

INTERMOLECULAR ASSOCIATION OF GLUCURONOXYLOMANNAN IN CULTURE SUPERNATANTS OF *CRYPTOCOCCUS NEOFORMANS*

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Glucuronoxylomannan (GXM) is the major capsular polysaccharide of the fungal pathogen *Cryptococcus neoformans*, the causative agent of cryptococcosis. Structural features of GXM define the serological classification of *C. neoformans* into four serotypes (A, B, C and D). The polysaccharide is associated to the cell surface of *C. neoformans* and also secreted to the extracellular milieu, where it induces several deleterious effects to the host's immune system. In this study, we observed that the concentration of culture supernatants of three different isolates of *C. neoformans* (serotypes A, B and D) in ultrafiltration cells results in a highly viscous film over the filtration disc. Nuclear magnetic resonance analysis of the dense material obtained by ultrafiltration revealed the presence of pure GXM. Polysaccharide aggregation in the different isolates ranged from 60.38% to 95.62% of the total GXM amount in the supernatants. GXM aggregation did not correlate with capsule sizes or polysaccharide secretion in the different isolates, suggesting that the interaction between GXM chains requires specific structural features. The mechanisms by which GXM forms dense aggregates and their potential relationship with capsule growth and assembly are under investigation in our laboratory.