

Séminaire de Chimie Autour des Nanosciences

CHRISTELLE HUREAU

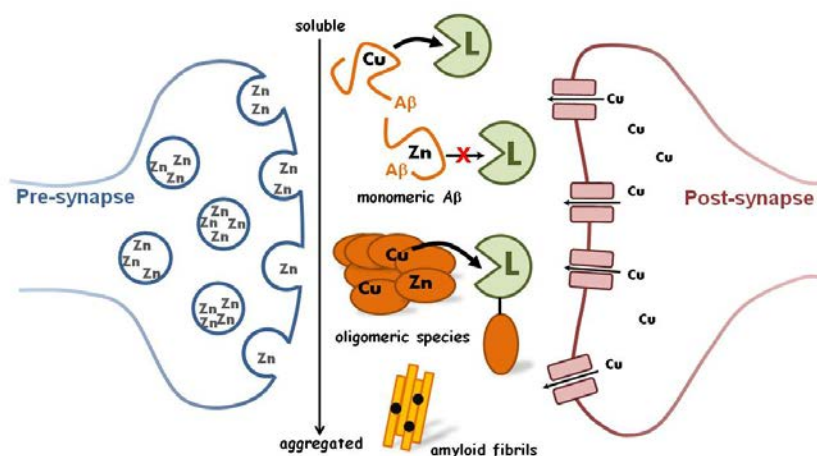
Laboratoire du Chimie de Coordination du CNRS, Toulouse, France

Donnera une conférence sur le thème :

COPPER, ZINC AND AMYLOID- β PEPTIDES IN ALZHEIMER'S DISEASE. FROM FUNDAMENTAL INVESTIGATIONS TO MORE APPLIED APPROACHES.

Fundamental: The aetiology of Alzheimer's disease is linked to the aggregation of the amyloid- β peptide, a central event of the so-called amyloid cascade. The intervention of Cu and Zn ions in the amyloid cascade is widely acknowledged. In the Biological Chemistry Group in Toulouse, we have recently studied how such metallic ions are bound to the A β peptide, which is a prerequisite to understand how they can interfere in A β aggregation as well as in ROS production, the second important event in the aetiology of the disease. In particular, we have shown how the nature of the metallic ion and of the peptide sequences impact the coordination site.

Applied: Cu ions can (i) form oligomeric aggregates considered as the most toxic species of the aggregation process and (ii) be directly involved in Reactive Oxygen Species (ROS) production due to its redox ability. Because these two effects are deleterious, Cu appears to be a target of choice for therapeutic approaches based on chelation. Recent results on Cu(II) and Cu(I) removal and resulting impact on ROS production and A β aggregation will be described as well as the interplay of Zn in such processes.



LE VENDREDI 29 Mai À 11H00
Bat. Lavoisier, salle 774, 15 rue Jean de Baïf 75013 Paris

Contacts : Claire Fave et Vincent Noël,
Tél : +33 (0)1 57 27 72 26/72 08