

POSTERS/ABSTRACTS

Poster Session 1 (Posters/Abstracts 45-74)

Poster Session 2 (Posters/Abstracts 75-105)

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SUNDAY, MAY 18, 2008
 POSTER SESSION 1 (Posters 45-74) Hickory Room
 1:30 PM — 2:15 PM

Poster#

45. *Determination of substrate specificity of pomgnt1 using synthetic mannosylated peptides derived from the mucin-like domain of alpha-dystroglycan.*
 Gerardo Alvarez-Manilla, Mian Liu, Karolyn Troupe, Vicki Stickney, Lance Wells, Huaiyu Hu, David Live and Michael Pierce.
46. *Enhancement of recombinant Erythropoietin Sialylation in Chinese hamster ovary cells.*
 Young-Dok Son, Yeon-Tae Jeong, One Choi, Seung-Yeol Park, Jung-Hoe Kim.
47. *Gangliosides protect bowel in an infant model of necrotizing enterocolitis by suppressing pro-inflammatory signals.*
 Kareena L Schnabl, Bodil Larsen, John E Van Aerde, Gordon Lees, Mark Evans, Mike Belosevic, Catherine Field, A.B.R. Thomson & M. T. Clandinin.
48. *Focused glycomic analysis of the N-linked glycan biosynthetic pathway in ovarian cancer.*
 Karen L. Abbott, Alison V. Nairn, Erica M. Hall, Marc B. Horton, John F. McDonald, Kelley W. Moremen, Daniela M. Dinulescu, and Michael Pierce.
49. *Mannosylphospho dolichol synthase and its role in angiogenesis.*
 Dipak K. Banerjee, Krishna Baksi, Aditi Banerjee, and Juan A. Martínez.
50. *In vitro reconstitution of functional T-synthase by the endoplasmic reticulum-localized molecular chaperone Cosmc.*
 Rajindra P. Aryal, Tongzhong Ju, Richard D. Cummings.
51. *Novel glucosyltransferases catalyze the second step in the biosynthesis of the O56 and O152 antigen repeating units of Escherichia Coli.*
 Inka Brockhausen, Bin Liu, Bo Hu, Kenneth Lau, Walter A. Szarek, Lei Wang, Lu Feng.
***Chosen for oral presentation**
52. *Identification and analysis of novel functional sites in human GD3-synthase.*
 Yihua Gu and Robert K. Yu.
53. *Targeted apoptosis of tumor vasculature by carbohydrate-mimicry peptide.*
 Shingo Hatakeyama, Kazuhiro Sugihara, Jun Nakayama, David Smith, Minoru Fukuda, and Michiko N. Fukuda.
***Chosen for oral presentation**
54. *Lectin from elder (Sambucus nigra) as a marker of apoptotic and necrotic death.*
 Fabio Dall'Olio, Nadia Malagolini, Marina Marini and Mariella Chiricolo.
55. *Engineering multivalent sialic acid recognition using the CBM40 module from vibrio cholerae sialidase.*
 Helen Connaris and Garry Taylor.

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56. *Further analysis of signaling pathway enhanced by expression of gangliosides in malignant melanoma cells.*
 Koichi Furukawa, Yuhki Ohkawa, Momoko Tsuji, Sayaka Miyazaki, Yoshio Yamauchi, Kazunori Hamamura, Keiko Furukawa.
57. *Cloning, characterization and expression analysis of limonoid UDP-glucosyltransferase during Citrus Grandis Osbeck fruit maturation.*
 Jin Young Kim, Jeong-Young Moon, Yongmee Kim, Somi K. Cho, Moonjae Cho.
58. *Glycoproteomic analysis of glycoproteins from murine stem cells: use of lectin affinity chromatography on glycopeptide mixtures for the identification of glycobiomarkers.*
 Gerardo Alvarez-Manilla, Nicole L. Warren, James Atwood III, Stephen Dalton, Ron Orlando and Michael Pierce.
59. *Arg¹¹⁰ OF HUMAN FUC-TVII IS CRITICAL FOR PROCESSING OF THE ENZYME.*
 Grahn A, Pålsson P, Nyström K, Olofsson S, & Larson G.
60. *Dimeric Galectin-8 induces Phosphatidylserine exposure in leukocytes through PolyLactosamine recognition by CarboxyL terminal Domain.*
 Sean R. Stowell, Connie M. Arthur, Kristin A. Slanina, John R. Horton, David F. Smith, Richard D. Cummings.
61. *NOVEL POLYMORPHISMS/MUTATIONS IN ALG6 GENE.*
 Sandra Supraha Goreta, Sanja Dabelic, Jerka Dumic.
***Chosen for oral presentation**
62. *A convenient method for synthesis of glyconanoparticles for colorimetric bioassays.*
 Yen-Jun Chuang, Xichun Zhou and Zhengwei Pan.
63. *CHARACTERISTICS OF NCAM POLYSIALYLATION BY POLYSIALYLTRANSFERASES ST8SII AND ST8SIAIV.*
 Sebastian P. Galuska, Rudolf Geyer, Imke Oltmann-Norden, Rita Gerardy-Schahn, Martina Mühlenhoff and Hildegard Geyer.
64. *Structure-function studies of galactolipid synthases.*
 Magali Audry, Cyrille Botté, Eric Maréchal and Christelle Breton.
65. *INSIGHTS ON THE EVOLUTION α 2,8-SIALYLTRANSFERASES (ST8Sia) : HOW FAR CAN α 2,8-SIALYLATION BE TRACED BACK?*
 Anne Harduin-Lepers, Daniel Petit, Rosella Mollicone, Philippe Delannoy, Jean-Michel Petit, Rafael Orió.

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66. *Enhanced synthesis of glycolipids containing 2-hydroxy fatty acids in human ovarian carcinoma-derived cells with anticancer-drug resistance.*
 Masao Iwamori, Yuri Iwamori, Kyoko Tanaka, Isamu Ishiwata, and Kazushige Kiguch.
67. *Xylosyltransferase 2 deficiency affects multiple organs.*
 Eduard Condac, Robert Silasi-Mansat Florea Lupu, Trenton Schoeb, and Myron E. Hinsdale.
68. *STRUCTURE AND FUNCTION STUDIES ON DROSOPHILA AND HUMAN 1,4-GALACTOSYLTRANSFERASE VII.*
 Boopathy Ramakrishnan and Pradman K. Qasba.
69. *Comparative Analysis of Glycan Ligands for Human and Mouse Selectins.*
 Jamie Heimburg-Molinaro, Sean R. Stowell, Yi Lasanajak, Margaret Willard, David F. Smith, and Richard D. Cummings.
70. *Crystal structure of Legionella pneumophila glucosyl transferase (LpGT): Insights into binding of UDP-glucose and elongation factor Ia (efIA).*
 Ramon Hurtado-Guerrero, Sharon Shepherd, Shalini Pathak, Adel F.M. Ibrahim and Daan M.F. van Aalten.
***Chosen for oral presentation**
71. *Aberrant expression of N-glycans in mouse mammary tumors induced by oncoprotein her-2/neu over-expression.*
 Matthew Randolph, Hua-Bei Guo, Alison Nairn, Gerardo Alvarez-Manilla, Kyle Harris, Jae-Min Lim, Heather Johnson, Ryan Blalock, Lance Wells, Kelley Moremen, and Michael Pierce.
72. *ER-localization determinants of Cosmc.*
 Qian Sun, Tongzhong Ju, and Richard D. Cummings
73. *Development of a glycan-based vaccine against schistosomiasis.*
 Anthony Luyai, Margaret Willard, Jamie Heimburg-Molinaro, Carlos Rivera-Marrero and Richard D. Cummings.
74. *COMPLEMENTATION OF A PATHOGENIC IFNGR2 MISFOLDING MUTATION WITH MODIFIERS OF N-GLYCOSYLATION.*
 Guillaume Vogt, Jacinta Bustamante, Ariane Chagier¹, Jacqueline Feinberg, Capucine Picard, Nizar Mahlaoui, Laure Gineau, Alexandre Alcaïs, Christophe Lamaze, Jennifer M. Puck, Geneviève de Saint Basile, Claudia Khayat, Raymond Mikhael and Jean-Laurent Casanova.
***Chosen for oral presentation**

MONDAY, MAY 19, 2008
 POSTER SESSION 2 (Posters 75-105)
 2:00 PM — 2:45 PM

Poster#

75. *ST6GAL I GENE EXPRESSION IS REQUIRED FOR OPTIMAL VIRAL-SPECIFIC CD8 T CELL EXPANSION IN VIVO.*
 Jenish R. Patel, Junwei Zeng, Linda Baum, Rafi Ahmed and Thandi M. Onami.
***Chosen for oral presentation**
76. *Glycan profiling targeting formalin-embedded one-dot tissue sections by means of lectin microarray.*
 Atsushi Kuno, Atsushi Matsuda, Hiroyasu Ishida, Toru Kawamoto, Jun-ichi Shoda, Hisashi Narimatsu, and Jun Hirabayashi.
77. *FUCOSYLTRANSFERASE IX ACTIVITY IN DIFFERENTIATING NEURONS. SPECIFICITY OF THE ENZYME TOWARDS N-LINKED GLYCOPROTEINS.*
 Catarina Brito, Sebastian Kandzia, Harald S. Conradt, Júlia Costa.
78. *Nucleotide Immunodetection: Universal Glycosyltransferase Assays using Transcreener™ Technology.*
 Karen Kleman-Leyer, Matt Staeben, Tom Zielinski, Mark Koeff, and Bob Lowery.
79. *FUNCTIONAL CHARACTERIZATION OF YARROWIA LIPOLYTICA HOMOLOGUES TO SACCHAROMYCES CEREVISIAE MNN4p AND MNN6p.*
 Jeong-Nam Park, Yunkyoung Song, Seon Ah Cheon, Ohsuk Kwon, Doo-Byoung Oh, Jeong-Yoon Kim, and Hyun Ah Kang.
80. *A advanced 3-dimensional platform for carbohydrate microarray fabrication*
 Xichun Zhou and Craig S. Turchi.
81. *POLYLACTOSAMINE ON GLYCOPROTEINS INFLUENCES BASAL LEVELS OF IMMUNOCYTES ACTIVATION.*
 Akira Togayachi, Yuko Kozono, Hiroyasu Ishida, Sumie Abe, Nami Suzuki, Yuki Tsunoda, Kozue Hagiwara, Atsushi Kuno, Takashi Ohkura, Nobuo Sato, Takashi Sato, Jun Hirabayashi, Yuzuru Ikehara, Kouichi Tachibana, and Hisashi Narimatsu.
82. *ST6Gal I CLEAVAGE BY BACE1 ENHANCES THE SIALYLATION OF SOLUBLE GLYCOPROTEINS: A NOVEL REGULATORY MECHANISM FOR α 2,6-SIALYLATION.*
 Shinobu Kitazume, Ichiro Sugimoto, Satoshi Futakawa, Ritsuko Oka2 Kazuko Ogawa, Eiji Miyoshi, Yasuhiro Hashimoto and Naoyuki Taniguchi.
83. *Alterations in Glycan-related Transcripts and Glycan Structural Changes During Differentiation of Murine Embryonic Stem Cells.*
 Alison V. Nairn, Kozuhiro Aoki, Jae-Min Lim, Erica Hall, Mindy Porterfield, Mayumi Ishihara, Michael Kulik, Stephen Dalton, Michael Tiemeyer, Lance Wells, Michael Pierce and Kelley W. Moremen.
84. *COMPLETE CHEMOENZYMATIC SYNTHESIS OF THE FORSSMAN ANTIGEN USING NOVEL GLYCOSYLTRANSFERASES IDENTIFIED IN Campylobacter jejuni AND Pasteurella multocida.*
 R. Scott Houliston, Stéphane Bernatchez, Jianjun Li, Warren W. Wakarchuk, Marie-France Karwaski, and Michel Gilbert.

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85. *A DROSOPHILA BETA1,3-GALACTOSYLTRANSFERASE IS INVOLVED IN VIRGIN FEMALE SURVIVAL.*
 Albana Rexhepaj and Thierry Hennet
***Chosen for oral presentation**
86. *COMBINATION OF GENOMIC AND METABOLOMIC APPROACHES TO CANCER (GLYCO) SPHINGOLIPIDOMICS.*
 Hyejung Park, Amin Momin, Brent Portz, Elaine Wang, Yanfeng Chen, Ying Liu, Jeremy Allegood, Cameron Sullards, Nathan Bowen, Lilya Matyunina, DeEtte Walker, John McDonald and Alfred H. Merrill.
***Chosen for oral presentation**
87. *CONFORMATIONAL PROPERTIES OF POLYPEPTIDE GALNAC TRANSFERASE MUCIN MOTIFS.*
 Andrew Borgert, Mian Liu, George Barany and David Live.
88. *Membrane type sialidase regulates by inhibiting the megakaryocytic differentiation of human megakaryocytic leukemic K562 cells.*
 Kwon-Ho Song, Kyung-Min Kwon, Ji-Min Lee, Yun-Jeong Kang, Hee-Jung Choi, Seok-Jo Kim, Seok-Jong Suh, Tae-Wook Chung, Kyung-Woon Kim Un-Ho Jin, Cheorl-Ho Kim.
89. *Characterization of the 1,3-galactosyltransferase indispensable for the modification of plant N-glycans with Lewis a epitopes .*
 Richard Strasser, Ulrike Vavra, Jennifer Schoberer, Barbara Svoboda, Josef Glössl, Renaud Leonard, Friedrich Altmann, Herta Steinkellner, Lukas Mach.
90. *Generation of glyco-engineered Nicotiana benthamiana for the production of monoclonal antibodies with a homogeneous human-like N-glycan structure.*
 Richard Strasser and Herta Steinkellner.
91. *1,3-N-ACETYLGLUCOSAMINYLTRANSFERASE-8 (3GN-T8) ACTIVATES 3GN-T2: POSSIBLE Involvement of 3GN-T8 in Increasing Poly-N-Acetylactosamine Chains in Differentiated HL-60 Cells.*
 Akira Seko and Katsuko Yamashita.
***Chosen for oral presentation**
92. *Galectin-1 induces reversible phosphatidylserine exposure.*
 Sean R. Stowell, Sougata Karmakar, Connie M. Arthur, Tongzhong Ju, Jonathan Miner, Rodger P. McEver, Richard D. Cummings.
93. *NATURAL GLYCAN MICROARRAY CONSTRUCTED USING A NOVEL FLUORESCENT GLYCAN DERIVATIZATION REVEALS NOVEL LIGANDS FOR GALECTIN-1 AND GALECTIN-3.*
 Xuezheng Song, Baoyun Xia, Sean R. Stowell, Yi Lasanajak, David F. Smith and Richard D. Cummings.
94. *SUPPRESSION OF A549 HUMAN LUNG CARCINOMA CELL GROWTH BY KNOCKDOWN OF TRANSCRIPTION FACTOR SPI.*
 Takeshi Sato and Kiyoshi Furukawa.

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95. *CARCINOEMBRYONIC ANTIGEN, CD66e, AND CD44v COOPERATE TO MEDIATE COLON CARCINOMA CELL ADHESION TO E- AND L-SELECTIN IN SHEAR FLOW.*
 Susan N. Thomas, Ronald L. Schnaar, and Konstantinos Konstantopoulos.
96. Antimicrobial peptide LL-37 interacts with *Neisseria meningitidis* capsular polysaccharides and inhibits inflammatory mediators release from macrophages via TLR2.
 Susu M Zughairer, William M Shafer and David S Stephens.
97. *Glycan Reductive Isotope Labeling (GRIL) for Precision Glycomics.*
 Baoyun Xia, Christa L. Feasley, Goverdhan P. Sachdev, David F. Smith and Richard D. Cummings.
98. Disruption of *Cosmc* in Mouse Resulting in the Expression of Tn Antigen.
 Yingchun Wang, Tongzhong Ju, Wenyi Wang and Richard D. Cummings.
99. *Structure and dynamics of the yeast UDP-GlcNAc transferase subunit Alg13.*
 Xu Wang, Thomas Weldeghiorghis, Guofeng Zhang, Barbara Imperiali³ & James H. Prestegard.
100. *STRUCTURAL INSIGHTS INTO THE O-GlcNAc MODIFICATION*
 Gideon J Davies, Carlos Martinez-Fleites, Yuan He, Matthew Macaulay, David Shen, & David Vocadlo
***Chosen for oral presentation**
101. The β -1,4-galactosyltransferase from *Helicobacter pylori* is an efficient and versatile biocatalyst displaying a novel activity for thioglycoside synthesis.
 Darius-Jean Namdjou, Hong-Ming Chen, Evgenii Vinogradov, Denis Brochu, Stephen G. Withers and Warren W. Wakarchuk
102. *Deafness in mice lacking ganglioside GM3 synthase.*
 Misato Yoshikawa, Shinji Go, Kotaro Takasaki Yasuhiro Kakazu, Mitsuru Ohashi, Masakazu Nagafuku, Kazuya Kabayama Kazutaka Takaiwa, Takashi Kimitsuki, Nozomu Matsumoto d, Shizuo Komune, Daisuke Kamei, Masaki Saito, Mitsuhiro Fujiwara, Katsunori Iwasaki, and Jin-ichi Inokuchi.
103. *ABNORMAL GLYCOSYLATION CHAINS OF TAMM-HORSFALL PROTEIN FOUND IN INTERSTITIAL CYSTITIS PATIENTS.*
 Sulabha Argade, Christopher Vanichsarn, Marianne Chenoweth, C. Lowell Parsons.
104. THE HIGHLY RELATED C-TYPE LECTINS DC-SIGN AND L-SIGN DIFFERENTIALLY RECOGNIZE EGG GLYCOCONJUGATES OF *SCHISTOSOMA MANSONI*
 Sandra Meyer, Boris Tefsen, Anne Imberty, Caroline van Stijn, Ellis van Liempt, Sandra van Vliet, Rudolf Geyer and Irma van Die.
105. *Chitin-binding Domain Proteins Required for Germline and Embryonic Development.*
 Wendy L. Johnston, Aldis Krizus and James W. Dennis