

The Meaning of Glycan Synthesis

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Carbohydrates play important roles in numerous physiological processes. For example, cell migration, recognition, morphogenesis, cancer cell metastasis, and so on. To clarify these phenomena in detail, constant amount of carbohydrates are necessary.

Recent advances in gene engineering have now made it possible to mass-produce extremely useful proteins, but the technology involved is not ideal for the creation of glycoproteins. This is because DNA incorporated by gene recombination, has no direct information about biosynthesis of the carbohydrate chains. Therefore, it is important to create carbohydrate chains artificially.

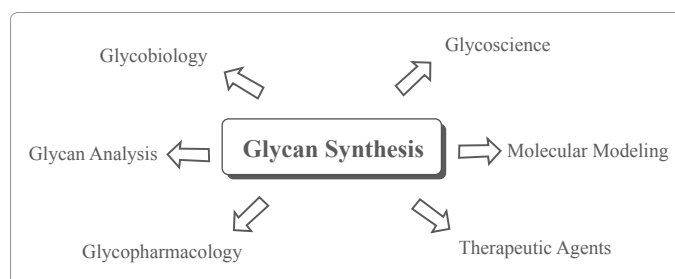
Several technologies have been reported, but these technologies are

only available in specialized laboratories and produce small quantities of carbohydrates.

For glycobiology to advance, widely applicable methods to generate both large and small quantities of carbohydrates are needed.

These methods would accelerate the glycobiology, and produce large quantities of carbohydrates for use, as research reagents or therapeutic drugs.

The Journal of Glycomics & Lipidomics aims at the development of the glycoscience, and can contribute to the development of carbohydrates related biology, biochemistry, pharmacology, and medicine.



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