

**P052** Recognition and orientation of host cell response by PRRs as a function of glycans expressed by yeasts

**Sarazin, A,<sup>1,2</sup> Martínez-Esparza, M,<sup>3</sup> Poulain, D<sup>1,2</sup> and Jouault, T<sup>1,2</sup>**

1- Inserm U799, Lille, France

2- LMFA, Université de Lille II , Lille, France

3- Bioquímica y Biología Molecular (B) e Inmunología, Universidad de Murcia, Murcia, Spain

*The yeast Candida albicans* is part of normal human microbial flora. It is also an opportunistic pathogen responsible for nosocomial infections with high morbidity and mortality.. Detection of yeasts by host cells depends on recognition of a variety of cell wall components by PRRs. This interplay triggers signalling pathways leading to differential cytokine production which influence virulence.

We developed a model of living yeasts differently expressing glycans acting as PRRs ligands and based on protoplast generation. Glycans expression was determined by flow cytometry using different antibodies specific for glycan epitopes and/or lectins. According to glycans presentation, induction of pro- and/or anti-inflammatory cytokines in macrophages was examined. In parallel, yeasts endocytosis and killing efficiency were evaluated.

Expression levels of the different glycans acting as PRRs ligands were successfully evaluated by flow cytometry. Depending on the glycans presented by the yeasts, recognition by and response of macrophages was modulated, leading to either pro- or anti-inflammatory response.