PROTEO
FONCTION | STRUCTURE INGÉNIERIE DES PROTÉINES

UNIVERSITÉ LAVAL
Département de chimie

CONFÉRENCE

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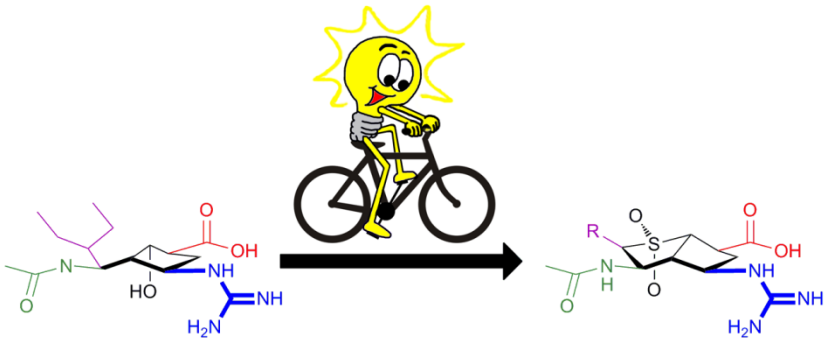
salle 2830 Pavillon Alexandre-Vachon (VCH-2830)
Université Laval

Using Molecular Rigidity to Better Control Protein Function: a Case Study in Neuraminidase Inhibition

Rapid mutation of the influenza virus through genetic mixing raises the prospect of new strains that are both highly transmissible and highly lethal, and which have the capability to evade both immunization strategies (*via* mutation of hemagglutinin) and current therapies (*via* mutation of neuraminidase). The ability of influenza to adapt to existing therapeutics points to a need for the creation of novel drug scaffolds that can be used for next-generation neuraminidase inhibitors. Moreover, many recent reports suggest that selective inhibition of *human* neuraminidases could lead to novel treatments for several types of cancer. Here we report a synthetic strategy for a new class of rigid, bicyclic inhibitor scaffolds with application to the development of novel neuraminidase inhibitors. Small-molecule X-ray studies and enzyme-inhibition data confirm that our newly designed scaffolds have the required structural properties to pre-position pendant functional groups into the correct orientations for binding the enzyme active site.



Professeur hôte: Jean-François Paquin

Cordiale bienvenue à toutes et à tous!

Apportez votre tasse!