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Special Issue in Honor of the 65th Birthday of Professor Johann P. Kamerling

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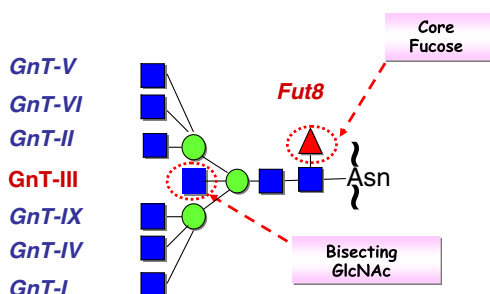
Editor: D. C. Baker

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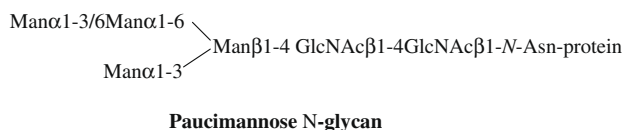
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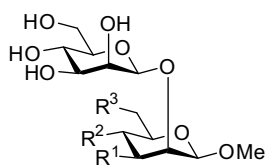
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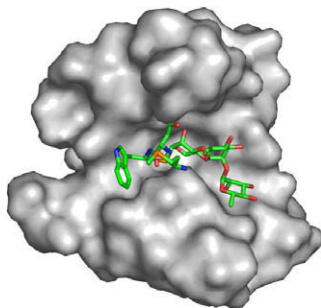
Corwin M. Nycholat, David R. Bundle *



- 1, $R^1 = R^2 = R^3 = OH$
- 2, $R^1 = H, R^2 = R^3 = OH$
- 3, $R^1 = OCH_3, R^2 = R^3 = OH$
- 4, $R^2 = H, R^1 = R^3 = OH$
- 5, $R^2 = OCH_3, R^1 = R^3 = OH$
- 6, $R^3 = H, R^1 = R^2 = OH$
- 7, $R^3 = OCH_3, R^1 = R^2 = OH$

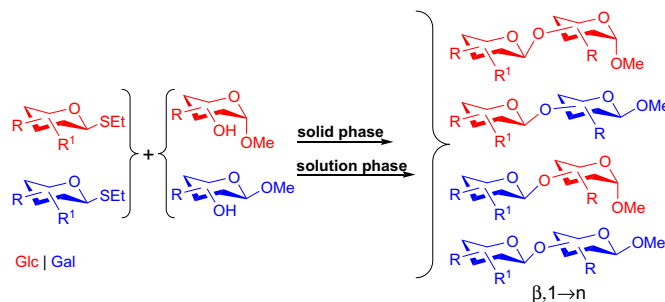
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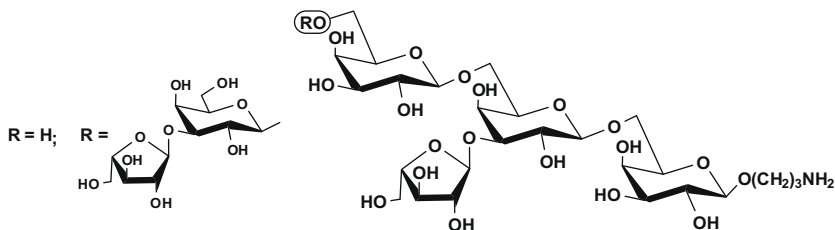
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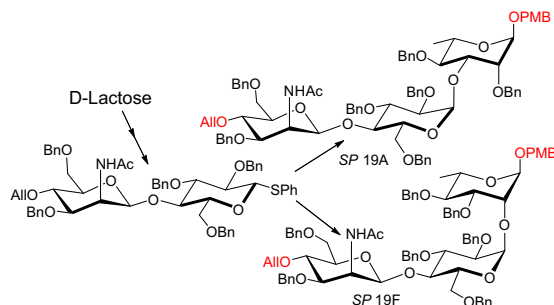
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A new route for the synthesis of *Streptococcus pneumoniae* 19F and 19A capsular polysaccharide fragments avoiding the β -mannosamine glycosylation step

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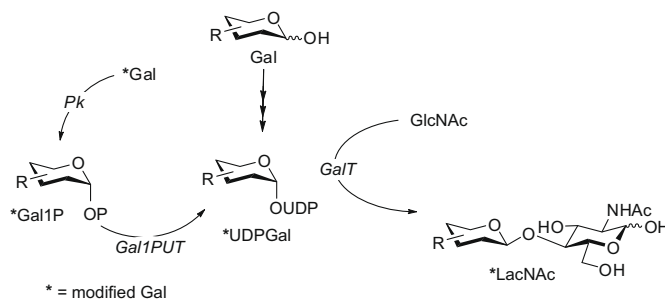
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En route to deoxygenated *N*-acetylglucosamine analogues employing uridyl and galactosyl transferases

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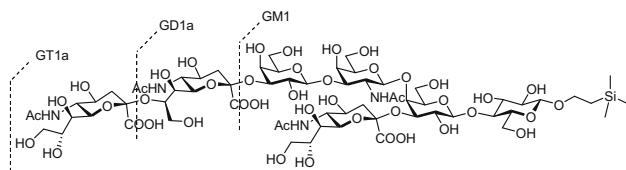
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Study on systematizing the synthesis of the α -series ganglioside glycans GT1a, GD1a, and GM1 using the newly developed *N*-Troc-protected GM3 and GalN intermediates

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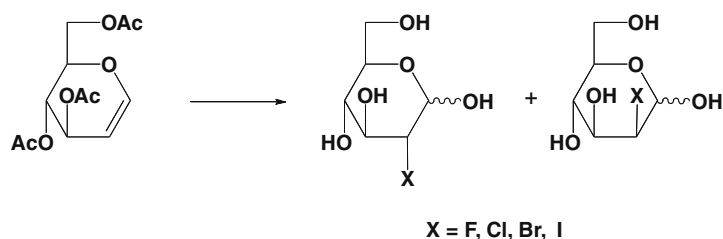
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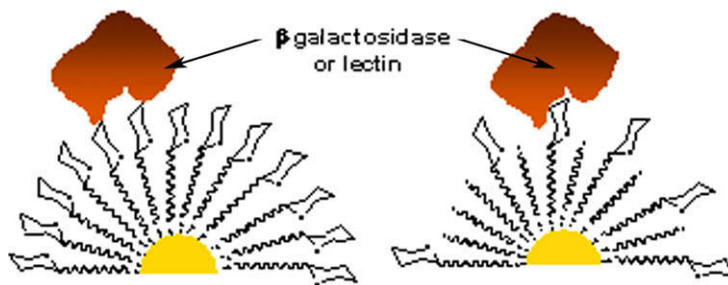
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Modulating glycosidase degradation and lectin recognition of gold glyconanoparticles

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Africa G. Barrientos, Jesús M. de la Fuente, Marta Jiménez, Dolores Solís, F. Javier Cañada, Manuel Martín-Lomas *, Soledad Penadés

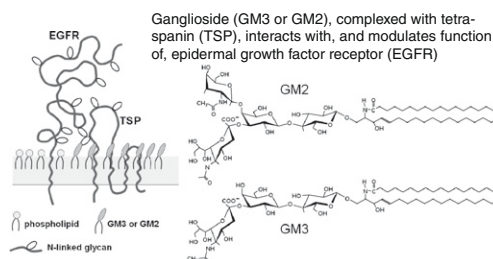


Stable to enzyme degradation and selective to target lectins, glyconanoparticles represent new tools for intervening in carbohydrate-mediated processes in vivo.

Control of cell motility by interaction of gangliosides, tetraspanins, and epidermal growth factor receptor in A431 versus KB epidermoid tumor cells

pp 1479–1486

Seung-Yeol Park, Seon-Joo Yoon, Leonardo Freire-de-Lima, Jung-Hoe Kim, Sen-itiroh Hakomori *

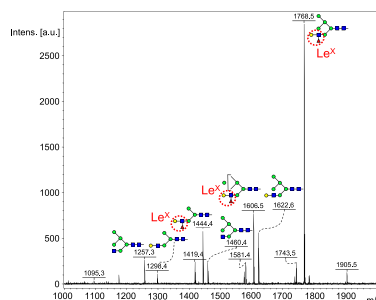


Growth and motility of epidermoid carcinoma cells A431 are distinctively different from those of epidermoid carcinoma cells KB, in the levels and functions of epidermal growth factor receptor, complex between ganglioside, tetraspanin (CD9 or CD82), and integrins.

Synthesis of Lewis X epitopes on plant N-glycans

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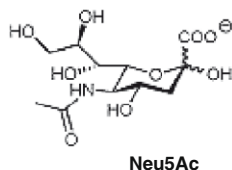
Gerard J.A. Rouwendal *, Dion E.A. Florack, Tamara Hesselink, Jan H. Cordewener, Johannes P.F.G. Helsper, Dirk Bosch



Low incidence of N-glycolylneuraminic acid in birds and reptiles and its absence in the platypus

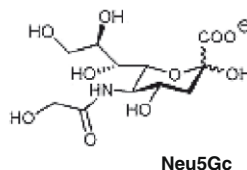
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Roland Schauer *, G. Vinayaga Srinivasan, Bernadette Coddeville, Jean-Pierre Zanetta, Yann Guérardel



N-Acetylneuraminic acid

In all birds, reptiles and platypus



N-Glycolylneuraminic acid

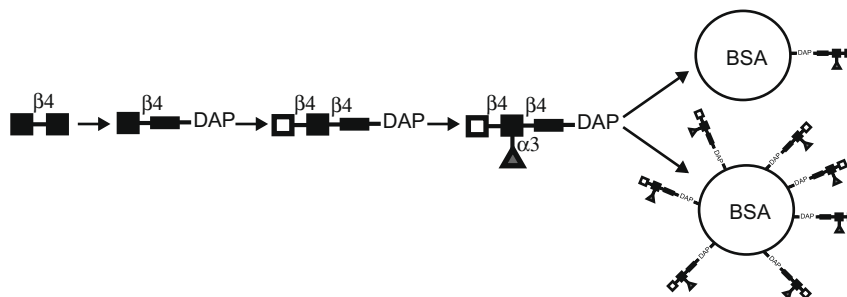
Only in a few birds and reptiles

Apparent lack of Neu5Gc biosynthesis in sauropsids and monotremes

Chemoenzymatic synthesis of multivalent neoglycoconjugates carrying the helminth glycan antigen LDNF

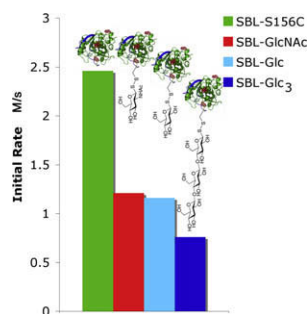
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Boris Tefsen, Caroline M.W. van Stijn, Marloes van den Broek, Hakan Kalay, Jaco C. Knol, Connie R. Jimenez, Irma van Die *

**Site-selective chemical protein glycosylation protects from autolysis and proteolytic degradation**

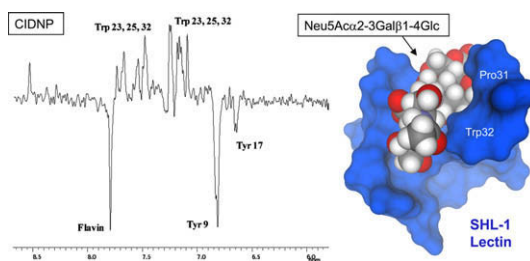
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**A lectin from the Chinese bird-hunting spider binds sialic acids**

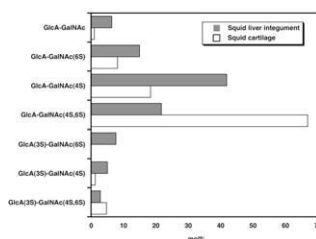
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**Isolation and characterization of a novel chondroitin sulfate from squid liver integument rich in N-acetylgalactosamine(4,6-disulfate) and glucuronate(3-sulfate) residues**

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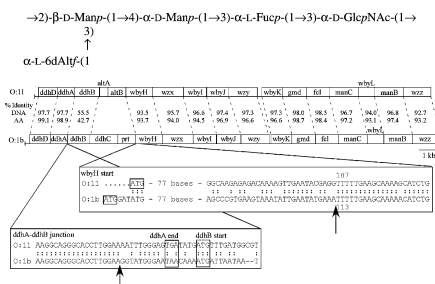
Ajaya Kumar Shetty, Takanari Kobayashi, Shuji Mizumoto, Masaki Narumi, Yoshiaki Kudo, Shuhei Yamada *, Kazuyuki Sugahara *



Unique disaccharide composition of novel chondroitin sulfate from squid liver integument rich in N-acetylgalactosamine(4,6-disulfate) and glucuronate(3-sulfate) residues. 2S, 3S, 4S, and 6S represent 2-sulfate, 3-sulfate, 4-sulfate and 6-sulfate, respectively.

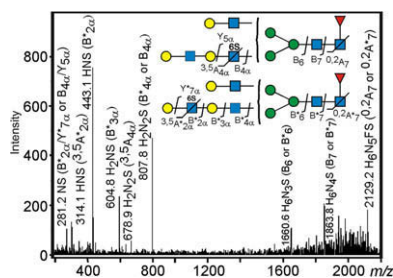
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Monica M. Cunneen, Cristina De Castro, Johanna Kenyon, Michelangelo Parrilli, Peter R. Reeves, Antonio Molinaro, Otto Holst *, Mikael Skurnik



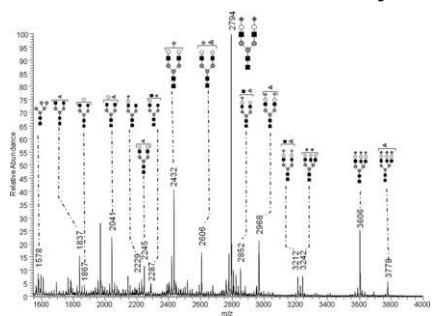
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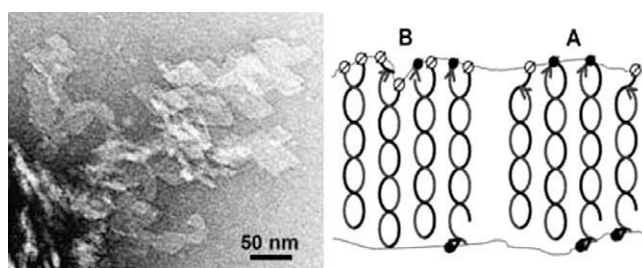
Mailys Guillard, Jolein Gloerich, Hans J.C.T. Wessels, Eva Morava, Ron A. Wevers, Dirk J. Lefeber *



Representative set of permethylated serum N-glycans measured on MALDI-linear ion trap using α -cyano-4-hydroxycinnamic acid as matrix.

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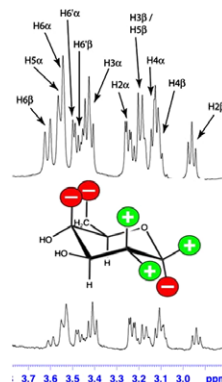
Hélène Angellier-Coussy, Jean-Luc Putaux, Sonia Molina-Boisseau, Alain Dufresne, Eric Bertoft, Serge Perez *



Specificity of ligand binding to yeast hexokinase PII studied by STD-NMR

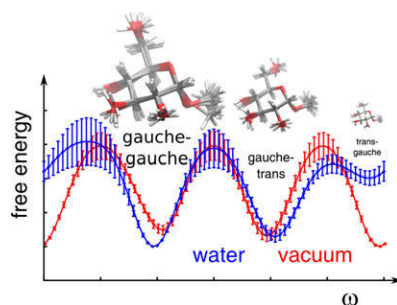
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Astrid Blume, Michael Fitzen, Andrew J. Benie, Thomas Peters *

**Metadynamics modelling of the solvent effect on primary hydroxyl rotamer equilibria in hexopyranosides**

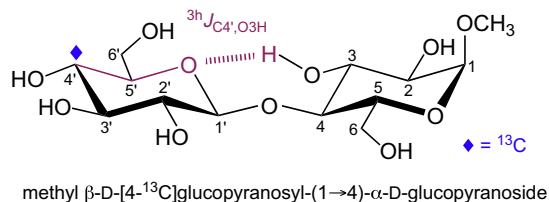
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**An NMR investigation of putative interresidue H-bonding in methyl α -cellobioside in solution**

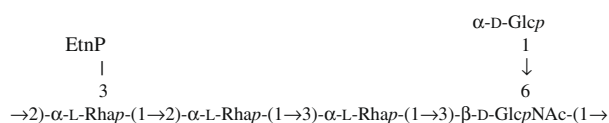
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Wenhui Zhang, Hongqiu Zhao, Ian Carmichael, Anthony S. Serianni *

**Notes****A new ethanolamine phosphate-containing variant of the O-antigen of *Shigella flexneri* type 4a**

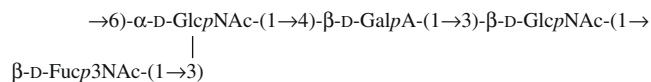
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Andrei V. Perepelov *, Vyacheslav L. L'vov, Bin Liu, Sof'ya N. Senchenkova, Mariya E. Shekht, Alexander S. Shashkov, Lu Feng, Petr G. Aparin, Lei Wang, Yuriy A. Knirel



Structural determination of the O-antigenic polysaccharide from *Escherichia coli* O74**pp 1592–1595**

K. Hanna M. Jonsson, Andrej Weintraub, Göran Widmalm *



*Corresponding author

 Supplementary data available via ScienceDirect**COVER**

High-mannose-type asparagine-linked glycans play critical roles in glycoprotein processing and quality control in the endoplasmic reticulum. However, the analysis of these events has been hindered by the limited availability of glycan substrates. Work by Ito and co-workers has enabled the systematic synthesis of high mannose-type glycans, which were converted to conjugates with various small molecules and proteins. These probes revealed the substrate specificities of lectins, chaperones, and glycoprotein-processing enzymes.

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