Séminaire

Mardi 9 janvier 2024 à 10h30

Amphithéâtre Henri Benoît

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Peptide Self-Assembly for Biomaterial Design

Supramolecular materials emerge from non-covalent interactions between molecular building blocks that self-assemble into well-organized functional structures. In biomedicine, for example, there is significant interest in exploiting self-assembly to mimic the extracellular matrix (ECM) for cell-culture applications. Those self-assemblies can form under specific conditions hydrogels, which are 3D networks composed mainly of water, which possess unique network characteristics and stimuli responsiveness, rendering them highly advantageous in the field of biomaterials. Depending on the stimulus and peptide sequence, the resulting hydrogel properties can differ greatly from catalytic activity, and self-repairing network to antibacterial activity and bone tissue engineering.

In this seminar, I will give a quick overview of my experiences in the field and the project I will develop from the 1st of February 2024 as a chargé de recherche CNRS at Institut Charles Sadron, on peptide self-assembly for biomaterial design, such as bone implants, and antibacterial hydrogels and how peptide sequence control those resulting properties.

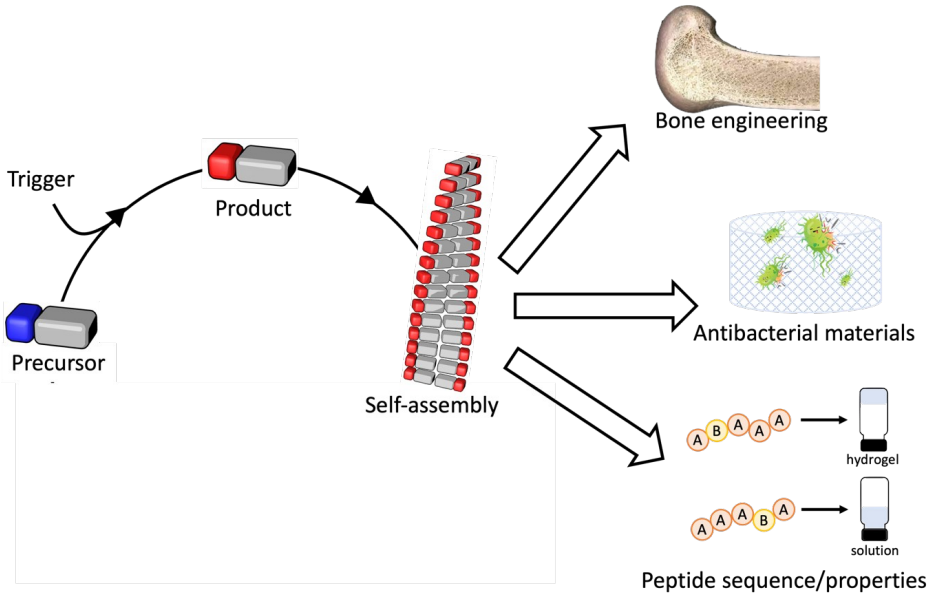

Figure 1: Peptide self-assembly that can lead to different application depending of the peptide sequence and its trigger.

Les personnes souhaitant rencontrer Jennifer Rodon Fores sont priées de prendre contact avec elle.