .
12:15 – 12:30	<b>Sebastian Andrei</b> Investigating the role of sialic acids in Candidatus Accumulibacter with metabolic oligosaccharide engineering.
12:30 – 12:45	<b>Sjanie Huang</b> Human N-acetylneuraminate lyase acts as gatekeeper for the right sialic acid.
12:45 – 13:00	<b>Zoé Durin</b> SPCA1 deficiency, that leads to a dramatic skin disease, affects sialylation rates by influencing the Ca <sup>2+</sup> -dependent intracellular traffic.
13:00 - 14:00	<b>Lunch</b>
14:00 - 15:00	<b>Session Poster 2</b>
<b>Session 10</b>	<b>Neurobiology - Chair: Chihiro Sato &amp; Kenji Uchimura</b>
15:00 - 15:30	<b>Herbert Hildebrandt</b> Polysialic acid-Siglec immune checkpoints in glioblastoma, myelin repair and aging.

15:30 - 15:50	<b>Kenji Uchimura</b> Analysis of 5D4-reactive sialylated and sulfated glycan elicited in microglia in Parkinson's disease mouse models
15:50 - 16:10	<b>Masaya Hane</b> ELISA-based novel analysis method for the interaction between polysialic acid and small molecule compounds
16:10 - 16:30	<b>Hauke Thiesler</b> Release of polysialylated proteins into the microenvironment of an intracranial rat glioma model
16:30 - 17:00	<b>Coffee break</b>
<b>Session 11</b>	<b>Development and immunity- Chair: Herbert Hildebrandt &amp; Ikram El Yazidi-Belkoura</b>
17:00 - 17:20	<b>Anja Münster-Kühnel</b> Role of Polysialic in Kidney Development
17:20 - 17:40	<b>Lisa Willis</b> GPR15 Is A Novel Polysialylated Protein That Is Required For T Cell Migration Towards GPR15L
17:40 - 18:00	<b>Lisa Isernhagen</b> Rapid Changes in Sialylated Milk Oligosaccharides in Holstein Cows During Early Lactation
18:00 - 18:20	<b>Takeshi Tsubata</b> Roles of interaction of CD22 (Siglec-2) with its $\alpha$ 2,6-sialylated cis-ligands in B lymphocytes.
18:20 -	<b>Closing Remark</b>