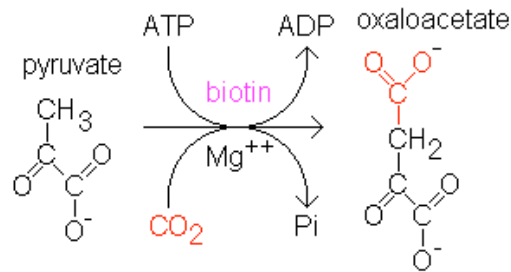
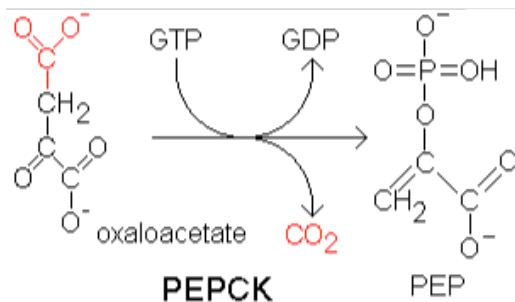


CONCEPT: GLUCONEOGENESIS

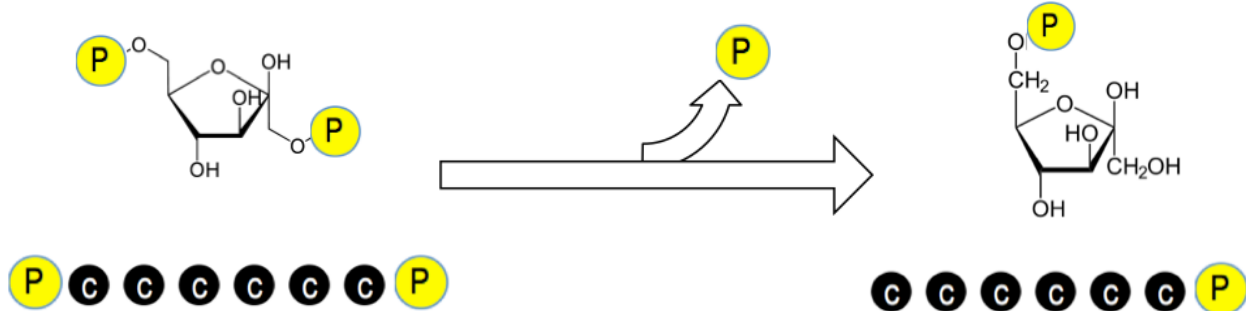
- Cannot reverse pyruvate kinase, must convert pyruvate to oxaloacetate before PEP
- Pyruvate carboxylase – pyruvate + ATP → oxaloacetate + ADP
 - Adds CO₂ to pyruvate



- PEP carboxykinase – oxaloacetate + GTP → PEP + GDP
 - Removes CO₂ and phosphorylates



- Fructose 1,6-bisphosphatase reverse the action of PFK-1 (fructose 1,6-bisphosphate → fructose 6-phosphate)



- Glucose 6-phosphatase reverse the action of hexokinase (glucose 6-phosphate → glucose)
 - Enzyme is only present in liver cells

