

Synthesis and Speculations About Multivalent Carbohydrates

Prof. Dr. Thisbe Lindhorst

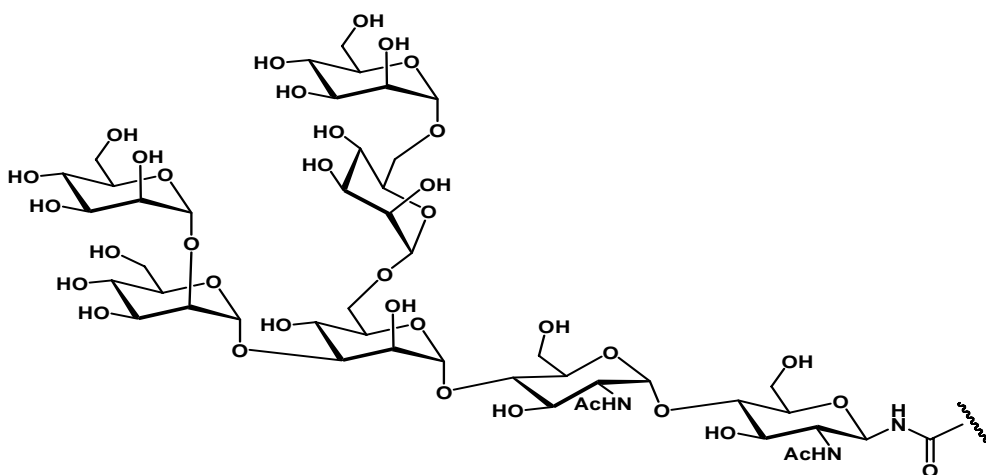
Otto Diels Institut für Organische Chemie
Christian-Albrechts-Universität zu Kiel

Abstract:

Every eukaryotic cell is covered by a nano-dimensioned layer of highly diverse glycoconjugates, which is called the "glycocalyx". A most prominent feature of glycocalyx is multivalency: glycocalyx oligosaccharides are hyperbranched and project from the cell surface in multiple copies of multifaceted complexity.

Until today, this molecular super-system is not completely understood as a whole, with all its biological implications.

This talk will focus on the design and synthesis of multivalent glycomimetics to study adhesion of bacteria to the sticky surface of their target cells. Results from various adhesion assays will be discussed leading to speculations about the nature of multivalency in this complex play of ligand-receptor interactions.



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