

Special issue: Glycosciences and Development—Editorial

Philippe Delannoy

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This special issue of Glycoconjugate Journal on *Glycosciences & Development* is an extension of the EMBO Workshop that we have organized in Lille, France; in December 2007 (reports of this meeting have been published in *EMBO Reports* 2008, **9**: 617–622 and in the *Journal Development* 2008, **135**: 1389–1393). This meeting was held in the picturesque, contemplative environment of “Les Minimes”, a converted seventeenth century Flemish convent. A cross-section of researchers, both confirmed “glycomaniacs” and those yet to join, discussed and debated recent advances in Glycosciences, providing inspiration and support for many younger scientists who enjoyed their first international meeting.

This meeting was unique in both the subject area and the diverse interests of the participants. Developmental biology is presently an area of intense interest and research activity, in which glycans have been recognized as key players because of their wide involvement in embryogenesis, development and evolution. Indeed, specific carbohydrate structures appear in specific spatial and temporal patterns throughout development and play essential functions in cellular communication. The three main topics of this EMBO meeting dealt with recent technological advances made in Glycosciences during early embryogenesis and embryo development, the role

of glycosylation in development and differentiation, and the significance of glycosylation in evolutionary biology, including comparative analyses of glycosylation in different animal species and the possible implication of changes in glycosylation patterns. The different lectures highlighted many of key biologic processes implying glycans such as cell adhesion, molecular trafficking, receptor activation, signal transduction ...

The selection of manuscripts of this special issue illustrates these three main topics that were developed during this EMBO meeting. They particularly underline the increasing role of animal models used in developmental studies (e.g., mice, *Drosophila melanogaster*, *Caenorhabditis elegans* or Zebrafish) to elucidate the roles of glycosylation in these processes and highlight the fine tuning of glyco-epitopes in development and evolution. We are very indebted to the authors, who have accepted to submit either a mini-review or a research article to this special issue. All of them have participated to the EMBO Workshop and have spontaneously accepted to contribute to this issue.

We really hope that this issue will contribute to emphasize the crucial role that glycosylation plays in Development and Evolution and will stimulate the research in this particular area.

P. Delannoy (✉)
Structural and Functional Glycobiology Unit, UMR CNRS 8576,
University of Sciences and Technologies of Lille,
59655 Villeneuve d’Ascq, France
e-mail: Phillippe.Delannoy@univ-lille1.fr