



33rd Joint Glycobiology Meeting

September 29 – October 1, 2024 | Hannover, Germany

Sunday, September 29

15:00 – 16:25 **Registration & Poster Mounting**

16:25 – 16:30 **Welcome and Opening Remarks**

Session 1 – ER-Glycosylation Chair: Sabine Strahl

16:30 – 17:00	FOR2509 Lecture	Irmgard Sinning <i>Heidelberg University, Germany</i> Towards a structural understanding of Protein O-mannosylation
17:00 – 17:15	T01	Shahidul Alam , <i>Heidelberg University, COS, Heidelberg, Germany</i> Consequences of defective POMT-based protein O-mannosylation in the context of integrin β 1
17:15 – 17:30	T02	Kaisa Pakari , <i>Heidelberg University, Germany</i> Pmm2-CDG in medaka fish: A patient-based model for investigating congenital disorders of glycosylation
17:30 – 17:45	T03	Andreas Hecker , <i>University Hospital Heidelberg, Germany</i> Role of CYP1B1 in SRD5A3-CDG: A key player for ophthalmological abnormalities?
17:45 – 18:00	T04	Ines B. Moreira , <i>Hannover Medical School, Germany</i> Neolactotetraosylceramide is a novel biomarker for bladder cancer
18:00 – 18:45	Keynote Lecture presented by FOR2509	Adnan Halim <i>University of Copenhagen, Denmark</i> Recent Advances in Protein O-Mannosylation: Structure, Function and Disease

19:00 - 21:00 **Welcome Reception | Foyer of the Lecture Hall**

Join us for an informal get-together with food & drinks



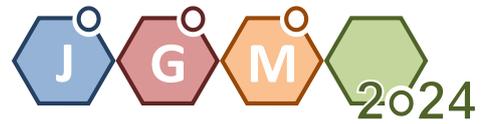
Monday, September 30

Session 2 – Chemical Glycobiology and Glycan Tools Chair: Philippe Delannoy

08:45 – 09:15	 Lecture	Ben Schumann <i>Imperial College London, Francis Crick Institute, London, United Kingdom</i> Glycosyltransferase bump-and-hole engineering to understand glycosaminoglycan biosynthesis
09:15 – 09:30	T05	Nishu Yadav , <i>Max Planck Institute of Colloids and Interfaces, Potsdam, Germany</i> Synthesis and structural analysis of carbohydrate foldamers
09:30 – 09:45	T06	Sushmaa Dangudubiyam , <i>CNRS-UGSF, University de Lille, Villeneuve d'Ascq, France</i> Development of microplate glycosyltransferase assays for enzymatic characterization and inhibitor screening
09:45 – 10:00	T07	Oren Moscovitz , <i>Max Planck Institute of Colloids and Interfaces, Potsdam, Germany</i> The development of a nanobody against <i>Streptococcus pneumoniae</i> serotype 14 for lung cancer theranostics
10:00 – 10:30		Poster Slam 1 (P1 - P12)
10:30 – 11:15		Coffee Break

Session 3 – Glycan Imaging and Analytics Chair: Falk Büttner

11:15 – 11:45	FOR2509 Lecture	Kelvin Anggara <i>Max Planck Institute for Solid State Research Stuttgart, Germany</i> Analyzing structures of glycans and glycoconjugates at single molecule level by direct imaging on surface
11:45 – 12:00	T08	Lisa Isernhagen , <i>Research Institute for Farm Animal Biology, Dummerstorf, Germany</i> Characterization of Milk Oligosaccharides in Water Buffalos During Early Lactation
12:00 – 12:15	T09	Frانيا J. Zuniga-Banuelos , <i>MPI Magdeburg, Germany</i> Expanding glycoproteomics: Including N-glycopeptides bearing glucuronidated, O-acetylated or sulfated N-glycans in the analysis of human serum proteins such as immunoglobulin A
12:15 – 12:30	T10	Agnes Hipgrave Ederveen , <i>Leiden University Medical Center, Leiden, Netherlands</i> Detailed mass spectrometric characterization of cellular glycosylation after metabolic glycoengineering using monosaccharide inhibitors
12:30 – 13:00		Poster Slam 2 (P13 – P24)
13:00 – 14:00		Lunch Break
14:00 – 16:30		Poster Session



Monday, September 30

Session 4 – Glycans in Host-Pathogen Interactions Chair: Martina Mühlenhoff

16:30 – 17:00



Lecture

Nina van Sorge

Amsterdam UMC, Medical Microbiology and Infection Prevention, Amsterdam, Netherlands

Trick or treat: bacterial glycans as virulence factors and targets for host defense

17:15 – 17:30

T11

Christian Roth, *MPI of Colloids and Interfaces, Berlin, Germany*

Structural and functional investigations into bacterial Peptidylglycosyltransferases

17:30 – 17:45

T12

Irem Demir, *Université Catholique de Louvain, Louvain-la-neuve, Belgium*

Probing molecular interactions between virus and host cell under physiologically relevant conditions

17:45 – 18:00

T13

Robert P. de Vries, *Utrecht University, Utrecht, Netherlands*

The HCoV-HKU1 N-terminal domain binds a wide range of 9-O-acetylated sialic acids presented on different glycan cores

18:15

Guided Walk to Hotel Bischofshol (1,7 km; 25 min)

19:00

MEET THE EXPERTS Networking Dinner

Restaurant Hotel Bischofshol | Bemeroder Str. 2

Tuesday, October 01

Session 5 – Glycans in Health and Disease Chair: Rita Gerardy-Schahn

09:00 – 09:30	FOR2509 Lecture	Christian Thiel <i>University Hospital Heidelberg, Germany</i> Congenital disorders of glycosylation – from patients, therapies and some curiosities
09:30 – 09:45	T14	Hauke Thiesler , <i>Hannover Medical School, Germany</i> Alleviation of synaptic and cognitive symptoms in mouse models of dementia by polysialic acid of specific polymer size
09:45 – 10:00	T15	Carolin Neu , <i>Martin-Luther-University Halle-Wittenberg, Halle, Germany</i> The Role of GNE and Sialylation in GNE Myopathy
10:00 – 10:15	T16	Lydia Bosse , <i>Hannover Medical School, Germany</i> Identification of a second catalytic center in the sialate O-acetyltransferase CASD1
10:15 – 10:30	T17	Ruonan Liang , <i>Utrecht University, Utrecht, Netherlands</i> The molecular basis of receptor binding of contemporary H3N2 viruses that reverted to bind sialylated diLacNAc repeats
10:30 – 10:45	T18	Anna Steinmetz , <i>Research Institute for Farm Animal Biology, Dummerstorf, Germany</i> The application of polysialylated bioconjugates to visualize and degrade neutrophil extracellular traps
10:45 – 11:30	Coffee Break and Poster Session	

Session 6 – Glycoimmunology Chair: Bernd Lepenies

11:30 – 12:00	 Lecture	Paula Videira <i>NOVA School of Science and Technology, Universidade Nova de Lisboa, Almada, Portugal</i> Advancing Cancer Therapeutics with Glycobiology
12:00 – 12:15	T19	Lise Hafkenscheid , <i>Leiden University Medical Center, Leiden, Netherlands</i> The glycan switch: a critical determinant in anti-citrullinated protein antibody pathogenesis
12:15 – 12:30	T20	Markus Abeln , <i>Hannover Medical School, Hannover, Germany</i> Complement activation in sialoglycan negative pregnancies
12:30– 12:45	T21	Felix Stegmann , <i>University of Veterinary Medicine Hannover, Hannover, Germany</i> The C-type lectin receptor Mincle is crucial for epigenetic reprogramming of macrophages by <i>Legionella pneumophila</i> -derived factors
12:45 – 13:00	T22	Guntram Grassl , <i>Hannover Medical School, Hannover, Germany</i> <i>Akkermansia muciniphila</i> changes intestinal glycans and improves Salmonella-induced colitis and fibrosis by inhibiting pathogen adhesion to the epithelium
13:00 – 13:15		GBM Poster Award Concluding Remarks & Announcement of the 34th JGM 2025
13:15 – 14:00	Lunch Snack & Farewell	

Posters

Sessions 1-4

P01	Florestan Bilsing	Heidelberg	Towards a mechanistic understanding of Protein O-mannosylation
P02	Daniel Sturm	Heidelberg	Exploring the role of N-Glycosylation in the stability and function of protein-O-mannosyl-transferases
P03	Encarnación Sánchez Salvador	Heidelberg	N-Glycosylation and Retinal Degeneration: Investigating Novel Interactions
P04	Lisa Schumann	Hannover	The ganglioside GM1a as a novel complement therapeutic agent
P05	Kristina Zlatina	Dummerstorf	Changes in the N-glycosylation of porcine immune globulin G during postnatal development
P06	TBA		
P07	Charlotte Rossdam	Hannover	xCGE-LIF analysis of glycosaminoglycan-derivatives from human pluripotent stem cells and derived multipotent pancreatic progenitor cells
P08	Jonas Kaynert	Hannover	Surface proteomics of C-mannosyltransferase-deficient human induced pluripotent stem cells using a cleavable aminoxy-biotin-reagent
P09	Henry Jonker	Frankfurt	NMR structural studies on thrombospondin repeats
P10	Larissa Schröter	Hannover	Thin-layer chromatography followed by virolectin staining reveals the presence of complex 9-O-acetylated gangliosides in mouse brain
P11	Tim Alexander Mast	Hannover	Transition transferases prime group 2 capsular polysaccharide biosynthesis in gram-negative bacteria
P12	Jana Führung	Hannover	Exploring and exploiting bacterial UDP-glucose pyrophosphorylases

Sessions 5-6

P13	Samira Christin Görig	Hannover	Interaction of Pasteurella multocida with bovine myeloid C-type lectin receptors
P14	Swantje Fischer	Hannover	C-type lectin receptor SIGNR3 recognizes Plasmodium-derived ligands and plays an important role for the immune response elicited during malaria
P15	Vinayaga S. Gnanapragassam	Hannover	Recognition of an intestinal helminth by the C-type lectin receptor Mincle
P16	Lina Gretenkort	Hannover	Polysialic acid impacts microglia priming in aging mice
P17	Jubilant Kwame Abledu	Berlin	Cyclic stretch increases sialylation and enhances secondary binding of SIGLEC-5/-14 and influenza hemagglutinin in the alveolar epithelial glycocalyx
P18	Ivan Gudelj	Rijeka	Branchnig increase of plasma protein N-glycans is positively associated with coronary artery disease
P19	Barbara Radovani	Rijeka	Uncovering Glycosylation Changes in Heart Failure: A Biomarker Potential
P20	Jessica Schmitz	Hannover	Altered glycocalyx sialylation for differential diagnosis of thrombotic microangiopathy (TMA) in renal allografts
P21	Anna-Carina Weiss	Hannover	Loss of 9-O-acetylated sialoglycans impairs cellular integrity of the proximal tubules and the vascular system of the kidney
P22	Maxime Grember	Lille	Structures and Roles of O-Acetylated Gangliosides in Osteosarcoma Cell Lines
P23	Jannik Schwabe	Hannover	Polysialic acid accumulates in the tumor microenvironment and in the serum of rats with experimental glioma
P24	Vanessa Wittek	Hannover	Novel Functions of Polysialic Acid in Mammalian Development
P25	Manuel Vicente	Hannover	In silico study on the relationship of sialyltransferase gene expression and hematopoietic stem cell differentiation fate