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GLYcoPROFILE: Insight into glycan signature

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Glycosylation is the main post-translational modification which plays a wide range of activities in living organisms which, for a part, result from the interaction of glycan motifs with specialized carbohydrates recognition receptors. Those glycobiological interactions drive the key steps of life during the normal or the pathological states through the expression of specific glycans ("glycobiomarkers") which allow modifications of their recognition by glycans receptors. Since the beginning of the 21st century, lectin array technology is increasingly used to generate relevant information related to glycan motifs, accessibility and a number of other valuable insights of molecules or cells. GLYcoDiag has developed a technology platform called GLYcoPROFILE® intended for the determination of interaction profiles with lectins allowing identifying "glycan signatures" on the surface of molecules or cells. The study of the structures and accessibilities of glycan motifs represent a strategy aimed for the discovery and characterization of new glycoproteins and can find a broad range of applications in the field of glycoproteins production and vaccine development. Expression of therapeutic recombinant molecules by cells induces glycan signatures that can be used to select a specific clone (lectin-aided capture) and target a productive clone during recombinant protein production process. Furthermore, each glycoprotein not only shows a unique glycan signature allowing discrimination between original and biosimilar molecules, but also optimization (biobetter). Finally, GLYcoPROFILE® technology can be applied to the research and identification of immunogenic glycans and biomarkers intended for research and diagnostics.

Biography

Ludovic Landemarre, after a PhD in Immunoanalysis and Glycobiology in 1996, spent nine years as Head of Laboratory, then Scientific and Technical Director in a subsidiary of Stago Group. During this time, he launched a new customized antibodies services department and lead R&D projects for diagnostic and vaccination purposes. In 2005, he founded GLYcoDiag as a research company specializing in glycosciences. More than 10 years after, GLYcoDiag is one of the world's few companies focused on the study of the glycobiological interactions through its own technological platform of glycoprofiling.

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