



Hiver 2014  
**Conférence**  
au Département de chimie  
présentée conjointement  
avec PROTEO

CONFÉRENCIER

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DATE

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TITRE

## **Branched Amphiphilic Peptide Capsules : A New Biomaterial**

RÉSUMÉ

Branched Amphiphilic Peptide Capsules (BAPCs) are peptide nano-spheres comprised of equimolar proportions of two branched peptide sequences bis(FLIVI)-K-KKKK and bis(FLIVIGSII)-K-KKKK that self-assemble to form bilayer delimited capsules. In two recent publications we described the lipid analogous characteristics of our BAPCs and examined their initial assembly, mode of fusion, solute encapsulation, resizing and delineated their capability to be maintained at a specific size by storing them at 4°C. In this talk I will discuss the origin, formation, stability, size limitations of encapsulation, cellular localization, retention and, bio-distribution of the BAPCs in vivo. The ability of our constructs to encapsulate a variety of solutes without any apparent leakage and their persistence in the perinuclear region of the cell for extended periods of time, coupled with their ease of preparation and potential targeting, makes them attractive as biocompatible delivery vehicles.

LÉGENDE DES IMAGES :

**Snapshots of initial and equilibrated structures of capsule coarse-grained model.** The C-terminus group is represented by a yellow sphere; outside peptides are shown as light grey lines, with inside shown as cyan lines. The outside diameter of capsule is ~22 nm.

La conférence aura lieu à 11h au VCH-3850 du Pav. A.-Vachon  
Cordiale invitation à toutes et à tous !

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