

Monday, Aug. 2 Convention Hall

- 09:00 **Opening Ceremony**
- 09:30 **Special Lecture Molecular Catalysis for Green Chemistry**
R. Nozori
Chair: T. Ogawa, RIKEN
- 10:30 **Memorial Address Roy L. Whistler**
J. N. BeMiller
Chair: B. Paulsen, University of Oslo
- 11:00 **Whistler Award Lecture NMR, Carbohydrates, and Molecular Recognition**
J. Jiménez-Barbero
Chair: B. Paulsen, University of Oslo

Convention Hall A

- 14:15 **Invited-1 Sugar Processing and Recognition in Protein Quality Control**
M. Molinari
Chair: Y. Ito, RIKEN
- Chair(s): K. Furukawa, Nagaoka University of Technology
H. Freeze, Burnham Institute for Medical Research
- 14:45 **C-02-001 Cytoplasmic PNGase ? Not Just a Deglycosylating Enzyme**
T. Suzuki
- 15:00 **C-02-002 Pathophysiological Significance of Ganglioside GM3**
J. Inokuchi
- 15:15 **C-02-003 Crosstalk Between O-GlcNAcylation and Phosphorylation is Extensive: A Paradigm Shift for Cellular Signaling?**
G. W. Hart
- 15:30 **C-02-004 Functional Role of O-GlcNAc Modification on E-cadherin Repressor Snail in Epithelial Mesenchymal Transition**
J. W. Cho, S. Y. Park, J. Roth, J. I. Yook, H. S. Kim

- 16:15 **Invited-5 Polysialic Acid Specific Endosialidases: Insights Into Structure-Function-Relationships**
R. Gerardy-Schahn
Chair: K. Furukawa, Nagoya University
- Chair(s): T. Miyagi, Miyagi Cancer Center Research Institute
K. Moreman, University of Georgia
- 16:45 **C-O2-005 α 2,6-Sialic Acid on Platelet Endothelial Cell Adhesion Molecule (PECAM) Regulates Its Homophilic Interactions and Downstream Antiapoptotic Signaling**
S. Kitazume, R. Imamaki, K. Ogawa, Y. Komi, S. Futakawa, S. Kojima, Y. Hashimoto, J. D. Marth, J. C. Paulson, N. Taniguchi
- 17:00 **C-O2-006 Bisecting GlcNAc Residues on Laminin-332 Downregulates Integrin-mediated Cell Motility and Intracellular Signaling**
J. Gu, Y. Kariya
- 17:15 **C-O2-007 Glycosylation Changes in Rat Vitronectin, Especially Decreased Sialylation Regulate the Matrix Restructuring During Liver Regeneration**
H. Ogawa, Y. Miyamoto, N. Kawasaki, N. Hashii, S. Itoh, M. Yokoyama, M. Murase, K. Date, C. Sato, K. Kitajima, K. Sano
- 17:30 **C-O2-008 Functional Analysis of Sulfated Glycans in the Differentiation of embryonic stem cells**
S. Nishihara, N. Sasaki, T. Hirano, T. Ichimiya, K. Hirano, H. Toyoda, Y. Suda
- 17:45 **C-O2-009 The Transition Along Early Developmental Stages in Arabidopsis Requires the Activity of Putative Mannan Synthases CSLD2, CSLD3 and CSLD5**
Y. Verhertbruggen

Convention Hall B

- 14:15 **Invited-2 Engineering and Evolution of Enzymes for Glycosyl Transfer**
S. G. Withers
Chair: A. Imberty, CERMAV-CNRS
- Chair(s): R. Yamasaki, Tottori University
S. Perez, European Synchrotron Radiation Facility

- 14:45 **B-O2-001** **New Structures of *Salmonella Enterica* O-antigens and Their Relationships with O-antigens of *Escherichia Coli***
Y. A. Knirel, A. V. Perepelov, S. N. Senchenkova, B. Liu, L. Feng, L. Wang
- 15:00 **B-O2-002** **Magnetic Beads-Assisted Mild Enrichment Procedure for Weak Binding Lectins**
K. Totani, H. Miyazawa, Y. Ito
- 15:15 **B-O2-003** **Characterization of a Glycosyltransferase Involved in Glycolipid Biosynthesis in *Mycoplasma Genitalium***
A. Planas, E. Andres, N. Martinez
- 15:30 **B-O2-004** **Phosphatidyl- β -D-glucoside and its Derivatives: From Physical Properties to Biosyntheses and Biological Activities**
P. Greimel, Y. Nagatsuka, M. Murate, T. Hayakawa, T. Kobayashi, Y. Ito, Y. Hirabayashi
- 16:15 **Invited-6** **Development of Glycosidase Inhibitors for Drug Discovery**
C.-H. Lin
 Chair: M. Palcic, Carlsberg Laboratory
- Chair(s): K. Kitajima, Nagoya University, BBC
 M. Aebi, ETH-Hönggerberg
- 16:45 **B-O2-005** **The GT2 Enzyme NodC as a Model for Studying Chitin Synthase**
H. C. Dorfmueller
- 17:00 **B-O2-006** **Identification and Characterization of a Two-Component System for the O-Acetylation of the Essential Bacterial Cell Wall Heteropolymer Peptidoglycan**
A. J. Clarke, P. J. Moynihan, J. M. Pfeffer
- 17:15 **B-O2-007** **Vibrational Circular Dichroism (VCD) Studies of Carbohydrates and Glycoconjugates**
K. Monde
- 17:30 **B-O2-008** **Core Oligosaccharide of *Plesiomonas Shigelloides* O17 (PCM 2231) Lipopolysaccharide - Structural and Serological Analysis**
A. Maciejewska, J. Lukasiewicz, T. Niedziela, W. Jachymek, C. Lugowski

- 17:45 **B-O2-009 Engineering of *Escherichia Coli* Cells for the Heterologous Production of Fucosylated Oligosaccharides**
C. Albermann, L. Khan

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- 14:15 **Invited-3 Devising New Leaving Groups of Glycosyl Donors and Directing Effects of Remote Electron-Withdrawing Protecting Groups of Glycosyl Donors**

K. S. Kim

Chair: M. Kiso, Gifu University

Chair(s): M. Sodeoka, RIKEN
C. Vogel, University Rostock

- 14:45 **A-O2-001 An Efficient Synthesis of Glycosyl Dibenzyl Phosphates by Glycosylation of Dibenzyl Phosphate Polymer with Glycosyl Halides**

L. Kononov, L. Nazarova, A. Shpirt

- 15:00 **A-O2-002 Highly Efficient Synthesis of Nucleoside Mono- and Diphosphate-Saccharides**

C. Meier

- 15:15 **A-O2-003 Are Oxacarbenium Ions Intermediates in Glycosylation Reactions with O-2 Non-participating Groups?**

D. M. Whitfield, R. Kumar

- 15:30 **A-O2-004 Endocleavage Promotion in Pyranosides with Locked Conformation**

H. Satoh, H. P. Luethi, J. Hutter, T. Laino, Y. Ito, S. Manabe

- 16:15 **Invited-7 Modular Synthesis of Heparan Sulfate Oligosaccharides for Array Development**

G.-J. Boons

Chair: J. C. Paulson, The Scripps Research Institute

Chair(s): D. B. Werz, Institute for Organic and Biomolecular Chemistry
A. P. Rauter, Universidade d Lisboa

- 16:45 **A-O2-005 New Glycopyranosylidene-spiro-heterocycles: Synthesis, Transformations, and Evaluation as Glycogen Phosphorylase Inhibitors**
L. Somsak, K. Czifrak, S. Deak, A. Pahi, E. D. Chrisina, K. M. Alexacou, N. G. Oikonomakos
- 17:00 **A-O2-006 The Development of Selective Inhibitors for ER α -mannosidase I by Combinatorial Modification of Kifunensine**
J. L. Cardot
- 17:15 **A-O2-007 Fluorinated Glycoheptuloses Towards *in vivo* Tracking of Beta Cells in Diabetes Diagnostics**
D. Waschke
- 17:30 **A-O2-008 A Highly Efficient *pseudo* Enantiomeric Olefin Phosphinite Ligand Pair Derived from D-Glucose and D-Galactose**
H. Grugel, T. Minuth, M. M. Boysen
- 17:45 **A-O2-009 Industrialization of Multi Steps Oligosaccharides Synthesis**
P. Trouilleux

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- 14:15 **Invited-4 From Glycomics to Glycoproteomics**
N. H. Packer
Chair: A. Dell, Imperial College London

Chair(s): P. M. Nieto, Instituto de Investigaciones Quimicas
K. Kato, IMS

- 14:45 **D-O2-001 Novel Simulation Method for Deducing MALDI MSn Spectrum from Given Carbohydrate Structures**
H. Takaba, Y. Sato, X. L. Wang, R. Miura, A. Suzuki, H. Tsuboi, A. Endou, J. Amano, A. Miyamoto
- 15:00 **D-O2-002 Stabilization of the Polyproline II Helix by Hydroxyproline Glycosylation**
F. Schweizer

- 15:15 **D-O2-003 Structural Rationale for Binding of β -D-Glucosides and β -D-Mannosides by Rice and Barley β -D-Glucosidases with Different Substrate Specificities**
M. Hrmova, T. Kuntothom, M. Raab, S. Fort, S. Penthaisong, L. Calle, J. Canada, I. Tvaroska, J. Jimenez-Barbero, J. Ketudat Cairns, M. Hrmova
- 15:30 **D-O2-004 NMR Structural Studies of the Interaction Between DC-SIGN and Oligosaccharides.**
P. M. Nieto, C. Guzzi, J. Angulo, R. Riberio, J. J. Reina, M. Andreini, M. Thepaut, F. Fieschi, A. Bernardi, J. Rojo
- 16:15 **Invited-8 From Oligosaccharides to Biologics: The Synthesis of Defined N-Glycoproteins**
C. Unverzagt
 Chair: I. Hamachi, Kyoto University
- Chair(s): V. Wittmann, University of Konstanz
 S. Williams, University of Melbourne
- 16:45 **A-O2-010 Synthesis of Glycoprotein by Segment Condensation Methods**
H. Hojo
- 17:00 **A-O2-011 The chemical synthesis of glycosylated co-stimulatory signal accepting protein ALIM/ICOS**
T. Murase
- 17:15 **A-O2-012 Synthesis of Glycans as Donor Substrates for Bacterial Protein Glycosylations**
Y. J. Lee, A. Ishiwata, A. Kubota, T. Watanabe, D. Kohda, Y. Ito
- 17:30 **A-O2-013 Synthesis of Modified 3-deoxy-D-manno-octulosonic Acid (KDO) Derivatives as Probes for KDO Transferase Substrate Specificity**
R. L. Winzar, J. C. Wilson, M. J. Kiefel
- 17:45 **A-O2-014 Construction of N-glycan Microarrays Using Modular Synthesis and On-Chip Enzymatic Glycosylation.**
S. Serna

Tuesday, Aug. 3 Convention Hall

- 09:00 **Plenary-1 Sugars & Proteins**
B. G. Davis
Chair: S. Oscarson, University College Dublin
- 09:45 **Plenary-2 Synthetic Antitumor Vaccines Based on Glycopeptide Antigens**
H. Kunz
Chair: M. Martín-Lomas, CIC biomaGUNE
- 11:00 **Plenary-3 Pathogen Recognition by Innate Immunity**
S. Akira
Chair: N. Taniguchi, Osaka University, RIKEN Advanced Science Institute

Convention Hall A

- 14:15 **Invited-9 New Glycosylation Methods for the Synthesis of Complex Glycoconjugates**
B. Yu
Chair: G.-J. Boons, The University of Georgia
- Chair(s): S. Manabe, RIKEN
D. Whitfield, National Research Council Institute for Biological Sciences
- 14:45 **A-03-015 New Approaches to Expedient Oligosaccharide Synthesis**
A. V. Demchenko, S. Kaeothip, S. J. Hasty, S. C. Ranade, J. P. Yasomanee, S. S. Nigudkar, P. Pornsuriyasak, K. J. Stine
- 15:00 **A-03-016 The Nature of the O-2/O-5 Cooperative Effect and Its Role in Chemical Glycosylation**
L. K. Mydock, H. D. Premathilake, T. Kamkhachorn, A. V. Demchenko
- 15:15 **A-03-017 Oxathiane Sulfoxide Donors in the Stereoselective Synthesis of 1,2-*cis*- α -Glycosides**
M. A. Fascione, B. Turnbull
- 15:30 **A-03-018 Electrochemical Activation of Thioglycosides Using Bu_4NOTf as an Electrolyte for Analysis of Glycosylation Intermediates and Oligosaccharide Synthesis**
T. Nokami, Y. Nozaki, Y. Saigusa, S. Manabe, Y. Ito, J. Yoshida

- 16:15 **Invited-13 Synthesis and Biological Activity of Kotalanol, a Naturally-Occurring Glucosidase Inhibitor, and Its Analogues**
B. Mario Pinto
 Chair: H. Kunz, Universität Mainz
- Chair(s): C. Unverzagt, University of Bayreuth
 S.-C. Hung, Academia Sinica
- 16:45 **A-O3-019 Synthesis of Lipopolysaccharide Structures from *Nisseria meningitidis***
S. Oscarson, J. D. Olsson, J. Bouissiere, H. Horan, K. Daragics
- 17:00 **A-O3-020 Synthesis of Full Phosphorylated and Lipidated Glycosylphosphatidylinositol (GPI) Glycans and GPI-Anchored Proteins**
D. Varon Silva
- 17:15 **A-O3-021 Synthesis of Di- and Triacylated Phosphatidylinositol Dimannosides from *Mycobacterium Tuberculosis***
P. S. Patil, S. C. Hung
- 17:30 **A-O3-022 A First total Synthesis of Ganglioside GalNAc-GD1a by Employing Intramolecular Glycosylation as a Key Step**
H. Ando, K. Fujikawa, M. Konishi, T. Fuse, A. Imamura, H. Ishida, M. Kiso
- 17:45 **A-O3-023 Synthesis of Biologically Important Oligosaccharides Containing $\alpha(2,8)$ Oligosialic Acids**
H. Tanaka

Convention Hall B

- 14:15 **Invited-10 Carbohydrate-active Enzyme Systems in Bacterial Genomes: Degradation Potential Reflects Lifestyle**
P. M. Coutinho
 Chair: J. Jiménez-Barbero, CSIC
- Chair(s): D. Kohda, Kyushu University
 A. Wu, Chang-Gung Univ.
- 14:45 **D-O3-005 N-glycosylation Mechanism and the Functional Conservation**
Y. Yamaguchi, M. Kato, A. Ikeda

- 15:00 **D-03-006 Comparative Structural Biology of Oligosaccharyltransferase: an Enzyme that Catalyzes the Glycosylation of the Asn-X-Ser/Thr sequon**
D. Kohda, M. Igura, N. Maita, J. Nyirenda, S. Matsumoto
- 15:15 **D-03-007 Galactolipid Biosynthesis : a Structure-function Study of MGDG Synthase 1 from Arabidopsis**
C. Breton, M. Audry, E. Dubots, E. Marechal, M. A. Block
- 15:30 **D-03-008 Interaction of Pseudomonas Aeruginosa Lectin I with Human Glycoconjugates. Crystal Structure, Energy Calculations, Design of Glycomimetics and in Vivo Assays**
A. Imberty, A. Nurisso, B. Blanchard, S. Cecioni, Y. Chabre, D. Giguere
- 16:15 **Invited-14 Structural Enzymology of the O-GlcNAc Modification**
G. J Davies
 Chair: S. G Withers, UBC
- Chair(s): B. Nidetzky, Graz University of Technology
 A. Molinaro, University of Naples Federico II
- 16:45 **E-03-001 “Clickable” pH-Sensitive Dextran Nanoparticles: Preparation and Application as Vaccine Carriers**
L. Cui
- 17:00 **E-03-002 Efficient Microbial Synthesis of Sialyl-lewisx and Sialyl-lewisx Pentasaccharide by Metabolically Engineered *Escherichia Coli***
E. Samain, C. Gebus, M. Randriantsoa, S. Drouillard
- 17:15 **E-03-003 Synthesis of novel oligodiaminosaccharides which bind to A-type nucleic acid duplexes**
R. Iwata
- 17:30 **E-03-004 Periodate Oxidised Alginates: Macromolecular Compaction, Carbonyl Detection, and Degradation**
B. E. Christensen, H. B. Tomren, A. Potthast, K. A. Kristiansen
- 17:45 **E-03-005 Unique Oligosaccharides Synthesized by a Novel Glucosyltransferase (GTFB) Enzyme from Lactobacillus reuteri 121**
J. M. Dobruchowska, S. Kralj, R. J. Leemhuis, G. J. Gerwig, J. P. Kamerling, L. Dijkhuizen

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- 14:15 **Invited-11 NMR Characterization of Conformations, Dynamics, and Interactions of Glycoconjugates**
K. Kato
Chair: A. S. Serianni, University of Notre Dame
- Chair(s): C.-H.Lin, Academia Sinica
K. Honke, Kochi University Medical School
- 14:45 **B-O3-010 SILAC-based Site Occupancy Analysis of *N*-glycoproteins: A Functional Study of Oligosaccharyltransferase Activity in *Saccharomyces Cerevisiae***
Y. Fan
- 15:00 **B-O3-011 Noncovalent Polysaccharide Interactions Studied at the Single Molecule Level**
M. Sletmoen
- 15:15 **B-O3-012 Free Oligosaccharides to Monitor Glycoprotein ERAD in Yeast**
H. Hirayama, J. Seino, T. Kitajima, Y. Jigami, T. Suzuki
- 15:30 **B-O3-013 Discovery of a 16-30-kDa, Highly Glycosylated Glycoprotein from Pig Seminal Plasma (WGA16) that Regulates Sperm Fertilizability**
K. Kitajima, K. Hori, W. Kasekarn, E. Garenaux, T. Tsuchiyama, X. Lian, H. Yasue
- 16:15 **Invited-15 Synthetic Approach Toward Understanding In Vivo Functions of Glycans**
K. Fukase
Chair: V. Pozsgay, National Institutes of Health
- Chair(s): N. Callewaert, VIB and Ghent University
M. Ito, Kyushu University
- 16:45 **C-O3-010 Synthetic Glycans as Vaccine Components**
V. Pozsgay, J. B. Robbins, R. Schneerson
- 17:00 **C-O3-011 A Stable, Lipid-linked Inositol Glycan for Cancer Therapy**
M. dAlarcao, M. Goel, S. Suzuki

- 17:15 **C-03-012 A Fully Synthetic Carbohydrate-Based Vaccine for Cancer**
P. S. Thompson, V. Lakshminarayanan, T. Buskas, M. A. Wolfert, S. Gendler,
 G. J. Boons
- 17:30 **C-03-013 Mucin-like Glycopeptides: Effect of the Peptide Backbone
 Conformation on Molecular Recognition**
F. Corzana, J. H. Busto, de Luis M. Garcia, F. Marcelo, J. L. Asensio,
 Barbero J. Jimenez, A. Avenzoza, J. M. Peregrina
- 17:45 **C-03-014 Relevance of Sulfated Sugars as Main Components of
 Cruzipain, the Major Cysteine Proteinase of Trypanosoma
 Cruzi. Synthesis of New Sulfated Sugar - BSA Conjugates**
J. Kovensky, M. POURCELOT, M. Landoni, A. S. COUTO, V. G. Duschak,
 L. Soprano, D. Acosta

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- 14:15 **Invited-12 Chemistry-Based Methods for Selective Lectin Labeling**
I. Hamachi
 Chair: B. G. Davis, University of Oxford

Chair(s): Y. Hirabayashi, RIKEN
 G. Hart, Johns Hopkins University School of Medicine

- 14:45 **B-03-014 Microbial Carbohydrate Epitopes that are Recognized by
 Human Antibodies**
R. Yamasaki, U. Yabe, C. Kataoka, I. Aoto, S. Asuka
- 15:00 **B-03-015 Detection of Pathogenic *Streptococcus suis* Bacteria using
 Magnetic Glycoparticles**
N. Parera, A. Kouki, S. Haataja, H. M. Branderhorst, R. M. Liskamp,
 G. M. Visser, J. Finne, R. J. Pieters
- 15:15 **B-03-016 Structural Studies on New Synthetic Carbohydrate
 Receptors by NMR and Molecular Modeling**
A. Arda Freire
- 15:30 **B-03-017 Glicoprotein Mimics: Chemical Tools for Understanding the
 Chemical and Biochemical Nature of Glycoprotein-DNA
 Interactions**
C. Vicent, Villar Guerra del, Barbero J. Jimenez

- 16:15 **Invited-16 Facile Chemo-Enzymatic Glycosylating Process through Dialkoxytriazine (DAT) Synthetic Intermediate**
S. Shoda
 Chair: P. Kosma, University of Natural Resources and Applied Life Sciences
- Chair(s): J. Vliegenthart, Utrecht University
 K. Takegawa, Kyushu University
- 16:45 **C-O3-015 N-linked Glycosylation of Antibody Fragments in *Escherichia Coli***
C. Lizak, Y. Y. Fan, M. Aebi
- 17:00 **C-O3-016 Bioengineering of Alpha-2-8 Polysialic Acid-expressing Cancer Cells with N-propionyl Mannosamine Augments their Cytotoxicity to Human anti-N-propionylated Polysialic Acid Antisera**
H. Jennings, Q. Yang, R. Pon
- 17:15 **C-O3-017 A New Mechanism for Anti-Tumor Treatment Based on Xylosides**
U. Ellervik
- 17:30 **C-O3-018 High Sensitivity Mass Spectrometry Analysis Brings New Structural Insight to Complex Biomedical Systems**
A. Dell, S. Haslam, A. Morris
- 17:45 **C-O3-019 Recent Applications of Neoglycolipid (NGL)-based Microarrays in Studies of Receptor-binding Specificities of Influenza Viruses**
Y. Liu, A. Palma, R. Childs, W. Chai, B. Schumann, M. Kiso, S. Wharton, A. Hay, M. Matrosovich, T. Feizi

Wednesday, Aug. 4 Convention Hall

- 09:00 **Plenary-4 Structure, Function and Evolution of Glycosyltransferases**
M. M. Palcic
Chair: M. Pinto, Simon Fraser University
- 09:45 **Plenary-5 Concepts in N-linked Protein Glycosylation**
M. Aebi
Chair: T. Kawasaki, Ritsumeikan University
- 11:00 **Plenary-6 Functional Significance of Polysaccharide Fine Structure in Plant Cell Walls**
G. B. Fincher
Chair: T. Baasov, Technion-Israel Institute of Technology
- 11:45 **Invited-17 Carbohydrate Analysis by Using MALDI-MSn**
K. Tanaka
Chair: N. Packer, Macquarie University

Thursday, Aug. 5 Convention Hall

- 09:00 **Plenary-7 Saccharides, Isotopes, NMR: Structure, Function, Mechanism**
A. S. Serianni
Chair: J. Jiménez-Barbero, CSIC
- 09:45 **Plenary-8 Selective O- and C-Glycosylation of Polycyclic Architectures Derived from Polyketide Biosynthesis**
K. Suzuki
Chair: K. S. Kim, Yonsei University
- 11:00 **Plenary-9 Post-Translational Glycosylation: Challenges and Opportunities**
C. H. Wong
Chair: R. R. Schmidt, University of Konstanz

Convention Hall A

- 14:15 **Invited-18 Targeting Immune Cells with Glycan Ligands of Siglecs**
J. C. Paulson
Chair: C.-H. Wong, Academia Sinica
- Chair(s): T. Kinoshita, WPI Osaka University
R. Gerardy-Schahn, Hannover Medical School
- 14:45 **B-O5-018 Synthetic Vaccines Consisting of Tumor-Associated Glycopeptide MUC1 and Tetanus Toxoid Induce Strong Humoral Immune Responses**
N. Gaidzik, A. Kaiser, H. Kunz
- 15:00 **B-O5-019 Olefin Cross-Metathesis on Protein: Investigation of Allylic Chalcogen Effect and Guiding Principles in Metathesis Partner Selection**
Y. A. Lin, J. M. Chalker, B. G. Davis
- 15:15 **B-O5-020 Identification of a Chondroitin Sulfate-specific Novel Hydrolase in Human**
T. Kaneiwa, M. Shuji, K. Sugahara, S. Yamada

- 15:30 **B-05-021 Applications of Carbohydrate Microarray in Human Diseases**
C. C. Wang
- 16:15 **Invited-22 Specificity of Pyranose–Furanose Mutases from Campylobacter Jejuni**
T. Lowary
Chair: S. Walker, Harvard Medical School
- Chair: T. Lowary, University of Alberta
- 16:45 **B-05-022 Chemical Genomics and Starch Metabolism in Germinating Barley Seed**
R. A. Field
- 17:00 **B-05-023 Structural Basis of Multivalent Binding to Wheat Germ Agglutinin**
V. Wittmann, D. Schwefel, C. Maierhofer, J. G. Beck, S. Seeberger, K. Diederichs, H. M. Moeller, W. Welte

Convention Hall B

- 14:15 **Invited-19 Synthetic Lectins**
A. P. Davis
Chair: V. L. Schramm, Albert Einstein College of Medicine
- Chair(s): A. V. Demchenko, University of Missouri-St. Louis
L. Kononov, N. D. Zelinsky Institute of Organic Chemistry
- 14:45 **A-05-024 A Robust Approach for the Construction of C-Glycosidic Bonds Between Monosaccharide Units**
D. B. Werz
- 15:00 **A-05-025 C-Sialosides : Application to Sialidase-resistant Ganglioside Mimic**
G. Hirai, T. Watanabe, M. Kato, H. Koshino, K. Yamaguchi, S. Moriya, T. Miyagi, M. Sodeoka
- 15:15 **A-05-026 Harnessing the Reactivity of Glycosyl Iodides for the Efficient Synthesis of Glycoconjugates**
M. Schombs, W. Du, S. S. Kulkarni, F. E. Park, Hague J. Gervay

15:30 **A-05-027 Effective and Chemoselective Glycosylations Using 2,3-Unsaturated Sugars**
S. Kusumi, K. Sasaki, S. Wang, T. Watanabe, D. Takahashi, K. Toshima

Chair(s): B. Yu, Shanghai Institute of Organic Chemistry
K. Fukase, Osaka University,

16:15 **A-05-028 2,6-Disubstituted Benzoates As Neighboring Groups for Enhanced Diastereoselectivity in β -Galactosylation Reactions: Scope and Limitations**
S. J. Williams, N. W. McGill, R. J. Williams

16:30 **A-05-029 Synthesis of Heparin Oligosaccharides and Their Interaction with Eosinophil-Derived Neurotoxin**
X. A. Lu, Y. Q. Zhong, S. C. Hung

16:45 **A-05-030 Synthesis of Inner Core Units of Burkholderia Lipopolysaccharides**
P. Kosma, M. Blaukopf, B. Mueller, H. Brade

17:00 **A-05-031 Synthetic Study of Mycobacterial Arabinan**
A. Ishiwata, Y. Ito

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14:15 **Invited-20 Structure and Functions of Chondroitinsulfate Proteoglycans in the Neural Stem Cell Niche**
A. Faissner
Chair: K. Sugahara, Hokkaido University

Chair(s): Y. Hashimoto, Fukushima Medical University
Y. A. Knirel, Russian Academy of Sciences

14:45 **C-05-020 Heparanase Regulates Immune Cell Functions**
N. Higashi, T. Irimura, M. Sue, M. Waki, Y. Kogane, M. Nakajima, Y. Nishimura

15:00 **C-05-021 Phosphatidylinositol Mannosides: Immune Activation or Suppression?**
K. A. Johnston

- 15:15 **C-05-022 Activation of the Complement Lectin Pathway via Interaction Between Human and Mouse Mannose-Binding Lectin (MBL) and Lipopolysaccharides of *Hafnia Alvei*-Identification of Binding Regions and Biological Activity of this Complex**
J. Lukasiewicz, A. Swierzko, A. Maciejewska, M. Farys, W. Jachymek, T. Niedziela, M. Cedzynski, C. Lugowski
- 15:30 **C-05-023 A New Member of Galectin Family**
O. V. Chernikov, I. V. Chikalovets, N. G. Korneychuk, V. I. Molchanova, P. A. Lukyanov
- 16:15 **Invited-23 Glycan Biosynthesis and Regulation: Development of Technology Platforms for Analyzing the Expression and Recombinant Production of Mammalian Glycosylation Enzymes**
K. W. Moremen
Chair: T. Irimura, The University of Tokyo
- Chair: Y. Suzuki, Chubu University
- 16:45 **C-05-024 Outsmarting Influenza: Mechanism-based Neuraminidase Probes**
T. Wennekes, J. H. Kim, F. Jean, B. J. McKimm, M. Petric, S. Withers
- 17:00 **C-05-025 Use of Carbohydrates for Drug including Vaccine and Gene Delivery**
P. Simerska, I. Toth

- 14:15 **Invited-21 Human UDP-Glucose 6-Dehydrogenase: Structure and Function of a Potential Drug Target**
B. Nidetzky
 Chair: G. Fincher, University of Adelaide
- Chair(s): B. E. Christensen, Norwegian University of Science and Technology
 A. Planas, University Ramon Llull
- 14:45 **E-O5-006 Prebiotic Oligosaccharides. Chemoenzymatic Procedures for Efficient Synthesis and Proteomics Identification of the Molecular Basis for Prebiotic Effects in Probiotic Bacteria**
B. Svensson, H. Nakai, A. Majumder, M. Ejby, B. O. Petersen, Y. Westphal, K. Mannerstedt, A. Dilokpimol, S. Lahtinen, H. Schols, J. Duus, M. Abou Hachem
- 15:00 **E-O5-007 Function and Application of Cellulose / Amylose Composite Fiber**
T. Takaha
- 15:15 **E-O5-008 New Food Oligosaccharides via Alternansucrase Acceptor Reactions**
G. L. Cote, C. A. Dunlap, K. E. Vermillion, R. A. Rastall, O. H. Hernandez, M. L. Sanz
- 15:30 **E-O5-009 Novel Modified Oligosaccharides Obtained by a Solid-state Reaction: a New Environmentally Friendly Process**
R. Nervo, A. Heyraud, D. Samain
- 16:15 **Invited-24 Distinct Roles of Neural Cell Specific Carbohydrates, Polysialic Acid and HNK-1 Glycan, in Cell-Cell Interaction and Tumor Formation**
M. Fukuda
 Chair: T. Endo, Tokyo Metropolitan Institute of Gerontology
- Chair: A. Kobayashi, Graduate School of Engineering, Tohoku university
- 16:45 **E-O5-010 Functionalizing Chitin Using Novel Peptide for Nanobiotechnological Applications**
F. Khoushab, M. Yamabhai
- 17:00 **E-O5-011 The Novel Cyclodextran-Producing Method by Using a Single Bacterial Strain of *Bacillus circulans* T-3040**

K. Funane, M. Kitaoka, Y. Kawabata, S. Gibu, M. Kobayashi
(Abstract:: see E-P5-043)

Friday, Aug. 6 Convention Hall

- 09:00 **Plenary-10 Structure, Function, and Inhibition of Human O-GlcNAc Transferase**
S. Walker
Chair: O. Hindsgaul, Carlsberg Laboratory
- 09:45 **Plenary-11 Transition State Analogues as Anticancer and Antimalarial Agents**
V. L. Schramm
Chair: H. Kamerling, Utrecht University
- 11:00 **Plenary-12 Rare Human Glycosylation Disorders = Abundant Opportunities**
H. Freeze
Chair: A. Suzuki, Tokai Univeristy
- 11:45 **Closing Ceremony**