

Glycobiology World Congress

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What is Glycobiology

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Glycobiology is the study of the structure, function and biology of carbohydrates, also called glycans, which are widely distributed in nature. It is a small but rapidly growing field in biology, with relevance to biomedicine, biotechnology and basic research. Proteomics, the systematic study of proteins in biological systems, has expanded the knowledge of protein expression, modification, interaction and function. However, in eukaryotic cells the majority of proteins are posttranslationally modified. A common post-translational modification, essential for cell viability, is the attachment of glycans. Oligosaccharides are covalently bonded to proteins via either N-glycosidic linkage between N-Acetylglucosamine (GlcNAc) and an asparagine residue on the protein, or an O-glycosidic linkage between N-Acetylgalactosamine (GalNAc) and the hydroxyl group of serine or threonine.

One of the many functions of glycans is facilitation of intercellular interactions. Glycosylation defines the adhesive properties of glycoconjugates and it is largely through glycan-protein interactions that cell-cell and cell-pathogen contacts occur, a fact that accentuates the importance of glycobiology. Glycomics, the study of glycan expression in biological systems, relies on effective enzymatic and analytical techniques for correlation of glycan structure with function.

Biography

Agwuncha Chidebelu Obinna has completed his Bsc Microbiology and brewing at the age of 22 years from Enugu State University of science and technology Enugu state Nigeria. He is the director of Icelandkoshertable water factory, and kp beverages Limited Ogidi.

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