# Glyco Cyber Space

## Description

[traveler_s_guide_to_cyber_space.pdf](traveler_s_guide_to_cyber_space.pdf)

Glycoscience is a rapidly developing and emerging scientific discipline. Like many other scientific disciplines, glycoscience is adapting to the exciting rise of accessible scientific data, which now impacts research and modifies its practice. The accumulation of information along with the development of enabling technologies has laid the foundation of a rich computational toolbox tailored for the detection and high-resolution determination of complex glycans. In parallel, a variety of online resources essentially in the form of databases covering glycan and glycoproteins structures have been developed by independent research groups worldwide. At present, more than 150 entries are freely available on the internet yet these often produced independently of one another. With the aim of facilitating glycoscience research, we have clustered these different tools according to their major field of applications. As a result, the following entries can be accessed :

- [Portals. Genome and Glycome](Portals. Genome and Glycome)
- [Representations](Representations)
- [Experimental Results](Experimental Results)
- [Glycans](Glycans)
- [Glycoproteomics](Glycoproteomics)
- [Functional Glycomics](Functional Glycomics)
- [Glycolipids](Glycolipids)
- [CAZYmes](CAZYmes)
- [Polysaccharides](Polysaccharides)

Cross-talk between these computational resources is needed. To illustrate this point, one section of the chapter is devoted to the practical usage of integrative tools to guide the traveler in the navigation, investigation and the quest for correlations between structure and function in glycobiology.

Some fundamental principles of bioinformatics about data handling are presented in three consecutive annexes. These cover [Data Integration](Data Integration), [Data Integration Strategies](Data Integration Strategies) and their [implementation in Bioinformatics](implementation in Bioinformatics).

## Category

1. News