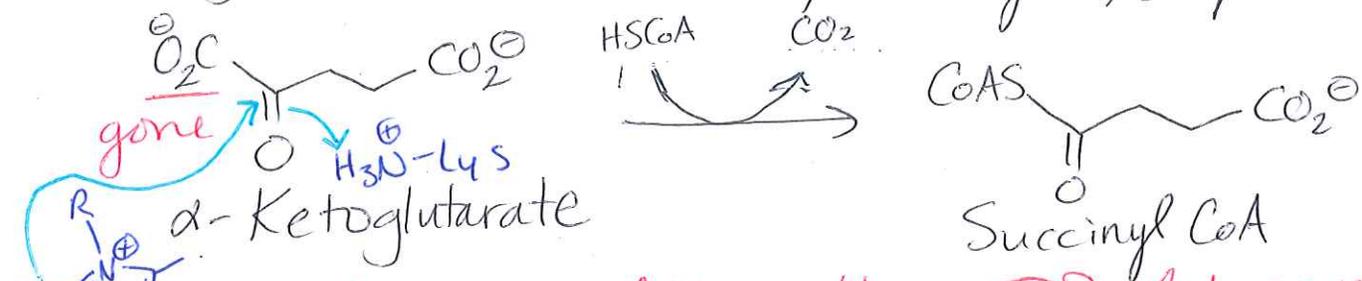
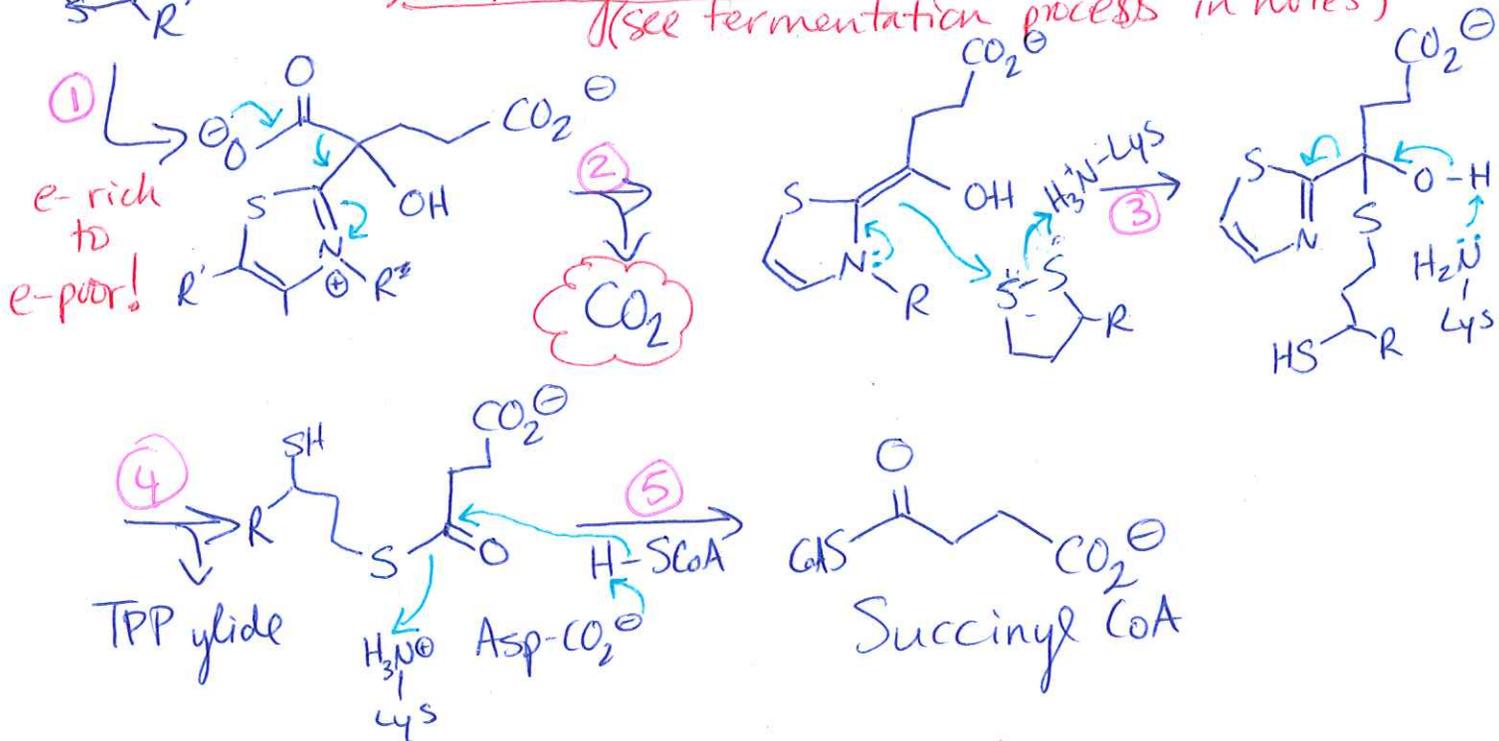


#1 Show the mechanism for CA cycle, step 4



Decarboxylation - utilizes TPP ylide as nuc (see fermentation process in notes)

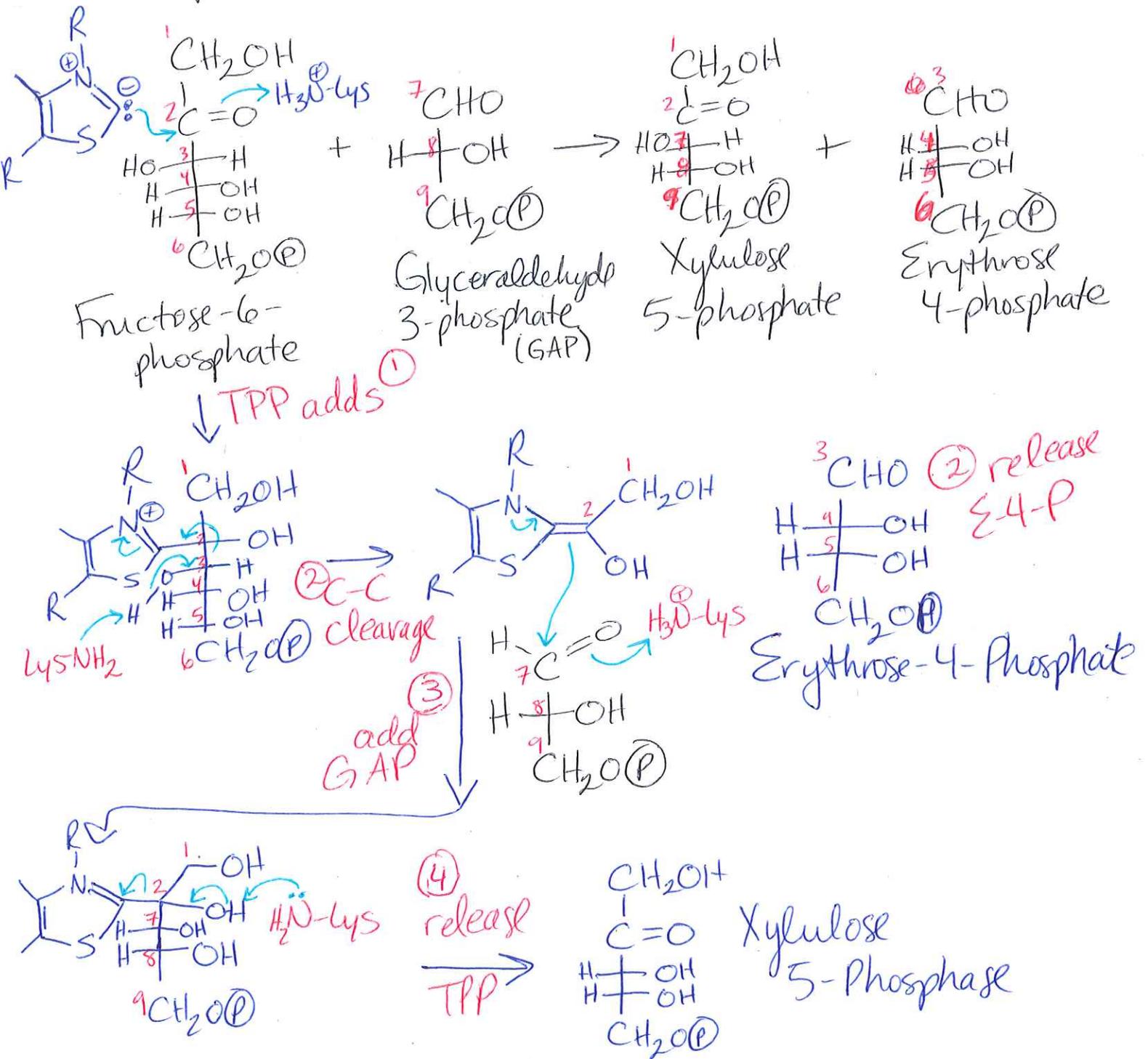


- ① Addition to α -ketoglutarate by TPP ylide
- ② Decarboxylation
- ③ Rxn w/ lipoamide
- ④ Elimination of TPP ylide
- ⑤ Transesterification w/ Coenzyme A (HSCoA)

N-H bonds should be drawn out to show protonation by lysine

Pg 1

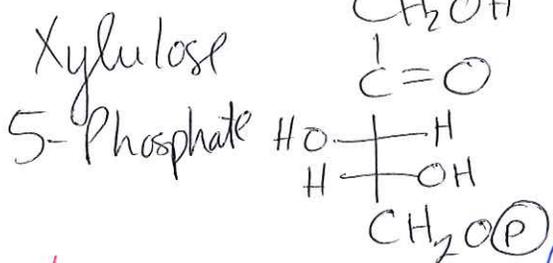
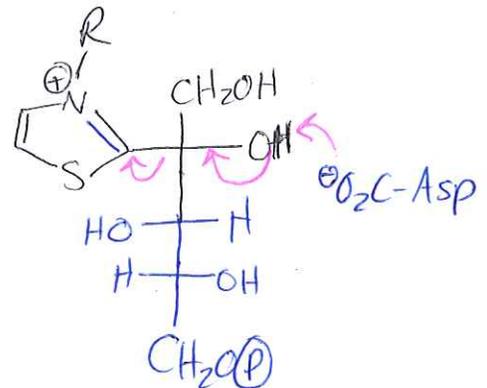
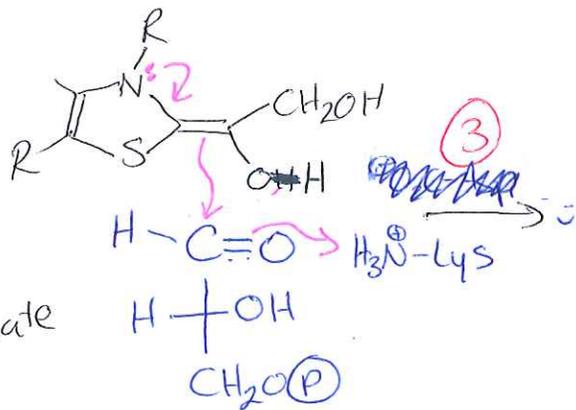
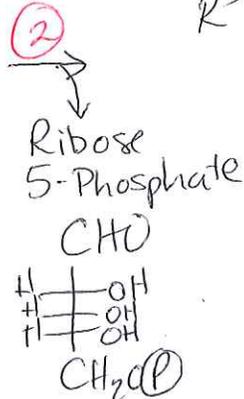
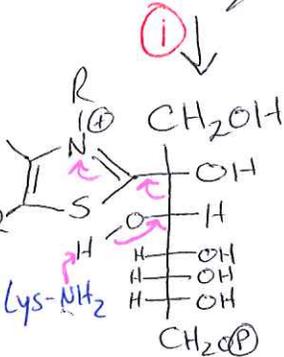
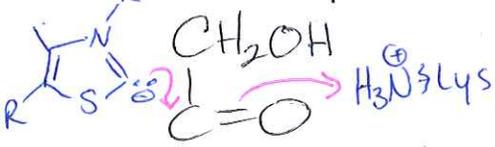
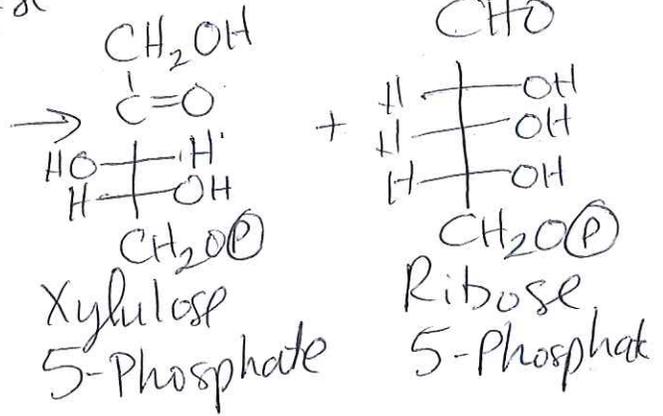
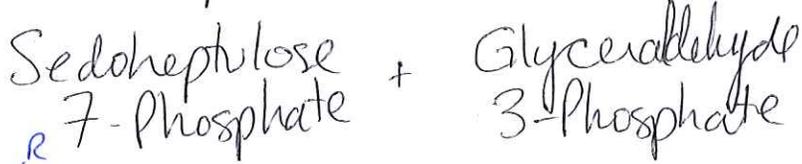
#2 Step 7 RPP, transketolase-cat'zd rxn



N-H bonds should be drawn out to show protonation with lysine

N-H bonds should be drawn out to show protonation with lysine

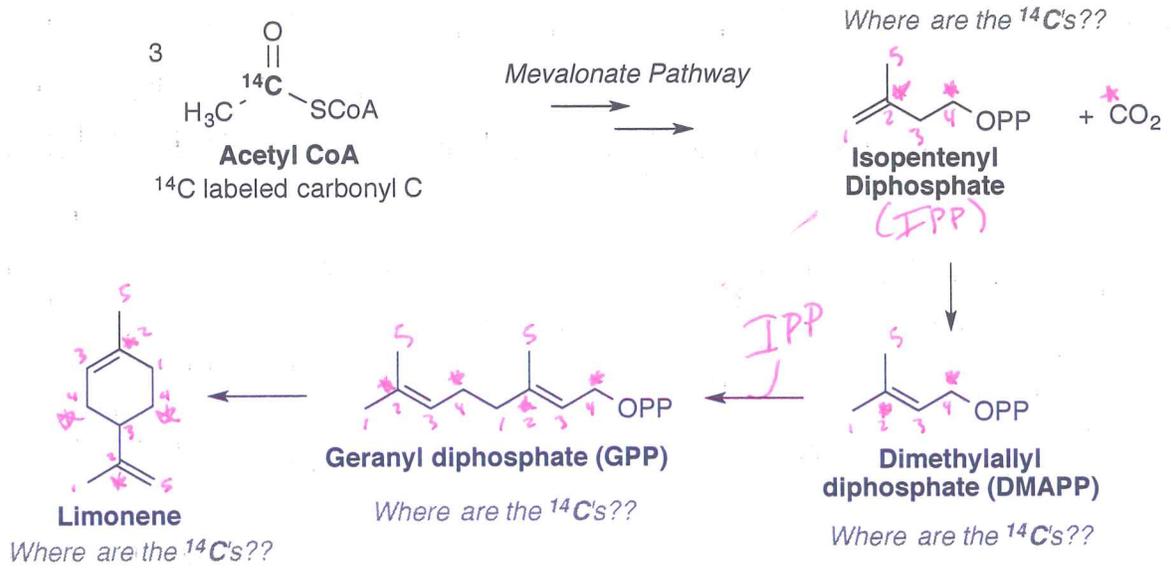
#3 Step 10 RPP transketolase



- ① TPP adduct
- ② C-C Cleavage \rightarrow Ribose-5-Phosphate
- ③ Attack on GAP
- ④ Release of TPP ylide & X5P product

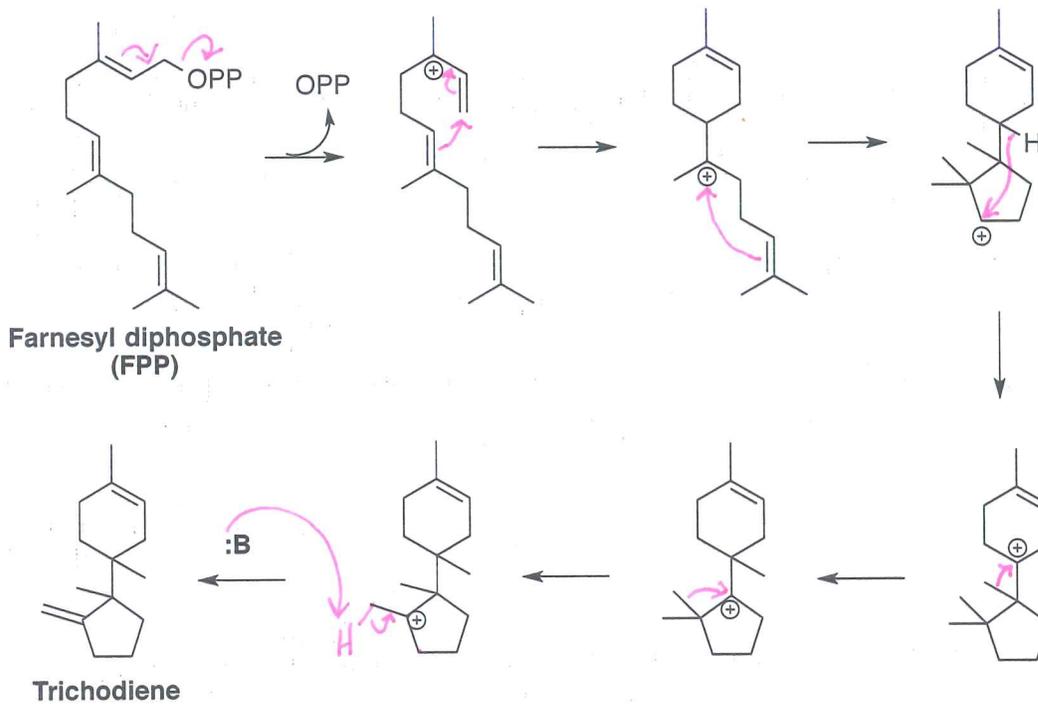
#1

Label ^{14}C 's...



#2

Just add arrows...



#3 (Propose a mechanism...

