Diversity of galactose-containing structures in fungal cells

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Galactofuranose (Gal*f*) has been identified as a component of the *N*- and *O*-glycans of the cell wall peptidogalactomannan (pGM) of *Aspergillus fumigatus*, *Cladosporium resinae* and *C.herbarum*. Typically, Gal*f* has been described to occur in the galactomannan as side chains of 5-*O*-substituted Gal*f* with an average length of approximately 5 units linked to O-6 of the mannan core. The importance of the carbohydrate moiety for the antigenicity was thus highlighted. Periodate treatment, partial acid hydrolysis and alkaline, reductive β- elimination of pGM removed most of the antibody-binding capacity. A novel galactose-containing galactomannan was isolated from *Fusarium oxysporum* and its structure differs from other pGM previously reported from our group, presenting a backbone of (1→6)-linked β-D- Gal*f* residues with mutiple side chains. The biological significance of these Gal*f*-containing glycoconjugates in relation to the pathogenicity will be discussed.

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