

## **Biophysical characterization of the interaction of novel aromatic glycolipid surfactants with membrane models.**

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Aromatic glycolipids are of both medical and pharmaceutical interest. Antimicrobial, antiviral and anti-inflammatory activities have been reported (Otto, 2000, Journal of Molecular Catalysis B: Enzymatic). Moreover, they are expected to have interesting antioxidant properties when they contain phenolic groups. The alkyl chain should enhance their ability to penetrate into the cellular membrane (Nicolosi, 2002, Journal of Molecular Catalysis B: Enzymatic). The presence of a sugar unit could also be useful to target specific cells.

In this study, novel aromatic glycolipids were synthesized as useful models for studying the structure–activity relationship, in particular as a function of their aromatic group.

Their interaction with membranes was studied with monolayer models and was predicted by a computational approach. The relationships between these data and their cytotoxicity and antioxidant properties evaluated on cell cultures are discussed.