

Carbohydrates and the Corn-Fed Nation

May 15, 2013

- Classification of carbohydrates (the terms monosaccharide, disaccharide, aldose, ketose, aldohexose, etc.). Mutarotation.
- A review of the basic stereochemical descriptors, with an emphasis on the D/L system.
- Glycoside formation and the anomeric effect.
- Some reactions of sugars (acetylation, etherification, ketalization).

Announcements

Mid-quarter grades have been posted. Students who wish to meet with me and discuss their standing in the course, or any other matters pertaining to 41c, are encouraged to make an appointment.

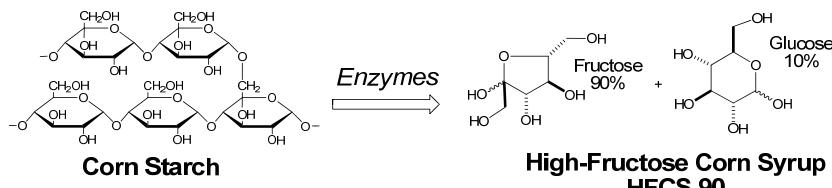
The mid-term supplement has been graded (Average = 10.8/15, Std. Dev. = 2.5, High = 15); the adjusted mid-term exam stats are: Average = 55.4/100, Std. Dev. = 16.4, High = 97. The supplement will be returned after class. The mid-term exam key has been posted.

Quiz 3 is scheduled for Friday, May 17. The focus of this quiz will be Chapter 23 (amines). A review sheet has been posted on the course website. It includes a point allocation projection and the 'think deeply' topic: "**Basicity and Acidity of Amines**" (Loudon, pp 1122-29)

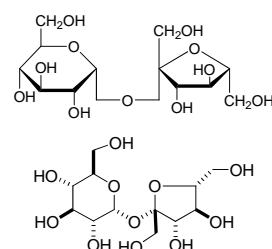
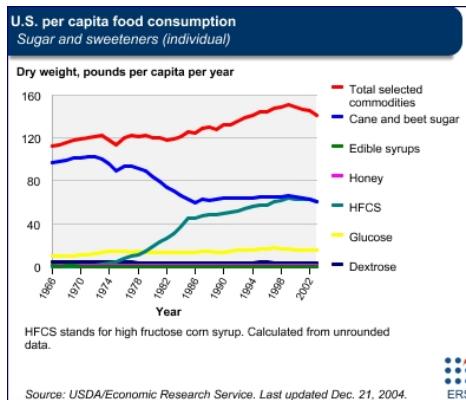
TA Office Hours: Mon 7-8 pm: Rob Craig - 302 Schlinger (x4056); Tue 3-4 pm: Kelly Kim - 302 Schlinger (x4047); Tue 7-8 pm: Corey Reeves - 302 Schlinger (x4056); Wed 5-6 pm: Adam Boynton - 139 Noyes (x3202); Wed 8-9 pm: Ben Suslick (UTA) - Lloyd Lounge; Thu 8-9 pm: Evan Zhao (UTA) - Fleming Lounge; Thu 9-10 pm: Crystal Chu - 202 Schlinger (x3634); Sun 3-4 pm: Chung Wan Lee - 302 Schlinger (x4056).

Suggested Problems for Chapter 24: 24.39(a,c,e,g), 24.40, 24.42, 24.45, 24.46, 24.50, 24.54, 24.57, 24.60.

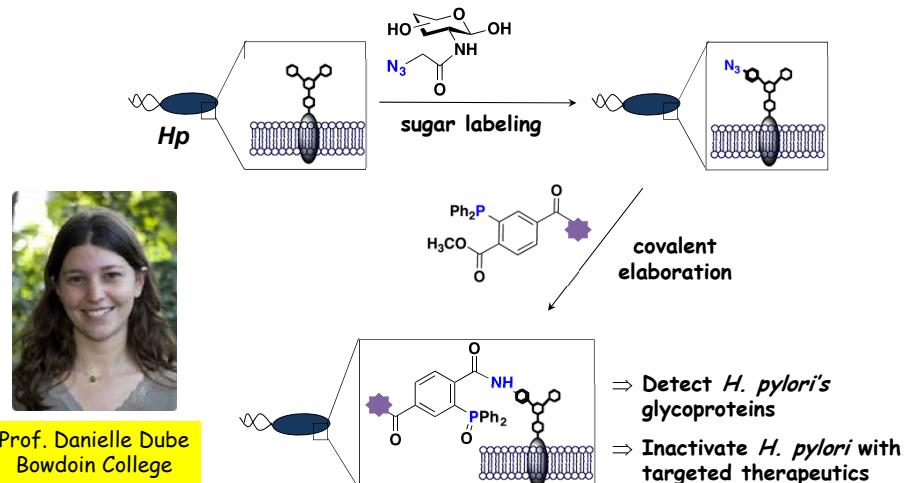
The United States: A Corn-Fed Nation



High-Fructose Corn Syrup
HFCS 90



Dube Lab: using metabolic labeling of sugars to answer fundamental questions in *Helicobacter pylori*'s glycobiology



Koenigs, M. B.; Richardson, E. A.; Dube, D. H. *Mol. BioSyst.* **2009**, 5, 909-912.

GlcNAz was accessed via chemical synthesis:

