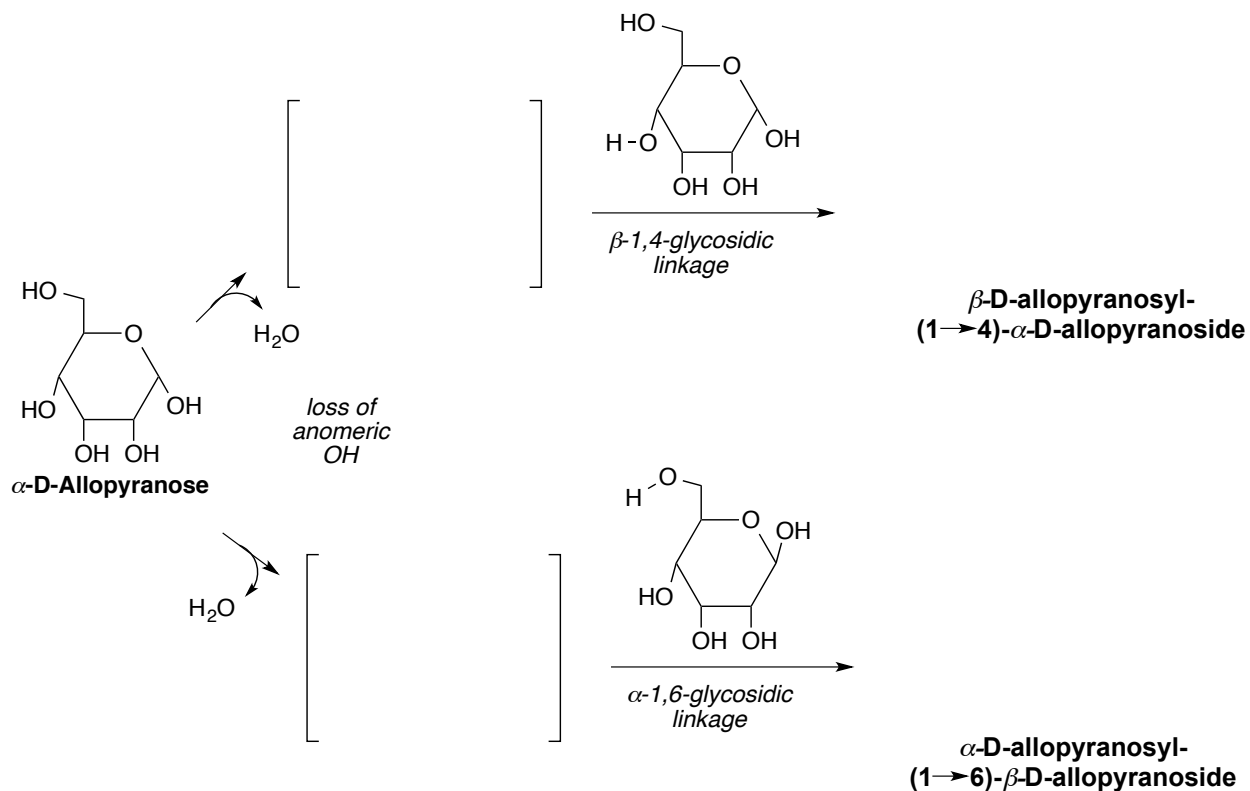


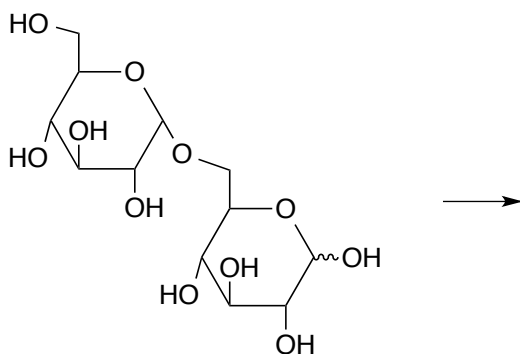
LECTURE OUTLINE

- Disaccharides (McMurry 25.8): Formation & Hydrolysis
- Complex Carbohydrates (McMurry 25.9)
 - Digestion and Hydrolysis

Formation of Disaccharides (Glycosidic Linkage)



Hydrolysis of Disaccharides

**Isomaltose**

One of the many products of
caramelization of glucose

Digestion – Hydrolysis of Complex Carbohydrates (Starch)

Amylose (20% of starch)

Amylopectin (80% of starch)

Carbon Cycle:

ANIMALS

PLANTS

When you eat...

STARCH →

Random Hydrolysis



Intestinal Hydrolysis

→ **Maltose, Maltotriose, limit dextrins**

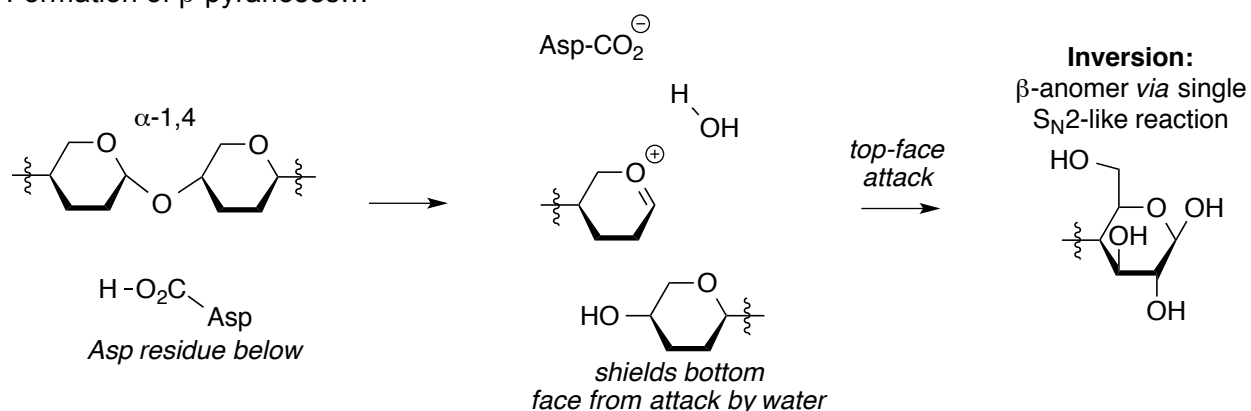
Glycosidases

glucose in bloodstream ←

Glucose

Glycosidase-Catalyzed Hydrolysis

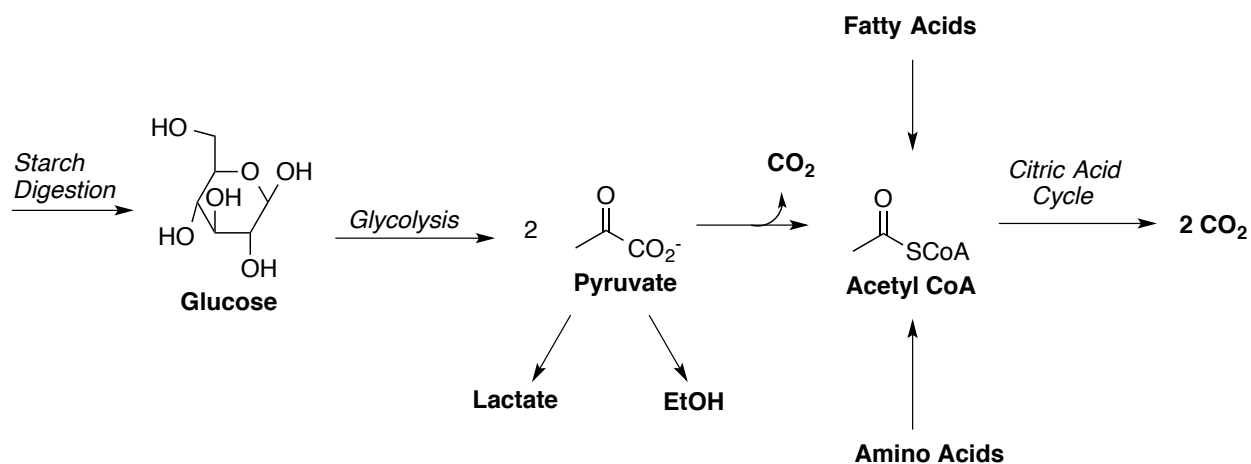
Formation of β -pyranoses...



Formation of α -pyranoses...



Metabolism Overview (Big picture)



Next time...

Glycolysis – McMurry 29.5