

Mille C., Fradin C., Delplace F., Trinel P.A., Masset A., François N., Coddeville B., Bobrowicz P., Jouault T., Guerardel Y., Wildt S., Janbon G., Poulain D. (2012). Members 5 and 6 of the *Candida albicans* BMT family encode enzymes acting specifically on beta-mannosylation of the phospholipomannan cell wall glycosphingolipid. *Glycobiology* 22(10):1332-42

A family of nine genes encoding proteins involved in the synthesis of β -1,2 mannose adhesins of *Candida albicans* has been identified. Four of these genes, BMT1-4, encode enzymes acting stepwise to add β -mannoses on to cell-wall phosphopeptidomannan (PPM). None of these acts on phospholipomannan (PLM), a glycosphingolipid member of the mannose-inositol-phosphoceramide family, which contributes with PPM to β -mannose surface expression. We show that deletion of BMT5 and BMT6 led to a dramatic reduction of PLM glycosylation and accumulation of PLM with a truncated β -oligomannoside chain, respectively. Disruptions had no effect on sphingolipid biosynthesis and on PPM β -mannosylation. β -Mannose surface expression was not affected, confirming that β -mannosylation is a process based on specificity of acceptor molecules, but liable to global regulation