

Séminaire LIONS



Jeudi 9 octobre 2014 à 11h00, bât. 127, salle 26

Functional amyloid: How to deal with toxic species in a safe manner.

Guillaume van Niel

UMR 144/CNRS, Curie Institute, Paris

Amyloids are protein aggregates that are broadly associated with pathological situations such as Alzheimer's disease. It exists, however, several examples of amyloid called "functional amyloids" that have biological activities. While pathological amyloids can be potentially toxic, functional amyloids are produced in a nontoxic and regulated manner. We use pigment cells as a cellular model to better understand this "safe" pathway. Pigment cells produce amyloid structures that serve as structural scaffold during melanin pigment synthesis. Our studies, mainly based on cell biology approaches, reveal how cleavage and intracellular sorting steps tightly regulate amyloidogenesis. This model opens new avenues to explore pathological amyloidogenesis as it displays increasing analogies with the molecular mechanisms involved in amyloidogenesis during Alzheimer's disease.

<http://umr144.curie.fr/fr/profile/guillaume-van-niel-00520>