

## DESIGN AND SYNTHESIS OF SACCHARIDE-BASED MOLECULAR TOOLS TO PROBE OSP AND fOS TRAFFICKING

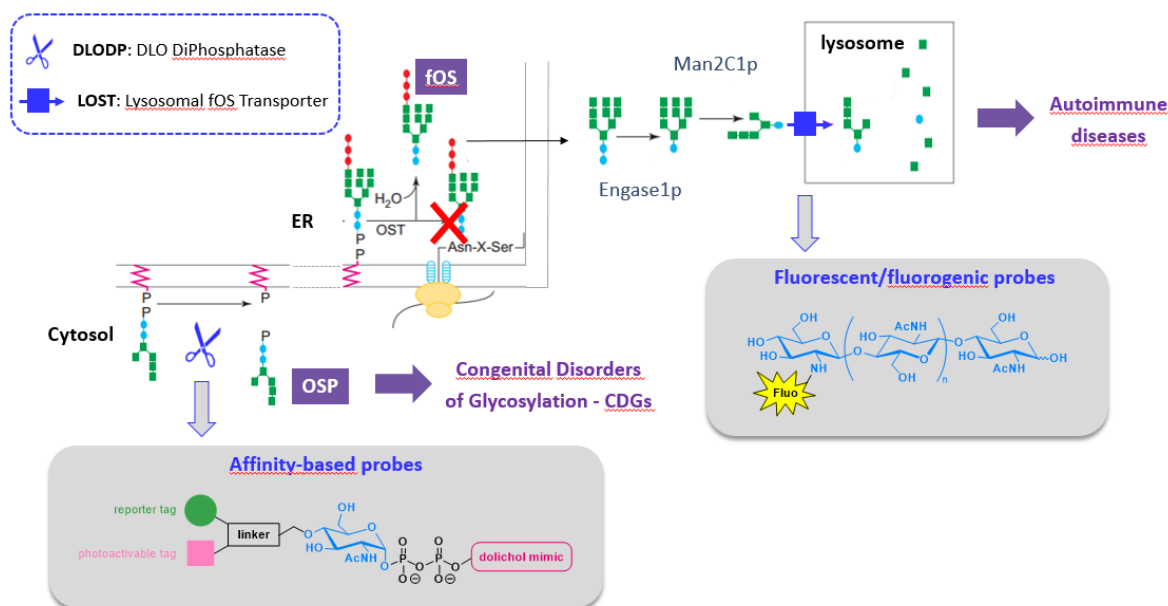
Michaël Bosco<sup>a</sup>, Laia Saltor Núñez<sup>a</sup>, Su-Jin Paik<sup>b</sup>, Asad Rabee<sup>b</sup>, Isabelle Chantret<sup>b</sup>,  
Stéphanie Pradeau<sup>c</sup>, Sébastien Fort<sup>c</sup>, Stuart E. H. Moore<sup>b</sup>, Patricia Busca<sup>a</sup>,  
Christine Gravier-Pelletier<sup>a</sup>

<sup>a</sup> Université Paris Cité, LCBPT - UMR 8601 CNRS, Paris, France  
patricia.busca@u-paris.fr

<sup>b</sup> Université Paris Cité, CRI - INSERM U1149, Paris, France

<sup>c</sup> Université Grenoble Alpes, CERMAV - UPR 5301 CNRS, Grenoble, France

Phosphorylated oligosaccharides (OSP) and free oligosaccharides (fOS) are associated with severe pathologies of two different types: Congenital Disorders of Glycosylation (CDGs) [1] and autoimmune diseases [2]. These OSP and fOS are generated during protein N-glycosylation and two key players are involved in their production and/or regulation: Dolichol-Linked Oligosaccharide Diphosphatase (DLODP) [3], and Lysosomal Oligosaccharide Transporter (LOST) [4] (see figure key). Although these activities are partially characterized at the biochemical level, their corresponding proteins/genes are still unknown. In order to study, isolate and identify DLODP and LOST associated proteins, several probes are needed.



In this communication, we will describe our recent results regarding the design, synthesis and biological activity of these saccharide-based molecular tools.

### References:

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3. a) *J. Lipid Res.* **2016**, 57, 1029 & 1477, b) *Molecules* **2019**, 24, 2135.
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