SCIENTIFIC SEMINAR



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Antibody Glycosylation: A Crucial Factor in Immune Function and Pathology

Antibodies, key glycoproteins of the adaptive immune system, play a pivotal role in identifying and neutralizing bacteria, viruses, or tumor cells. Antibody glycosylation significantly influences their structure, effector functions, and immunogenicity. Bacterial pathogens have evolved intricate mechanisms to evade the human immune system, including the production of enzymes that modify antibody glycosylation. Our research explores the molecular mechanisms by which these bacterial enzymes specifically modify antibody glycosylation, using techniques in structural biology, molecular biophysics, and biochemistry. Our results provide a rational basis from which to engineer novel enzymes with antibody and glycan selectivity for clinical and biotechnological applications.

CIC bio GUNE MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

ikerbasque Basque Foundation for Science Thursday July 11 <u>Atrio 800</u> <u>12.00H</u>

