Instituto Universitario de Investigación
Biocomputación y Física de Sistemas Complejos
Universidad Zaragoza
1542

BIFI-Talks 2021

Dr. Juan Luís Asensio

(Instituto de Química Orgánica General, CSIC, Madrid)

Glycochemistry and Molecular Recognition: Rational and Combinatorial Approaches

Carbohydrates participate in a large variety of molecular recognition processes of biological relevance, involving both proteins receptors, enzymes and nucleic acid fragments. Understanding how these later bio-molecules interact with glycosides represents a fundamental issue in chemical biology with far reaching implications in fundamental biology, biotechnology or drug design. On the other hand, the acknowledgment of the relevance of glycoconjugates in biology has run parallel to the development of new chemical methods for glycosidic bond formation. Thus, the last few decades have witnessed a burgeoning progress in the area of glycosyl donor engineering, with a more recent focus on the understanding of glycosylation mechanisms. As a part of an ongoing project focused on glycochemisty we have analyzed different aspects of the association of glycosides to both nulcleic acids and proteins. In addition, key mechanistic features of glycosylation reactions, both in enzymatic nd chemical contexts, have been dissected. From a methodological persepective our approach is pluridisciplinar and includes NMR, molecular modeling, organic synthesis, and a variety of chemical strategies. The obtained results, together with their implications for the design and synthesis of improved carbohydrate-based ligands, will be discussed.

FRIDAY, 3rd DECEMBER 2021, 12:30

ONLINE: **ZOOM Seminar**

Link https://us02web.zoom.us/j/86384158190