

**BENZON SYMPOSIUM No. 64**  
**GLYCOTHERAPEUTICS – Emerging Roles of Glycans in Medicine**

**Copenhagen, August 27-30, 2018**

*Organizing committee:*

Henrik Clausen, Hans H. Wandall, Steffen Thiel, James Paulson, Nico Callewaert, Hans Bräuner-Osborne  
and  
Finn Cilius Nielsen

Venue: Hotel Skt Petri, Krystalgade 22, 1172 Copenhagen, Denmark

**Poster presentations**

NAME	AFFILIATION	TITLE	Session	No.
<b>Foulquir,</b> Francois	<i>France</i>	TMEM165; a new key player in Golgi glycosylation and cellular Mn <sup>2+</sup> homeostasis	<b>ORAL &amp; Monday</b>	I-01
<b>Hurtado-Guerrero,</b> Ramon	<i>Spain</i>	The interdomain flexible linker of the polypeptide GalNAc transferases dictates their long-range glycosylation preferences	<b>ORAL &amp; Monday</b>	I-02
<b>Takeuchi,</b> Hideyuki	<i>Japan</i>	O-Glycosylation modulates the stability of epidermal growth factor-like repeats and thereby regulates Notch trafficking	<b>ORAL &amp; Monday</b>	I-03
<b>Bazan,</b> Bozena	<i>Poland</i>	The influence of the UDO-GlcNAc transporter on the O-glcNAcylation	Monday	I-04
<b>Leffler,</b> Hakon	<i>Sweden</i>	Galectins: Intra and extracellular functions and implications for drug targeting	Monday	I-05
<b>Reis,</b> Celso	<i>Portugal</i>	Cellular receptor glycosylation in Cancer-functional and therapeutic implications	Monday	I-06
<b>Duvet,</b> Sandrine	<i>France</i>	Use of Endoglycosidase H as a diagnostic tool for MAN1B1-CDG patients	Monday	I-07
<b>Willems,</b> Anke	<i>The Netherlands</i>	Discovering unknown pathways in sialic acid biosynthesis	Monday	I-08
<b>Cavdarli,</b> Sumeyye	<i>France</i>	Identification of 9-O-acetyl-N-acetylneuraminic acid (Neu6,9Ac2) in terminal position of GD2 in breast cancer cell lines	Monday	I-09
<b>Maszcak-Seneczko,</b> Dorota	<i>Poland</i>	A novel interplay between UDP-galactose transporter and core 1 beta1,3-galactosyltransferase	Monday	I-10
<b>Blanas,</b> Athanasios	<i>The Netherlands</i>	Successful gene activation of fucosyltransferase (FUT) genes using the CRISPR-dCas9-VPR system	Monday	I-11
<b>Malmström,</b> Anders	<i>Sweden</i>	Crystal structure of dermatan sulfate epimerase 1 and its interaction with dermatan 4-sulfotransferase 1	Monday	I-12
<b>Olczak,</b> Teresa	<i>Poland</i>	Novel UDP-galactose transporter mutation causes the protein loss-of-function	Monday	I-13

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<b>Fiebig,</b> Timm	<i>Germany</i>	Efficient Solid-phase synthesis of meningococcal capsular oligosaccharides enables simple and fast chemoenzymatic vaccine production	Monday	I-14
<b>Rimmer,</b> Natalie	<i>Switzerland</i>	Elucidating endogenous E-cadherin glycosylation in cancer cells using CRISPR-Cas9-induced homology directed repair and mass spectrometry	Monday	I-15
<b>Gomes,</b> Catarina	<i>Portugal</i>	Carsinoembryonic antigen carries $\alpha$ 2-3 linked sialic acid on type II chains and is implicated in the metastatic potential of gastric cancer cells	Monday	I-16
<b>Denzel,</b> Martin	<i>Germany</i>	Elevating cellular UDP-GlcNAc through activation of the hexosamine pathway prevents toxic protein aggregation and extends lifespan	Monday	I-17
<b>Kellokumpu,</b> Sakari	<i>Finland</i>	SLC35A4, a Putative Nucleotide Sugar Transporter, Interacts Simultaneously with Other Nucleotide Sugar Transporters and Medial-Golgi N-Acetylglucosaminyltransferases	Monday	I-18
<b>Stentoft,</b> Catharina	<i>Denmark</i>	A comprehensive strategy for generating Cancer-specific monoclonal antibodies to aberrant O-glycoproteins	Monday	I-19
<b>Lira-Navarette,</b> Erandi	<i>Denmark</i>	Structural analysis of a GalNAc-T2 mutant reveals an induced-fit catalytic mechanism for GalNAc-Ts	Monday	I-20
<b>Larsen,</b> Ida Signe Bohse	<i>Denmark</i>	Discovery of an O-mannosylation pathway selectively serving cadherins and protocadherins	Monday	I-21
<b>Schjoldager,</b> Katrine	<i>Denmark</i>	Site-specific O-glycosylation of members of the low-densite lipoprotein receptor superfamily enhances ligand interactions	Monday	I-22
<b>Hansen,</b> Lasse Holst	<i>Denmark</i>	Endogenous O-glycosylated atrial natriuretic peptide with preserved bioactivity	Monday	I-23
<b>Siukstaite,</b> Lina	<i>Denmark</i>	Discovery of an O-mannosylation pathway selectively serving cadherins and protocadherins	Monday	I-24

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<b>Sun,</b> Lingbo	<i>Denmark</i>	Cell Display of homogenous Neu5Ac/Neu5Gc in CHO cells and an alternatively pathway exist in sialic acid synthesis	Monday	I-25
<b>Nielsen,</b> Mathias Ingemann	<i>Denmark</i>	Defining Galectin Glycan-specificity in a Natural Context: Galectin Binding to Cells and Glycoproteins with Genetically Manipulated Glycosylation	Monday	I-26
<b>Madsen,</b> Thomas Daugbjerg	<i>Denmark</i>	O-Glycosylated Neuropeptides	Monday	I-27
<b>Zetterberg,</b> Fredrik	<i>Denmark</i>	The first class of orally available mono-saccharide galectin-3 inhibitors for treatment of fibrosis (NASH) and cancer	<b>ORAL &amp;</b> Tuesday	II-01
<b>Büll,</b> Christian	<i>The Netherlands</i>	Reprogramming sialic acid-Siglec interactions to control the immune response	<b>ORAL &amp;</b> Tuesday	II-02
<b>Thaysen-Andersen,</b> Morten	<i>Australia</i>	Paucimannosylation: Overlooked human glycoepitopes in inflammation, infection and cancer	<b>ORAL &amp;</b> Tuesday	II-03
<b>Clausen,</b> Thomas Mandel	<i>Denmark</i>	Targeting ofCS for cancer therapy and diagnosis	<b>ORAL &amp;</b> Tuesday	II-04
<b>Mathiesen,</b> Caroline Kjærulff	<i>Denmark</i>	Genetically engineered cell factories produce glycoengineered vaccines that target antigen presenting cells and alter immunity	<b>ORAL &amp;</b> Tuesday	II-05
<b>Cervin,</b> Jakob	<i>Sweden</i>	GM1 Ganglioside-independent intoxication by Cholera toxin	Tuesday	II-06
<b>Sampathkumar,</b> Srinivasa-Gopalan	<i>India</i>	Carbohydrate-neuroactive hybrid strategy for non-invasive modulation of brain sialoglycoconjugates in animals	Tuesday	II-07
<b>Fuchsberger,</b> Felix	<i>Germany</i>	Targeting the human and murine C-type lectin receptor Langerin	Tuesday	II-08
<b>Groux-Degroote,</b> Sophie	<i>France</i>	Unveiling the Glycolipid “Glycosignature” of Human Mesenchymal Stem Cells Derived from Adipose Tissue and Bone Marrow Sources	Tuesday	II-09

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<b>Göritzer,</b> Kathrin	<i>Austria</i>	Elucidating structure-function relationships of immunoglobulin A with defined glycosylation	Tuesday	II-10
<b>Shanina,</b> Elena	<i>Germany</i>	Siglec-9-Mediated Modulation of Immune Responses in Neutrophils in Neutrophils and Monocytes	Tuesday	II-11
<b>Pelaseyed,</b> Thafer	<i>Sweden</i>	Transmembrane mucin Muc17 is regulated by gut microbiome composition and recognition	Tuesday	II-12
<b>Westergren-Thorsson,</b> Gunilla	<i>Sweden</i>	Extracellular matrix in lung tissue and scaffolds from patients with idiopathic lung fibrosis-affecting outcome of disease?	Tuesday	II-13
<b>Jensen,</b> J. Magnus Bernth	<i>Denmark</i>	Human antibodies against Gal( $\alpha$ 1-3)Gal targets common pathogens	Tuesday	II-14
<b>Ehrencrona,</b> Erik	<i>Sweden</i>	The Role of the Mucin-Like Glycoprotein FCGBP in Mucus	Tuesday	II-15
<b>Sahasrabudhe,</b> Neha	<i>The Netherlands</i>	Chorioallantoic membrane model to study glycan dependent tumor growth and differentiation	Tuesday	II-16
<b>Santegoets,</b> Kim	<i>The Netherlands</i>	Expression profiling of immune inhibitory Siglecs and their ligands in patients with glioma	Tuesday	II-17
<b>Johannesen,</b> Hedda	<i>Norway</i>	14F7, an antibody that specifically recognise the tumor-specific ganglioside NeuGc GM3	Tuesday	II-18
<b>Joshi,</b> Hiren	<i>Denmark</i>	Glycosyl transferase genes that cause monogenic congenital disorders of glycosylation are distinct from glycosyltransferase genes associated with complex diseases	Tuesday	II-19
<b>Bagdonaite,</b> Ieva	<i>Denmark</i>	Isoform-Specific Mucin Type O-Glycosylation Maintains Epithelial Homeostasis	Tuesday	II-20
<b>Pedersen,</b> Johannes	<i>Denmark</i>	Targeted screen for cancer associated auto-antibodies. Case control study of colorectal cancer in UK Collaborative Trial of Ovarian Cancer	Tuesday	II-21

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<b>Hintze,</b> John	<i>Denmark</i>	Exploring dose-dependent GalNAc-T functions	Tuesday	II-22
<b>Vakhrushev,</b> Sergey	<i>Denmark</i>	Ultra-sensitive quantitative O-glycoproteomics by data independent acquisition (DIA) using an in silico developed O-glycan library	Tuesday	II-23
<b>Rømer,</b> Troels Boldt	<i>Denmark</i>	Truncated mucin type O-glycans in Epithelial Cancers: central drivers or blind passengers?	Tuesday	II-24
<b>Ye,</b> Zilu	<i>Denmark</i>	GalNAc-Type O-glycoproteomics analysis and discovery of human sperm	Tuesday	II-25
<b>Huang,</b> Chengcheng	<i>Japan</i>	Studies on the serum sialyl oligosaccharides	<b>ORAL &amp;</b> Wednesday	III-01
<b>Miller,</b> Rebeca	<i>Denmark</i>	Ion mobility mass spectrometry of heparan sulfate	<b>ORAL &amp;</b> Wednesday	III-02
<b>Jacob,</b> Francis	<i>Switzerland</i>	Glycosphingolipids are vital for reversible epithelial-to-mesenchymal transition in intermediate ovarian cancer cells	<b>ORAL &amp;</b> Wednesday	III-03
<b>Mally,</b> Manuela	<i>Switzerland</i>	A novel glycoengineering platform for better therapeutics	<b>ORAL &amp;</b> Wednesday	III-04
<b>Bailly,</b> Benjamin	<i>Australia</i>	Discovery of heparan sulfate mimetic fragments as inhibitors of enterovirus 71 infection	<b>ORAL &amp;</b> Wednesday	III-05
<b>Turnbull,</b> Jeremy	<i>UK</i>	Next Generation Heparins: Targeting Proteoglycan Functions for Therapeutic Benefit	<b>ORAL &amp;</b> Wednesday	III-06
<b>Tian,</b> Weihua	<i>Denmark</i>	The Glycosylation Design Space for Recombinant Lysosomal Replacement Enzymes in CHO Cells	<b>ORAL &amp;</b> Wednesday	III-07
<b>Narimatsu,</b> Yoshiki	<i>Denmark</i>	A validated gRNA library for CRISPR/Cas9 targeting of the human glycosyltransferase genome	<b>ORAL &amp;</b> Wednesday	III-08
<b>Montero Morales,</b> Laura	<i>Austria</i>	Glycosylation and Funcional Activities of IgE Antibodies	Wednesday	III-09

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<b>Contessotto,</b> Paolo	<i>Ireland</i>	Post-ischemic myocardial remodelling and its modulation by an Elastin-Like Recombinamers-based hydrogel	Wednesday	III-10
<b>Samuelsson,</b> Ebba	<i>Sweden</i>	Carbohydrate epitopes of the recombinant varicella zoster virus glycoprotein E implications for vaccine efficacy	Wednesday	III-11
<b>Caval,</b> Tomislav	<i>The Netherlands</i>	Direct quality control of glycolengineered Erythropoitin variants	Wednesday	III-12
<b>Spliid,</b> Charlotte	<i>Denmark</i>	Characterization of Oncofetal Chondroitin Sulfate	Wednesday	III-13
<b>Nordgren,</b> Maria	<i>Sweden</i>	Novel techniques for O-glycoprotein enrichment and O-glycan site determination	Wednesday	III-14
<b>Persson,</b> Andrea	<i>Sweden</i>	Structural Characterization of Cytotoxic Xyloside-primed Glycosaminoglycans Using LC-MS/MS	Wednesday	III-15
<b>Rimkute,</b> Inga	<i>Sweden</i>	The glycobiology of human intestinal enteroids is opening doors for the precision medicine of gastrointestinal infections	Wednesday	III-16
<b>Frank,</b> Martin	<i>Sweden</i>	Understanding molecular dynamics is fundamental for the development of better carbohydrate-based drugs	Wednesday	III-17
<b>Nilsson,</b> Jonas	<i>Sweden</i>	Effective assignment of sialic acid isomers in LC-MS/MS based glycoproteomics	Wednesday	III-18
<b>Nikpour,</b> Mahnaz	<i>Sweden</i>	Does the Glycosaminoglycan chain of Chromogranin A play in the packing, enzymatic processing, and release of peptide hormones from endocrine cells?	Wednesday	III-19
<b>Bydlinski,</b> Nina	<i>Austria</i>	Enhancement by reduction- pushing N-glycosylation by cleaning up the Golgi	Wednesday	III-20
<b>Kristensen,</b> Claus	<i>Denmark</i>	Cell Based GlycoDisplay	Wednesday	III-21

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<b>Pallesen,</b> Emil	<i>Denmark</i>	Genetically Engineered Tissue to Screen for Glycan Function in Tissue Formation	Wednesday	III-22
<b>van Coillie,</b> Julie	<i>Denmark</i>	Molecular imprinted probes for detection of distinct human sialylation and aberrant cancer-specific O-glycans	Wednesday	III-23
<b>Schulz,</b> Morten Alder	<i>Denmark</i>	Glycoengineering design options for IgG1 in CHO cells using precise gene editing	Wednesday	III-24
<b>Nason,</b> Rebecca	<i>Denmark</i>	The study of molecular imprinted polymers for detection of aberrant cancer-specific O-glycans	Wednesday	III-25
<b>Karlsson,</b> Richard	<i>Denmark</i>	Molecularly Imprinted Polymers towards a cancer-associated form of chondroitin sulfate	Wednesday	III-26
<b>Chen,</b> Yen-Hsi	<i>Denmark</i>	GAGOme - A Cell-Based Method for Display of Glycosaminoglycans	Wednesday	III-27
<b>Petersen,</b> Bent L.	<i>Denmark</i>	Engineering Plant N-linked Core Glycosylation in Mammalian Cells	Wednesday	III-28