

CARBOHYDRATES IN PHARMACEUTICAL INDUSTRIES

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Carbohydrates and their derivatives are being employed in pharmaceutical industries in research and in production, be it as small molecules, natural products, or biologicals. Research applications include the use as chiral pool starting materials e.g. to furnish peptide mimetics or chiral scaffolds for the generation of compound libraries. Bioactive carbohydrates are being studied intensely, and some of those or their mimetics¹ have progressed to the market. Specific examples will be discussed.

¹ Wessel, H.P.; Lucas, S.D. *Oligosaccharide mimetics*. In *Glycoscience: Chemistry and Chemical Biology*, Fraser-Reid, B.; Tatsuda, K.; Thiem, J., Eds.; Springer Verlag: Heidelberg **2008**, Part 9, 2079-2112; (b) Wessel, H.P. Saccharide-peptide hybrids. In *Oligosaccharides in Chemistry and Biology: A Comprehensive Handbook. Synthesis of Oligosaccharides, Glycoconjugates and Glycomimetics, Part II: Synthesis of Oligosaccharide Mimetics*; Ernst, B., Hart, G., Sinay, P., Eds.; Wiley/VCH: Weinheim, **2000**; Vol. I, 565–586.