



Francisco Corzana

University of La Rioja

Artificial Glycopeptides for Cancer Vaccines and Diagnostics

We design and synthesize artificial glycopeptides that can trigger immune responses against cancer cells and act as biomarkers for early detection. Our approach relies on the combination of NMR, molecular dynamics simulations, and X-ray crystallography to fine-tune the antigenicity and stability of the glycopeptides. In this talk, I will show you our two research lines: one on cancer vaccines, where we have tested the effectiveness of our glycopeptides in mouse models; and one on diagnostic tools, where we have created two proof-of-concepts for identifying cancer-specific glycoproteins. Our work demonstrates the potential of structure-guided glycopeptides as versatile and powerful tools for cancer immunotherapy and diagnosis.

Short CV:

Dr Corzana is Full Professor of Chemistry at the University of La Rioja, where he heads the Chemical Biology research group on the synthesis and structure of glycopeptides for biomedical applications. He obtained his PhD from the same university in 2001 and spent two postdoctoral positions: one at the University of Copenhagen with Prof. Engelsen (2001-2003), where he studied the conformational behavior of carbohydrates using molecular dynamics simulations, and another one at the Instituto de Química Orgánica General (CSIC) in Madrid with Prof. Jiménez-Barbero and Dr. Asensio (2003-2005), on aminoglycoside antibiotics.

In 2005, he returned to the University of La Rioja as a “Ramon y Cajal” researcher and was appointed Associate Professor in 2008. His current research focuses on the design and synthesis of glycopeptides that trigger immune responses against cancer cells and can serve as biomarkers for early detection.

CIC bioGUNE

MEMBER OF BASQUE RESEARCH
& TECHNOLOGY ALLIANCE



EXCELENCIA
SEVERO
OCHOA

Friday
February 2
Atrio 800
12.00H



BRTA
BASQUE
RESEARCH &
TECHNOLOGY
ALLIANCE