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Synthesis and applications of cell wall glycopolymer fragments from Staphilococci and Enterococci

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Stellingen

Behorende bij het proefschrift

Synthesis and application of cell wall glycopolymer fragments from Staphylococci and Enterococci

1. The choice of negative and positive controls in a bioassay can be crucial for the interpretation of the results.
M. Lipstish. E. Tchetgen, T, Cohen Epidemiology, 2010, 21: 383-388
2. A close and continuous crosstalk between glycochemists and glycoimmunologists is essential for the successful development of efficient immune modulators.
M. Anderluh et al., The FABS Journal, 2021, 14: 4251-4303
3. The context-dependent ambiguity of sugars expands their use to write biological codes.
H-J Gbius et al., ChemBioChem, 2022, 23: e202100327
4. Establishing the minimal epitope of carbohydrate antigens is essential for the development of optimal synthetic vaccines.
R. Adamo, Accounts Chem Res, 2017, 50, 1270-1279
5. The construction of oligosaccharides, built up from repeating units containing several different monosaccharide residues, can most effectively be achieved using properly protected repeating units.
This Thesis (Chapter 2)
6. The inclusion of teichoic acid fragments carrying d-Ala substituents in binding studies with antibodies and lectins will be of particular importance as this modification is known to play an important role in teichoic acid biology.
This Thesis (Chapter 3)
7. The stereochemistry of the glycerolphosphate monomers that make up the teichoic acid backbone are important for the interaction with binding partners.
This Thesis (Chapter 4)
8. The availability of a library of poly-alditolphosphate antigen candidates, with different substitution patterns, will be valuable in the generation of specific monoclonal antibodies for teichoic acid-based vaccine developments.
This Thesis (Chapter 5)
9. The microarray technology should be included in the selection process of a monoclonal antibody.

Francesca Berni
Leiden, 19 oktober 2023