

**Session 18 -  
Carbohydrate Synthesis**

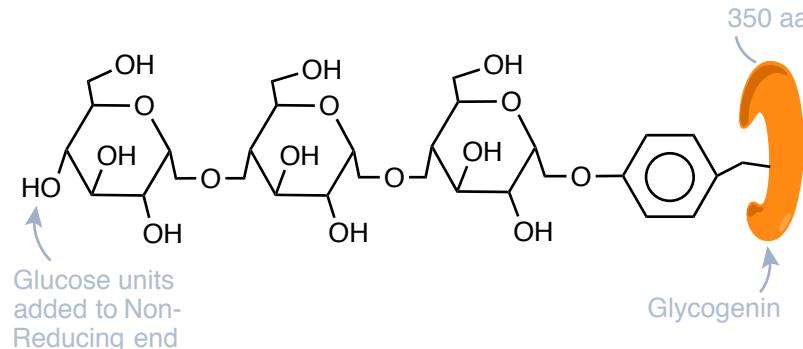
1.) Glycogen synthesis

2.) Gluconeogenesis

A

Recall the structure of glycogen and how it is degraded

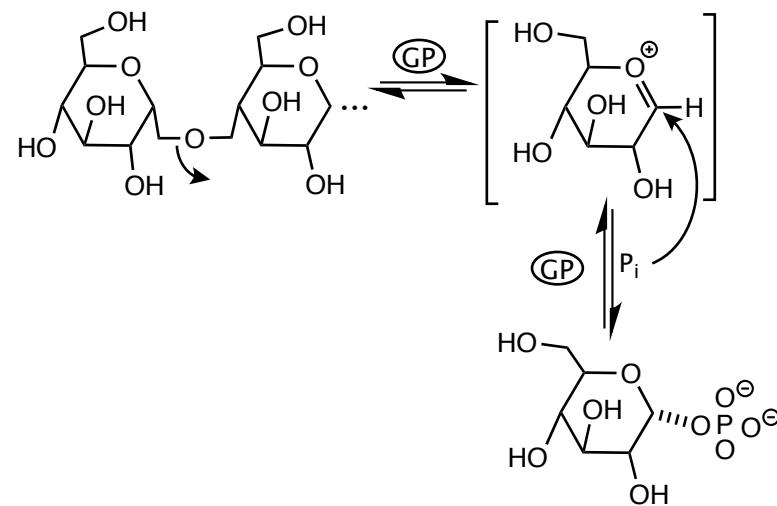
**Glycogen Structure**



Glycogenin = enzyme, adds 1<sup>st</sup> 4-7 molecule of glucose (via UDP-glucose) to its Y-194. Then Glycogen Synthase (GS) takes over.

**Glucogenolysis**

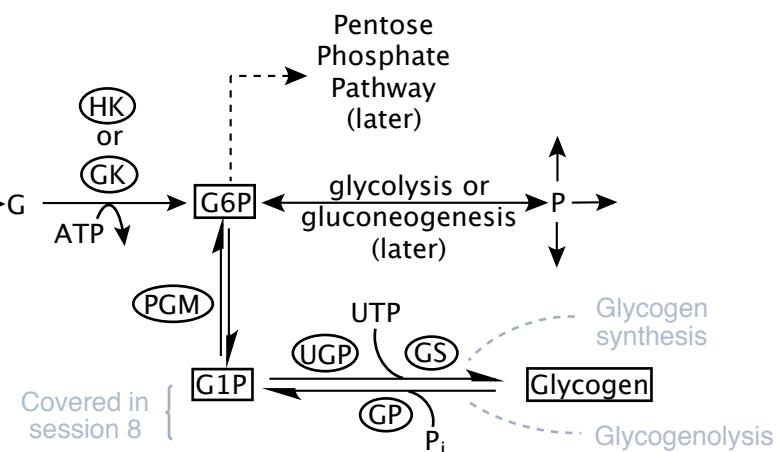
C



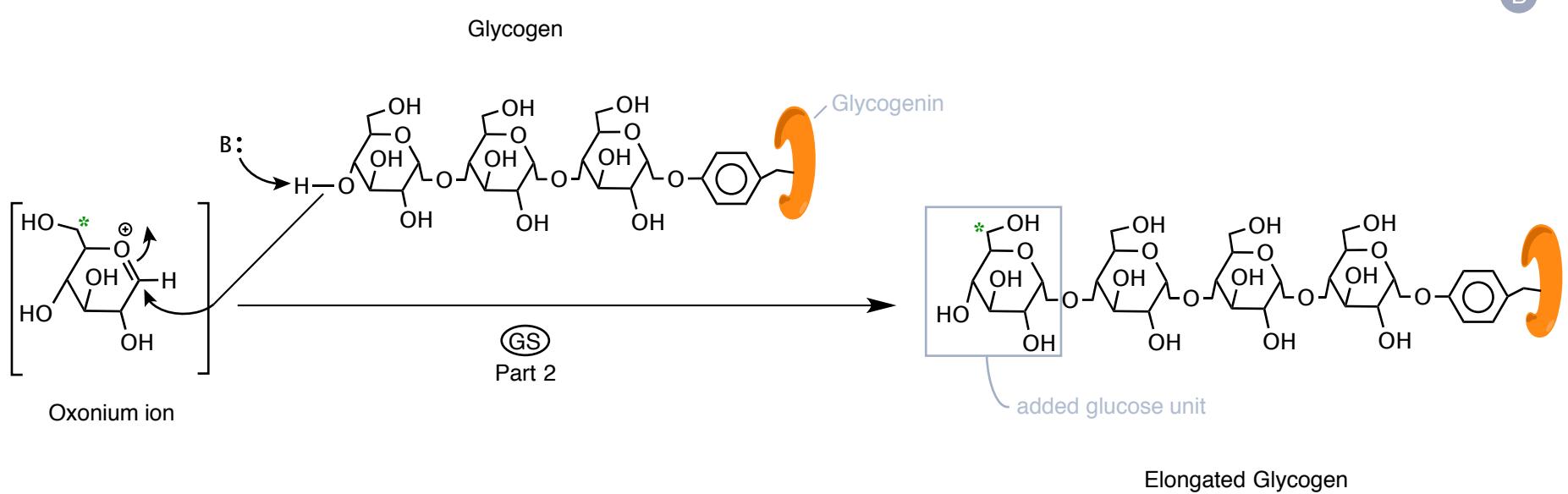
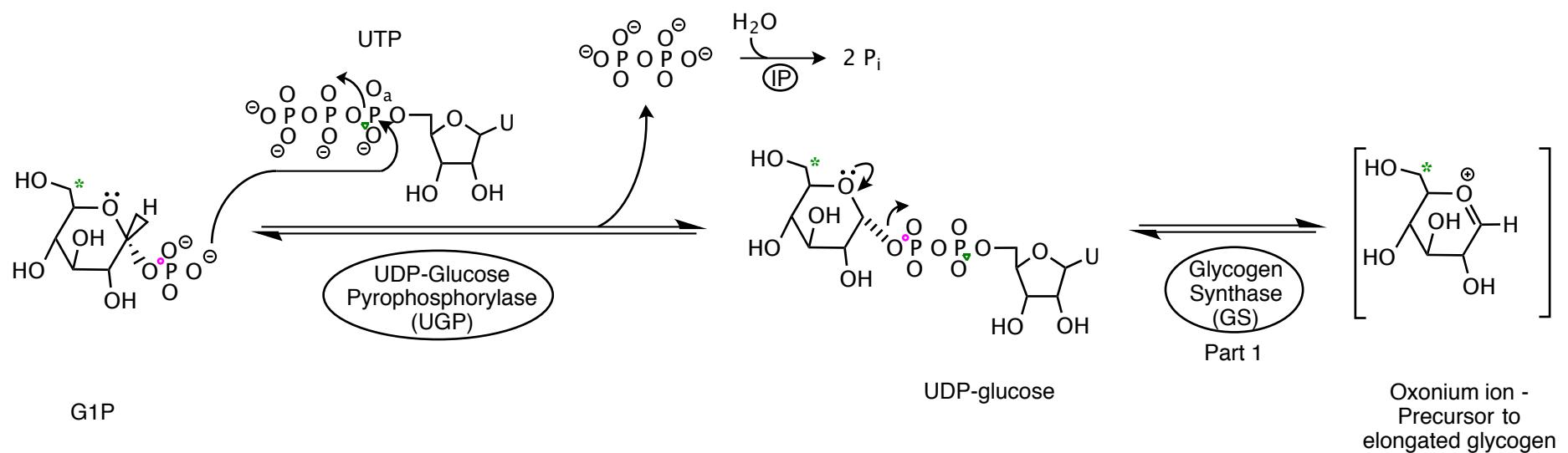
Now, recall how G1P interfaces with the mainstream of metabolism

B

29



## Glycogen Synthesis



MIT OpenCourseWare  
<https://ocw.mit.edu>

5.07SC Biological Chemistry I  
Fall 2013

For information about citing these materials or our Terms of Use, visit: <https://ocw.mit.edu/terms>.