Errata to the second edition of *Essentials of Glycobiology* are indicated in the following pages. This pdf file may be freely distributed and/or printed without any limitations. —The Editors

Essentials of Glycobiology

SECOND EDITION

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From Chapter 2
Page 25

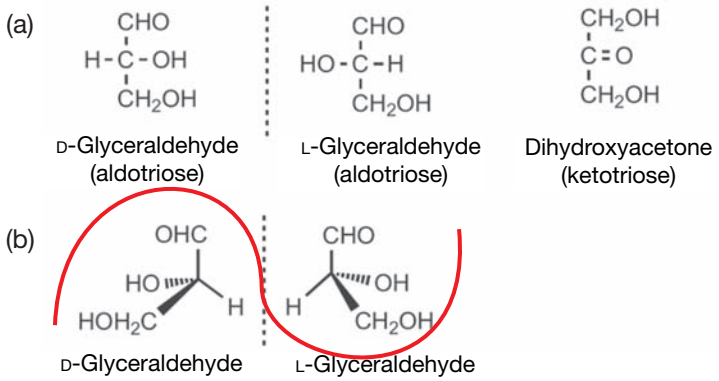

FIGURE 2.1. (*a*) Structures of glyceraldehyde and dihydroxyacetone in Fischer projection; (*b*) D- and L-glyceraldehyde. The chiral nature of the central carbon in glyceraldehyde gives rise to two possible configurations of the molecule, termed D and L.

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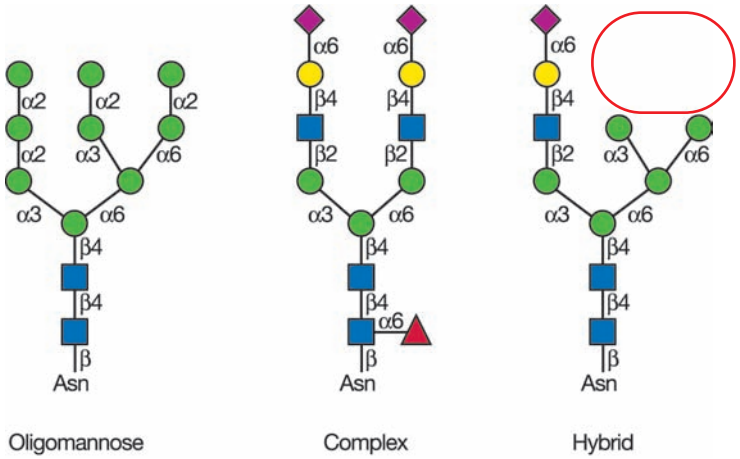

FIGURE 8.1. Types of N-glycans. N-glycans added to protein at Asn-X-Ser/Thr sequons are of three general types in a mature glycoprotein: oligomannose, complex, and hybrid. Each N-glycan contains the common core $Man_3GlcNAc_2Asn$.

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In contrast to poly-*N*-acetyllactosamine, which is a relatively common structure, tandem repeats of LacdiNAc and type-1 sequences are uncommon, although poly-*N*-acetyllactosamine sequences are sometimes terminated with a type-1 unit. The structures and biosynthesis of **poly-*N*-acetyllactosamine** are discussed further in Chapter 13.

From Chapter 14
Page 217

Kelm S. and Schauer R. 1997. Sialic acids in molecular and cellular interactions. *Int. Rev. Cytol.* **175:** 137–240.

Schauer R. and Kamerling J.P. 1997. Chemistry, biochemistry and biology of sialic acids. In *Glycoproteins II* (ed. J. Montreuil, J.F.G. Vliegenthart, and H. Schachter). pp. 243–402. Elsevier, Amsterdam.

Traving C. and Schauer R. 1998. Structure, function and metabolism of sialic acids. *Cell. Mol. Life Sci.* **54:** 1330–1349.

Angata T. and Varki A. 2002. Chemical diversity in the sialic acids and related α-keto acids: An evolutionary perspective. *Chem. Rev.* **102:** 439–470.

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TABLE 46.4. *Dominant gain-of-function mutants expressing a new activity*

Mutant	Biochemical change	Glycosylation phenotype
LEC10 (CHO)	GlcNAcT-III expressed	complex N-glycans have the bisecting *N*-acetylglucosamine residue
LEC11 (CHO)	α3FucT-VI expressed	fucose on poly-*N*-acetyllactosamine generates Le^X SLe^X and VIM-2 determinants
LEC12 (CHO)	α3FucT-IX expressed	fucose on poly-*N*-acetyllactosamine generates Le^X and VIM-2 determinants
LEC14 (CHO)	GlcNAcT-VII expressed	N-glycan core has an extra *N*-acetylglucosamine on β1-4-linked Man
LEC18 (CHO)	GlcNAcT-VIII expressed	N-glycan core has an extra *N*-acetylglucosamine on β1-4GlcNAc

Note on nomenclature: Uppercase is used for gain-of-function mutants (e.g., LEC10); lowercase is used for loss-of-function mutants (e.g., Lec1).

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arising from cleavage on the reducing side of each HexNAc residue (usually referred to as A-type ions) whose masses define important structural features of N- and O-glycans, including the types of capping sugars and the presence or absence of **poly-*N*-acetyllactosamine** sequences. In MS/MS experiments, additional fragment ions are produced by cleavage on either side of susceptible glycosidic linkages.

From Glossary
Page 736

Keratan sulfate A **poly-*N*-acetyllactosamine** [Galβ1-4GlcNAcβ1-3]$_n$ with sulfate esters at C-6 of *N*-acetylglucosamine and galactose residues, found as a side chain of a keratan sulfate proteoglycan.

Mannan Mannose-rich polysaccha
bacteria, fungi, and plants.

Mannose-6-phosphate receptors *See*