

Developing synthetic and analytical tools to study glycans on binding preferences

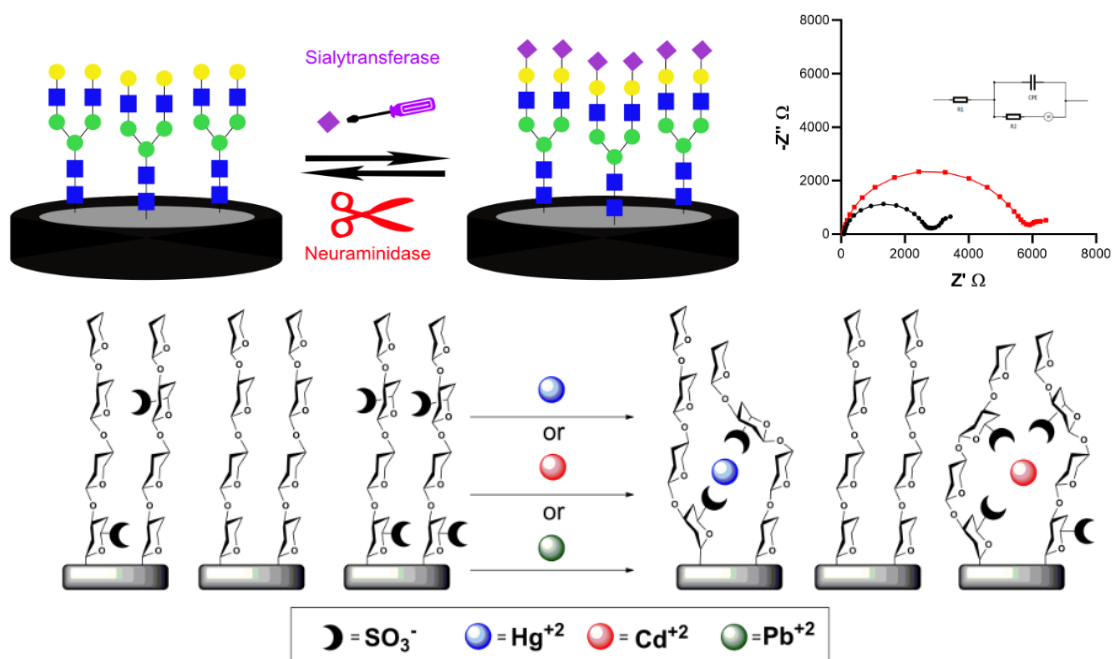
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Modifications of complex glycans govern their binding preferences and biological activities. Evaluating the effect of sulfation and sialylation on glycans interaction on binding preferences is not easy for two main reasons. First, obtaining libraries of modified complex glycans in sufficient quantity is hampered by synthetic hurdles. Second, many of the interactions are too weak to quantify using standard bioanalytical tools.

I will present our advances towards the development of new methods to synthesize complex glycan and present our approach for expediting their preparation. I will show that label-free electrochemical tools provide insight to the biology of those unique modified glycans. I will highlight how the combination between new synthetic methods and analytical approaches enable us to study the effect of glycan modifications on interaction preferences with metal ions, proteins and metal-ion mediated protein interactions.



Optimized and accelerated Oligosaccharide synthesis enabled the development of electrochemical tools to study glycan interactions

Bibliographic references:

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