



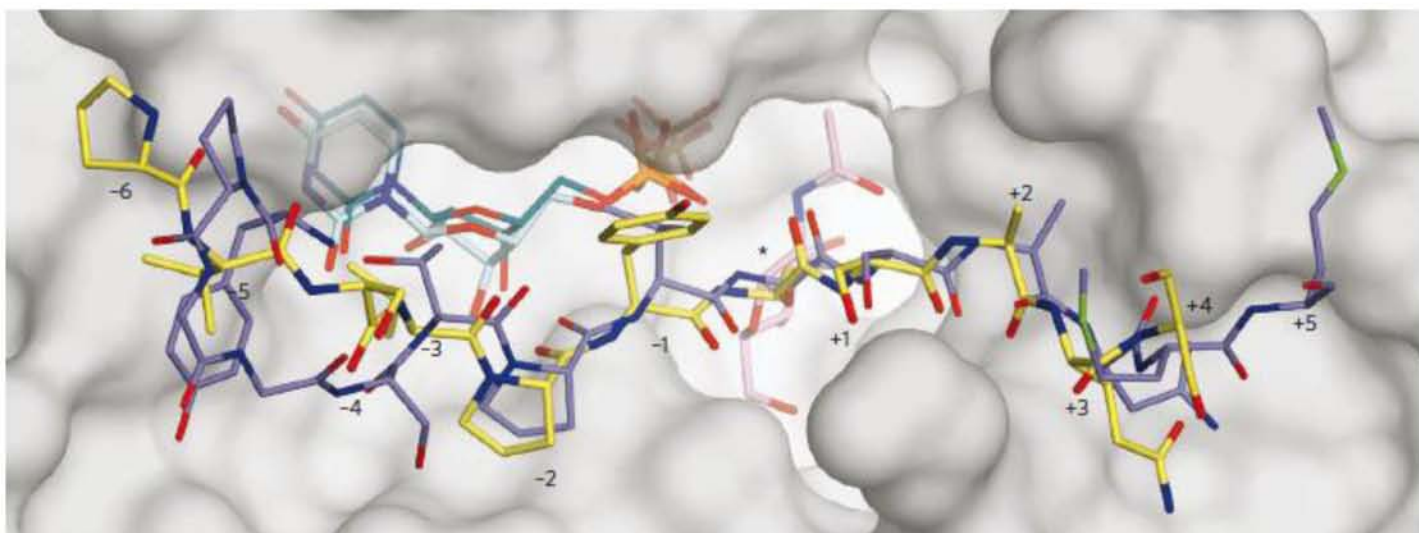
Instituto Universitario de Investigación  
**Biocomputación y Física  
de Sistemas Complejos**  
Universidad Zaragoza



Miércoles 5 de junio, 12:00 horas  
Sala de Grados, Edif. Torres Quevedo.  
Campus Río Ebro

# SEMINARIO

## O-GlcNAc signaling



by Prof Daan van Aalten



Professor van Aalten leads a group of 25 researchers at the Wellcome Trust Biocentre, (School of Life Sciences, University of Dundee, Scotland). In November 2012, Daan joined the MRC Protein Phosphorylation Unit where he investigates the links between the O-GlcNAc posttranslational modification, neuronal function and neurodegenerative disease using a multidisciplinary approach including cell, chemical and structural biology.

His group have determined the structure and reaction mechanism of an O-GlcNAcase, the enzyme that removes the O-GlcNAc modification; and a complex with the diabetogenic compound PUGNAc. They have developed pM inhibitors against this enzyme. With respect to the human O-GlcNAc transferase, they have described very recently a Michaelis complex of this enzyme together with a non hydrolyzable sugar nucleotide and a peptide analogue uncovering the catalytic mechanism of this fascinating enzyme.