



SEMINAIRE SPAM / LFP



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Bologna, Italy

Le Lundi 14 Décembre 2009 à 11h30

Bâtiment 522 - Salle 137

« **Drug-biomolecule complex: a "concerted" approach for understanding interactions and (photo)chemical behavior** »

Non covalent interaction of small ligands with large biomolecules is at the basis of most fundamental processes in cell biology and many pharmacological and biotechnological applications. Understanding the interplay between the two molecular partners and the possible chemical consequences requires the characterization of the complexes as individual species and, in particular, the determination of their structure. In the presence of ligands with photoactive chromophores this information is a prerequisite, for example, for the control of drug phototoxicity and development of new photoactivated therapies.

We have recently developed an approach aimed at a structurally based understanding of the mechanism of light induced processes in biomolecular complexes, based on the combined application of a variety of experimental techniques (spectroscopic, photochemical, analytical, microcalorimetric) and methods of computational modelling. The interaction of selected derivatives of important drug families (arylpropionic acids, quinolones, anthracyclines, chalcones, porphyrin-like derivatives) with albumin and telomeric DNA will be described. Reliable structures for the protein complexes in solution have been obtained by the combination of circular dichroism and quantum mechanical estimation of rotational strengths. Control of photofragmentation, photobinding, photoinduced electron transfer and energy transfer processes by the biomolecular matrix will be illustrated.

Formalités d'entrée :

Visiteur U.E. : Se faire connaître au moins 48 heures à l'avance pour l'établissement de votre autorisation d'entrée sur le Centre de Saclay.

Visiteur hors U.E. : Se faire connaître au moins 4 jours à l'avance pour les formalités d'entrée et se faire accompagner par un agent CEA.

Sans autorisation, vous ne pourrez entrer sur le Centre de Saclay. Tél. : 33.1.69.08.30.95 - Fax : 33. 1.69.08.76.39 - email : caroline.lebe@cea.fr ou veronique.gerecny@cea.fr

Dans TOUS LES CAS, se munir d'une pièce d'identité (passeport et carte d'identité - pas de permis de conduire)