Glycoscience Japan - The Netherlands
Joint Seminar 2016

Glycobiology in Health and Disease
April 19-22, 2016

Leiden University Medical Center, Leiden, The Netherlands

Hosted by: Cornelis Hokke, Manfred Wuhrer, Hans Vliegenthart

Scientific organisation
Netherlands: Cornelis Hokke & Manfred Wuhrer.
Advisor: Hans Vliegenthart
Japan: Ken Kitajima & Hideharu Ishida.
Advisors: Naoyuki Taniguchi & Toshisuke Kawasaki

Local organisation:
Emanuela Lonardi, Guinevere Kammeijer,
Angela van Diepen

NWO-JSPS 2016 | Scientific program and abstracts
Detailed Scientific Program
Wednesday April 20 2016; lecture hall 5

9:00-9:30  
**Arrival and Registration**

9:30-9:45  
**Welcome address by Hans Vliegenthart**

9:45-10:30  
**Plenary Lecture - Koichi Furukawa**  
Comprehensive approaches to understand regulatory functions of cancer-associated glycosphingolipids.

10:30-11:00  
*Tea / coffee break at the Boerhaaveplein*

11:00-12:30  
**Session 1 - Disorders and Development I**

**Ken Kitajima**  
Why does sialic acid deficiency cause the embryonic lethality in medaka fish, Oryzias latipes?

**Dirk Lefeber**  
Metabolic regulation of protein glycosylation - “identification of a novel nucleotide-sugar in human”

**Hiroshi Kitagawa**  
Chondroitin sulfate in development and differentiation

**Chihiro Sato**  
Effects of SNPs and genetic variations in the ST8SIA2 gene from the psychiatric disorder patients on the expression and functions of polysialic acid

12:30-13:30  
**Lunch at the Boerhaaveplein**
13:30-15:00  
**Session 2 – Immunology I**

Moniek van Scherpenzeel  Clinical Glycomics to unravel novel Congenital Disorders of Glycosylation

Fabrizio Chiodo  When the Chemical Design Meets Immunology: Carbohydrates as Adjuvants, Carbohydrates on Nanos

Hiromu Takematsu  Lymphocyte activation-dependent regulation of glycan expression and recognition from Siglec-family lectins

Hiroto Kawashima  Role of sulfated glycans in lymphocyte homing to nasal-associated lymphoid tissues and allergic immune responses

15:00-15:30  
**Tea / coffee break at the Boerhaaveplein**

15:30-17:00  
**Session 3 – Immunology II**

Juan Garcia Vallejo  Glycan-Lectin interactions in the regulation of immune homeostasis

Joke den Haan  Siglec-1+ macrophages stimulate adaptive immune responses via capture and transfer of antigen

Robert de Vries  H7N9 and H6N1 influenza A virus hemagglutinins engineered to bind human type receptors reveal a novel layer of specificity beyond the 2-6 linkage of sialic acid

Uli Scherer  Autoantibody glycosylation: take the bitter with the sweet!

17:00  
**Announcements**
Thursday April 21 2016; lecture hall 5

9:00-10:30

**Session 4 - Disorders and Development II**

Tadashi Suzuki  Toward curing an NGLY1-deficiency

Hiroshi Manya  Tandem Rebitol-phosphate structure is required for O-mannosyl glycan biosynthesis and its defect in muscular dystrophy

Hans Aerts  Glucosylceramide: more than structural lipid

Koichi Honke  A sulfated glycolipid, seminolipid and basigin are required for the functional expression of the lactate transporter in spermatocytes

10:30-11:00

**Tea / coffee break at the Boerhaaveplein**

11:00-12:30

**Session 5 - Cancer**

Katsunori Tanaka  Theranostic glycoconjugates

Yvette van Kooyk  Cancer vaccines facilitating cross-presentation for the induction of tumor-immunity overcoming tumor induced suppression

Stephanie Holst  Exploiting mass spectrometry imaging of N-glycans for cancer glycomics

Matthew Lauber  Comprehensive Characterization of the N and O-Linked Glycosylation of a Recombinant Human EPO using an Optimized HILIC Stationary Phase

12:30-13:30

**Lunch / poster session at the Boerhaaveplein**

Sponsored by Waters Corporation, Milford, MA
15:30-17:00

**Session 6 - Cancer/ Development and Regulation**

**Sandra van Vliet**  
Tumor-associated glycans trigger the C-type lectin MGL on dendritic cells to dampen antitumor immunity

**Christian Büll**  
Exploring sialic acid blockade for cancer therapy

**Toshisuke Kawasaki**  
Glycan specific marker antibodies for human iPS/ES cells: Binding specificity and biological significance

**Naoyuki Taniguchi**  
Glyco-redox in Alzheimer's disease and COPD: old saké in a new bottle

17:00

**Announcements**

18:00-23:00

**Conference dinner at the Oranjerie, Hortus Botanicus**
Friday April 22 2016; Burumazaal, building 3

9:00 - 10:30
Session 7 - Host-Pathogen Interactions
Yukari Fujimoto  Immunomodulatory inositol phospholipids; Chemical synthesis and biological functions
Nina van Sorge  The Group A Streptococcus cell wall carbohydrate: a virulence factor and universal vaccine candidate
Sho Yamasaki  Recognition of mycobacterial glycolipids through C-type lectin receptors
Cornelis Hokke  Dissecting anti-glycan antibodies and immunity in natural and experimental schistosome infections

10:30-11:00
Tea / coffee break at the foyer, building 3

11:00 – 12:30
Session 8 - Host-Pathogen Interactions / Biochemistry & Chemical Biology
Irma van Die  The Mannose Receptor in Trichuris suis-induced immune modulation
Hideharu Ishida  Design and Synthesis of Novel Sialosides as Potent Inhibitors for Siglec-2
Sander van Leeuwen  Regional differences in hMOS composition within Vietnam
Manfred Wuhrer  Glycosylation changes in auto- and alloimmune diseases
12:30-13:30
Lunch at the foyer, building 3

13:30-15:00
Session 9 - Biochemistry & Chemical biology

Geert-Jan Boons  An Integrated Approach to Uncover Ligands for Heparan Sulfate Binding Proteins

Hiromune Ando  Development of novel ganglioside probes to explore glycan-protein architecture formed in the cell membrane

Arjen Schots  Humanising and helminthising glycans in plants: new prospects for production and application of biopharmaceutical proteins

Jeroen Codée  Teichoic acids: synthesis and applications

15:00-16:30
Closing drinks at the foyer, building 3