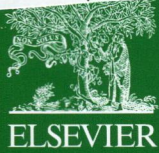


M
C21/n

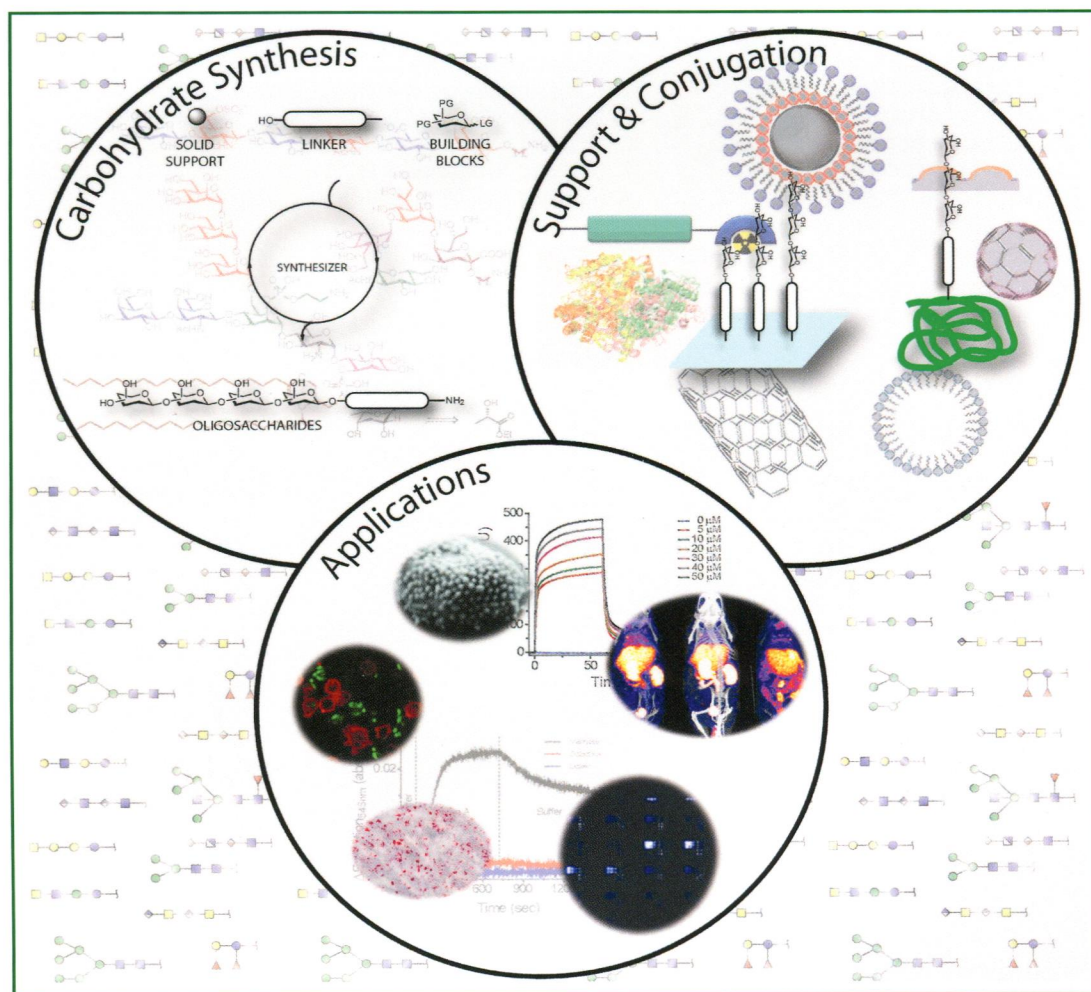


ELSEVIER

Volume 378, 30 August 2013 ISSN 0008-6215

Carbohydrate RESEARCH

An International Journal



Available online at www.sciencedirect.com

ScienceDirect

Polysaccharide Structure, a Special Issue in
Memory of Lemart Keme and Makohn Perry
Guest Editor: Dr. Todd L. Lowary

Carbohydrate Research Vol. 378, 2013

Contents

Polysaccharide Structure, a Special Issue in Memory of Lennart Kenne and Malcolm Perry

Guest editor: Dr. Todd L. Lowary

IN MEMORIAM

Lennart Kenne (1944–2012)

Elke Schweda, Göran Widmalm, Per-Erik Jansson

p 1

Malcolm B. Perry (1930–2012)

David R. Baundle, Martine Craff

pp 2–3



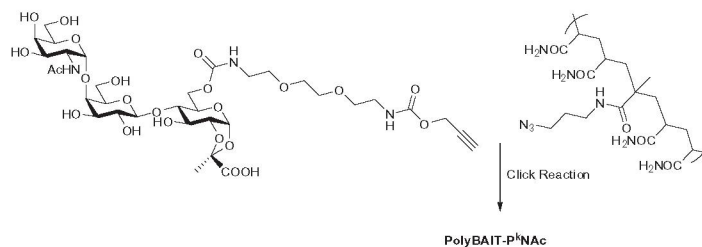
FULL PAPERS

Synthesis

The synthesis of a multivalent heterobifunctional ligand for specific interaction with Shiga toxin 2 produced by *E. coli* O157:H7

pp 4–14

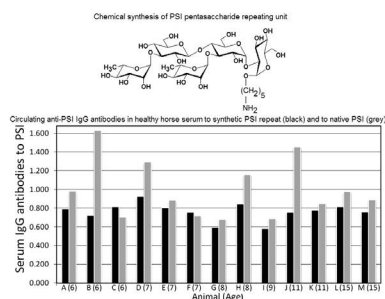
Jared M. Jacobson, Pavel I. Kitov, David R. Bundle*



Clostridium difficile PSI polysaccharide: synthesis of pentasaccharide repeating block, conjugation to exotoxin B subunit, and detection of natural anti-PSI IgG antibodies in horse serum

pp 15–25

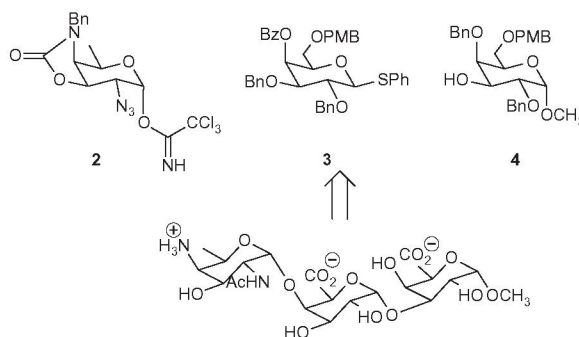
Yuening Jiao, Zuchao Ma, Doug Hodgins, Brittany Pequegnat, Lisa Bertolo, Luis Arroyo, Mario A. Monteiro*



Synthesis of a trisaccharide repeat of the zwitterionic Sp1 capsular polysaccharide utilizing 2-azido-4-benzylamino-4N,3-O-carbonyl-2,4,6-trideoxy-D-galactopyranosyl trichloroacetimidate

pp 26–34

Ithayavani Iynkkaran, David R. Bundle*

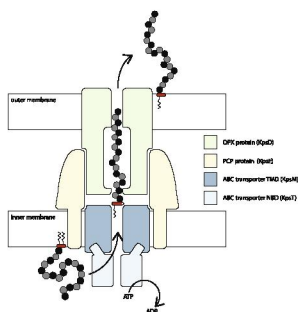


Biochemistry and Enzymes

Structure, biosynthesis, and function of bacterial capsular polysaccharides synthesized by ABC transporter-dependent pathways

pp 35–44

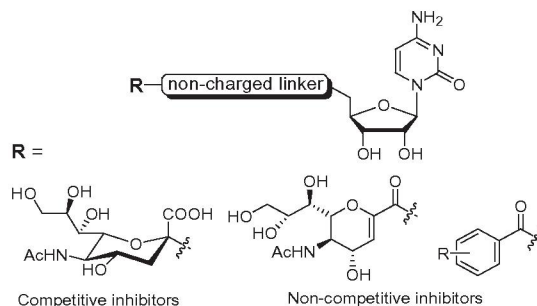
Lisa M. Willis, Chris Whitfield*



Sialyltransferase inhibitors: consideration of molecular shape and charge/hydrophobic interactions

pp 45–55

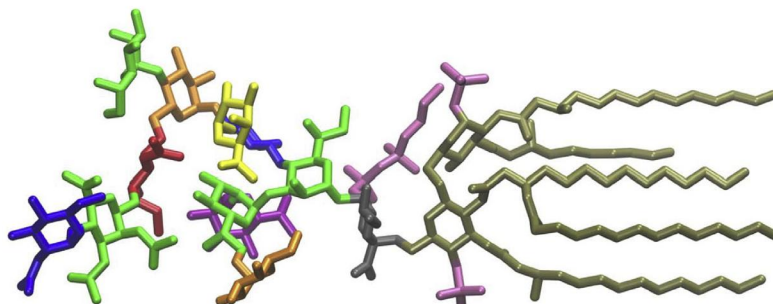
Rishi Kumar, Ravindranath Nasi, Milan Bhasin, Nam Huan Khieu, Margaret Hsieh, Michel Gilbert, Harold Jarrell, Wei Zou*, Harold J. Jennings



Comparison of lipopolysaccharide structures of *Bordetella pertussis* clinical isolates from pre- and post-vaccine era

pp 56–62

Sami AlBitar-Nehme, Soorej M. Basheer, Elisabeth Njamkepo, Jean-Robert Brisson, Nicole Guiso, Martine Caroff*

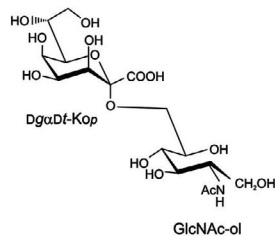


Characterizations, Natural Products

Isolation and structural characterization of a (Kdo-isosteric) D-glycero- α -D-talo-oct-2-ulopyranosidonic acid (Ko) interlinking lipid A and core oligosaccharide in the lipopolysaccharide of *Acinetobacter calcoaceticus* NCTC 10305

pp 63–70

Ulrich Zähringer*, Kazuyoshi Kawahara, Paul Kosma

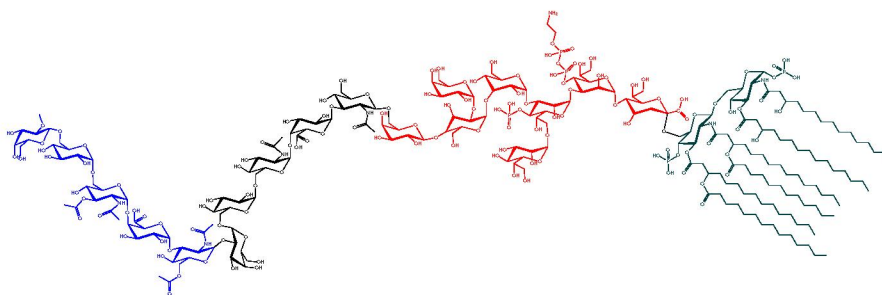


D-glycero- α -D-talo-oct-2-ulopyranosylate-(2→6)-2-acetamido-2-deoxy-D-glucitol

Reprint of “New complete structure of *Hafnia alvei* clinical isolate strain PCM 2670 semi-rough lipopolysaccharide”

pp 71–78

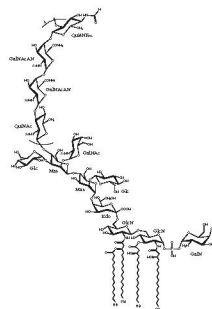
Ewelina Bobko, Michal Tyras, Wojciech Jachymek*



The atypical lipopolysaccharide of *Francisella*

pp 79–83

Nihal A. Okan, Dennis L. Kasper*

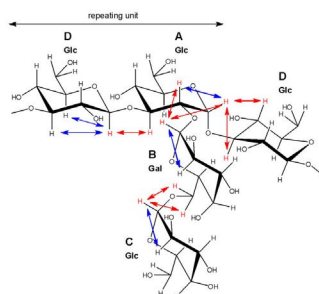


Polysaccharides

Structure determination of the exopolysaccharide of *Lactobacillus fermentum* TDS030603—A revision

pp 84–90

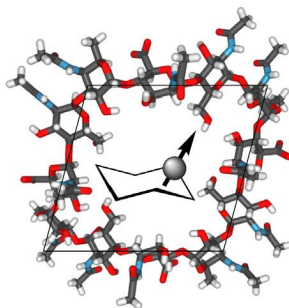
Gerrit J. Gerwig*, Justyna M. Dobruchowska, Tala Shi, Tadasu Urashima, Kenji Fukuda, Johannes P. Kamerling



A perspective on the primary and three-dimensional structures of carbohydrates

pp 123–132

Göran Widmalm



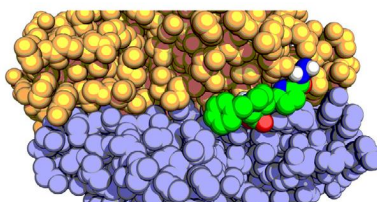
NOTES

Biochemistry and Enzymes

An in silico virtual screening study for the design of norovirus inhibitors: fragment-based molecular docking and binding free energy calculations

pp 133–138

Magnus Lundborg, Eunus Ali, Göran Widmalm*



Characterization, Natural Products

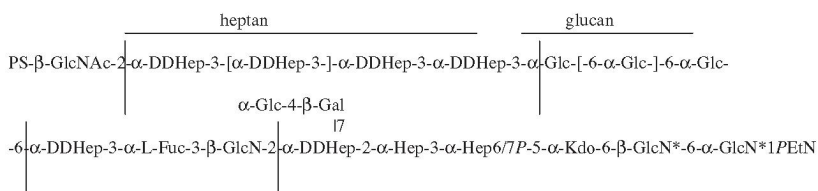
Lipopolysaccharide structure of *Helicobacter pylori* serogroup O:3

pp 139–143

Eleonora Altman, Vandana Chandan, Jianjun Li, Evgeny Vinogradov*

Lipopolysaccharide structure of *Helicobacter pylori* serogroup O:3

Eleonora Altman, Vandana Chandan, Jianjun Li and Evgeny Vinogradov



Polysaccharides

Reinvestigation of the structure of *Brucella* O-antigens

pp 144–147

Joanna Kubler-Kielb, Evgeny Vinogradov*

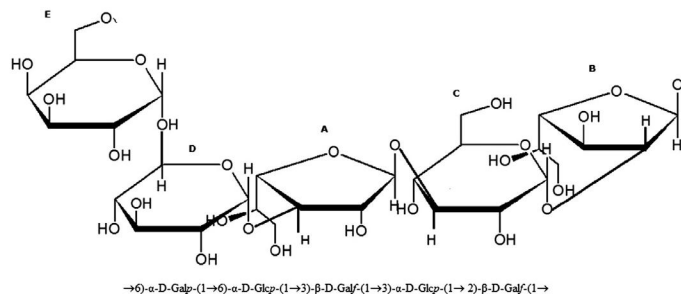
[-2-α-Rha4NFo-2-α-Rha4NFo-3-α-Rha4NFo-2-α-Rha4NFo-2-α-Rha4NFo-] old structure

[-2-α-Rha4NFo-2-α-Rha4NFo-3-α-Rha4NFo-2-α-Rha4NFo-]-[-2-α-Rha4NFo-] new structure

The structure and immunoreactivity of exopolysaccharide isolated from *Lactobacillus johnsonii* strain 151

pp 148–153

Sabina Górska-Frączek*, Corine Sandström, Lennart Kenne, Mariola Paściak, Ewa Brzozowska, Magdalena Strus, Piotr Heczko, Andrzej Gamian



*Corresponding author

i+ Supplementary data available via ScienceDirect

COVER

Multi-functionalisation of cyclodextrins (CD) has entered a new era thanks to the regioselective chemistry developed by M. Sollogoub's group. As illustrated on the cover, many applications can now be reached using CDs with various functions on specific positions. An example of functionalisation of CDs is given in the first issue of this journal. Image realised by Mickaël Ménand.

Available online at www.sciencedirect.com**ScienceDirect**

Abstracted/Indexed in: Chem. Abstr.: Curr. Contents: Phys., Chem. & Earth Sci. Life Sci. Current Awareness in Bio. Sci. (CABS). Science Citation Index. Full texts are incorporated in CJELSEVIER, a file in the Chemical Journals Online database which is available on STN® International. Also covered in the abstract and citation database Scopus®. Full text available on ScienceDirect®



ELSEVIER

ISSN 0008-6215