COMPARISON OF GLYCOPROTEINS FROM OPPORTUNISTIC PATHOGENS *SCEDOSPORIUM PROLIFICANS* AND RELATED *PSEUDALLESCHERIA BOYDII*

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Scedosporium prolificans is an ubiquitous filamentous fungus, causing infection in both immunocompetent and immunocompromized patients. The structure of Its mycelial galactorhamnomannoprotein (RMP-Sp) was compared with that of the related pathogen *Pseudallescheria boydii* (RMP-Pb), which contains Rha*p*-(1→3)-Rha epitopes linked (1→3)- to Man*p* [1]. Reductive, alkaline β-elimination gave α-Rha*p*-(1→3)-α-Rha*p*-(1→3)-α-Man*p*-(1→2)-Man-ol, substituted at O-6 with α-Glc*p*-(1→4)-β-Gal*p*. It had a hapten reduction effect of ~75% [2]. RMP-Sp contained similar carbohydrates (63%), except that both 2-*O*- and 3-*O*-subst. Rha*p* units were present. Reductive β-elimination of RMP-Sp gave principally penta- and hexasaccharides, the former being [α-Rha*p*]$_3$-α-Man*p*-(1→2)-Man-ol and the latter with β-Gal*p* substituents at O-6 of Man-ol (ESI-MS, ESI-MS-MS, ^{13}C NMR). Partial acetolysis of RMP-Sp gave [α-Rha*p*-(1→2)]$_{1-2}$-Rha, α-Rha*p*-(1→2)-Man, and α-Man*p*-(1→3)-Man. The structural differences between *S. prolificans* and *P. boydi*i PRMs were consistent with ELISA antigenicity tests, carried out with hyperimmune rabbit antiserum against mycelial forms of *P. boydii*, which reacted strongly but less so with *S. prolificans* RMP-Sp

[1] M.R. Pinto et al., Microbiology, 147, 1499 (2001); [2] M.R. Pinto et al., Glycobiology,15, 895 (2005).

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