

New approach to glycoamphiphiles integrated in a LC-based biosensor for pathogen lectin detection

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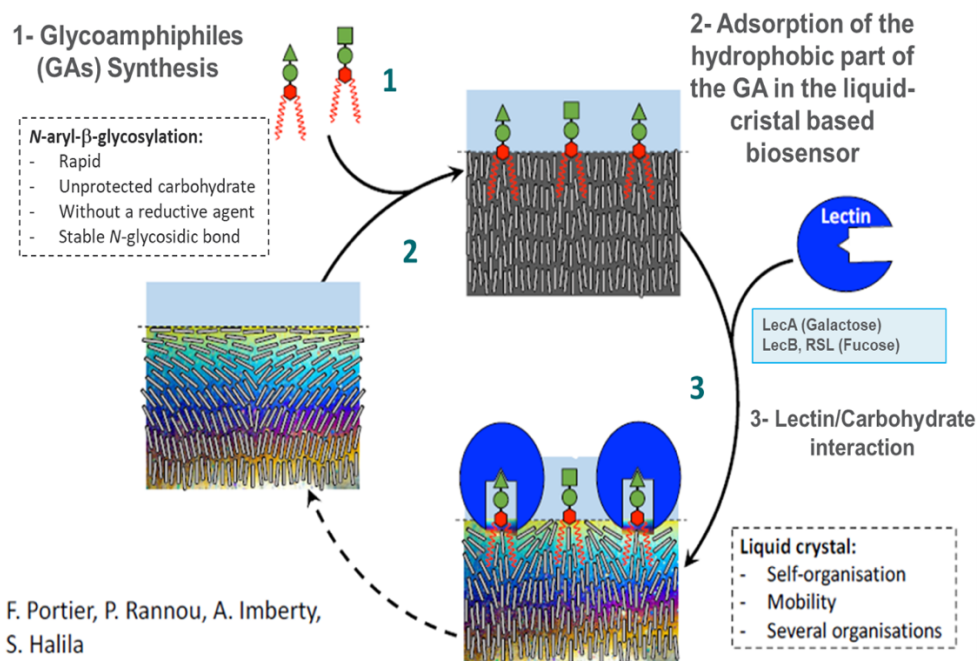
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Glycoconjugates present on membrane cell surfaces play critical roles in a wide variety of pathological processes acting as signaling, recognition, and bacterial adhesion. Consequently, major scientific and biotechnological interests in glycoconjugates derive from their use as probes for biological research, and lead compounds for diagnostic tools¹.

The project of this research aims at developing a modular access to GlycoAmphiphiles (GAs) for the liquid crystal-based optical detection² of carbohydrates interacting with lectins coming from opportunistic pathogens such as *Pseudomonas aeruginosa*³.

This poster will discuss about the synthesis of GAs by *N*-aryl-glycosylation of unprotected carbohydrates. The recognition between the carbohydrates part of our GAs and their specific pathogenic lectins has been studied using isothermal titration calorimetry (ITC). The stability to chemical hydrolysis of the *N*-glycosidic bond was also analysed using HPLC.



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Bibliographic references:

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