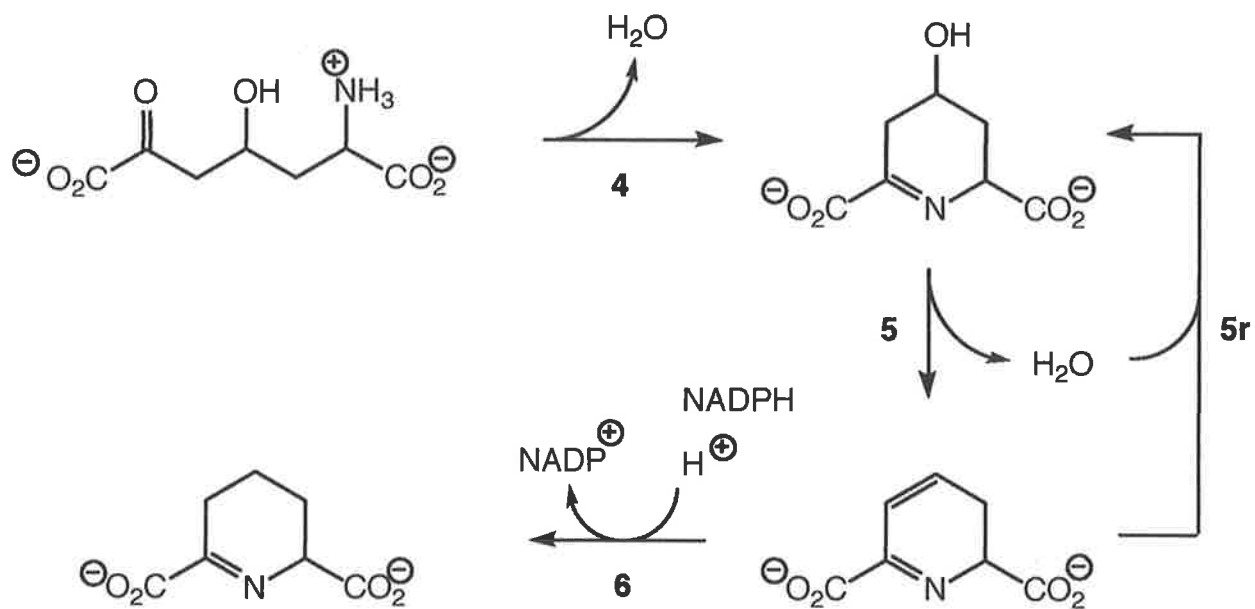


**Study Question 3f**

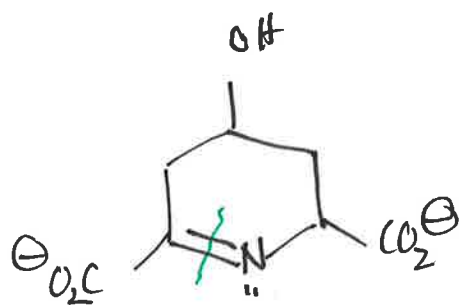
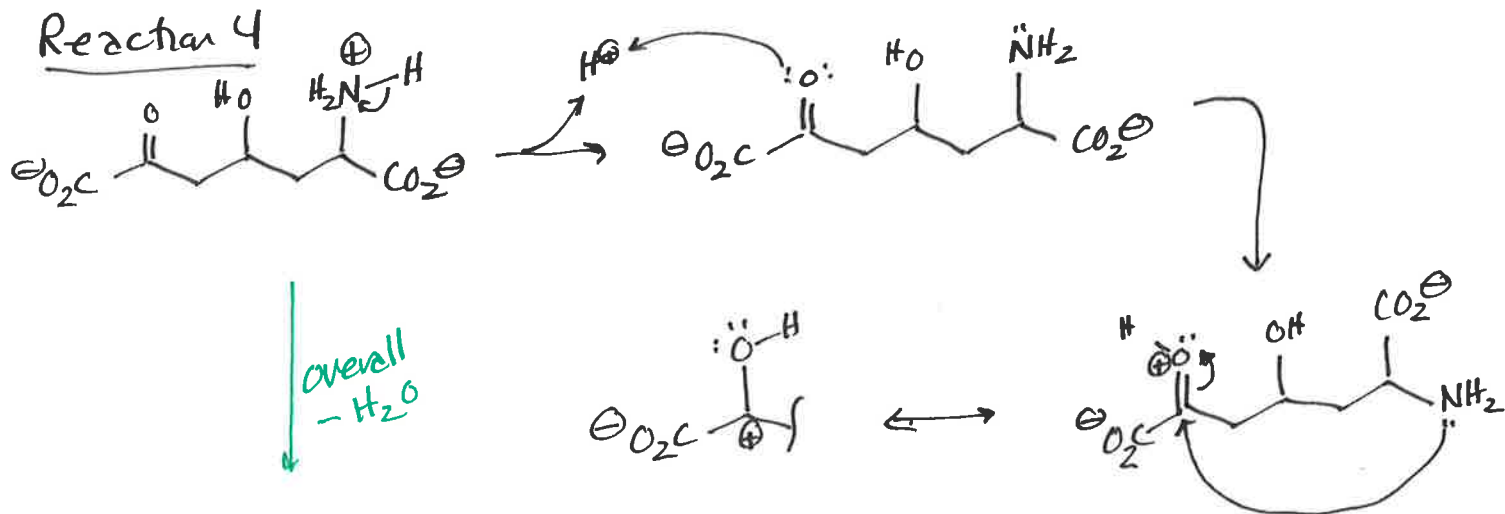
The scheme here is derived from part of the biosynthesis of lysine. For the full scheme, see Figure 5.32 in McBeg.

**KEY**

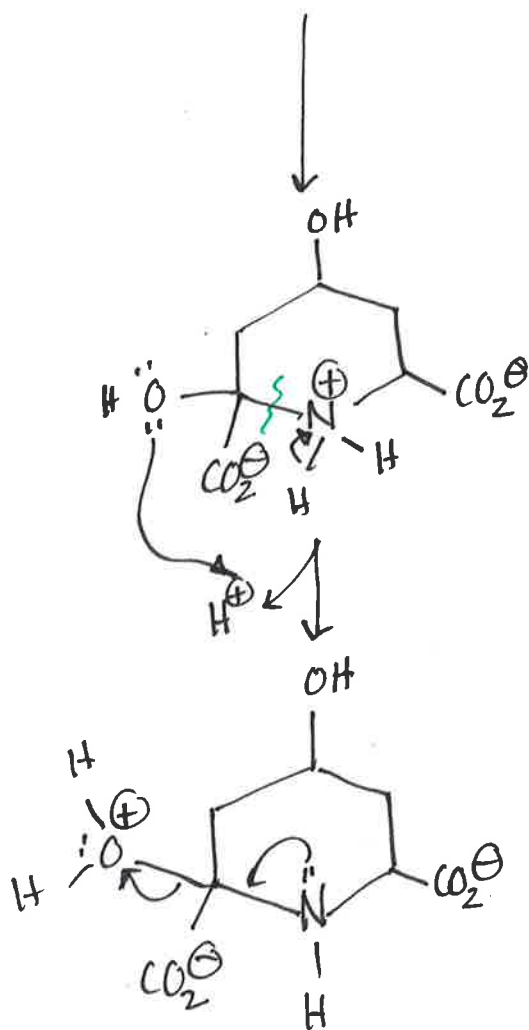
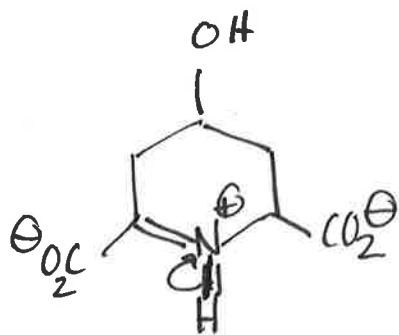
Draw a reasonable mechanism for each step.



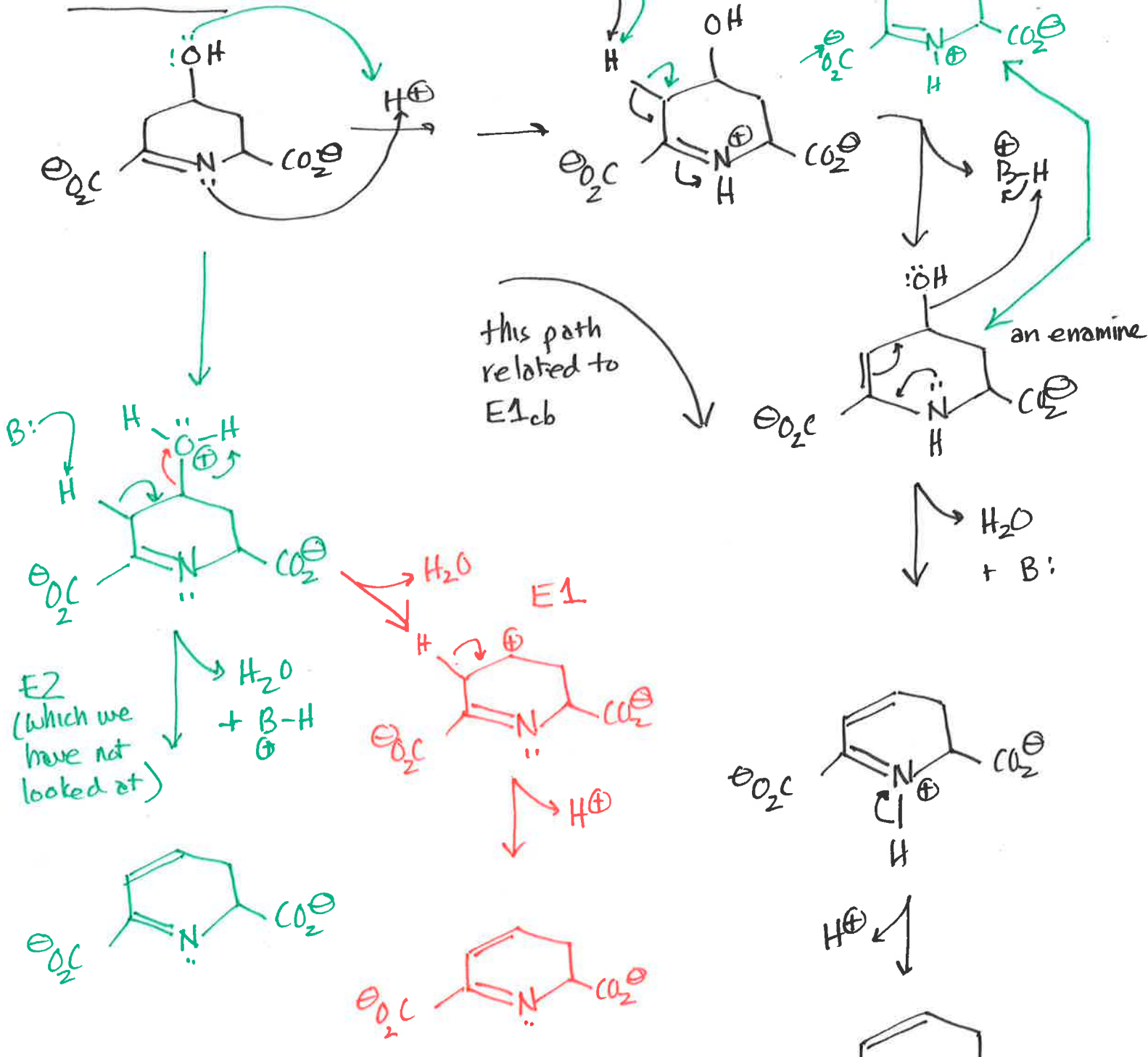
Reaction 4



$Ad_N C=O$   
 followed by  
 elimination

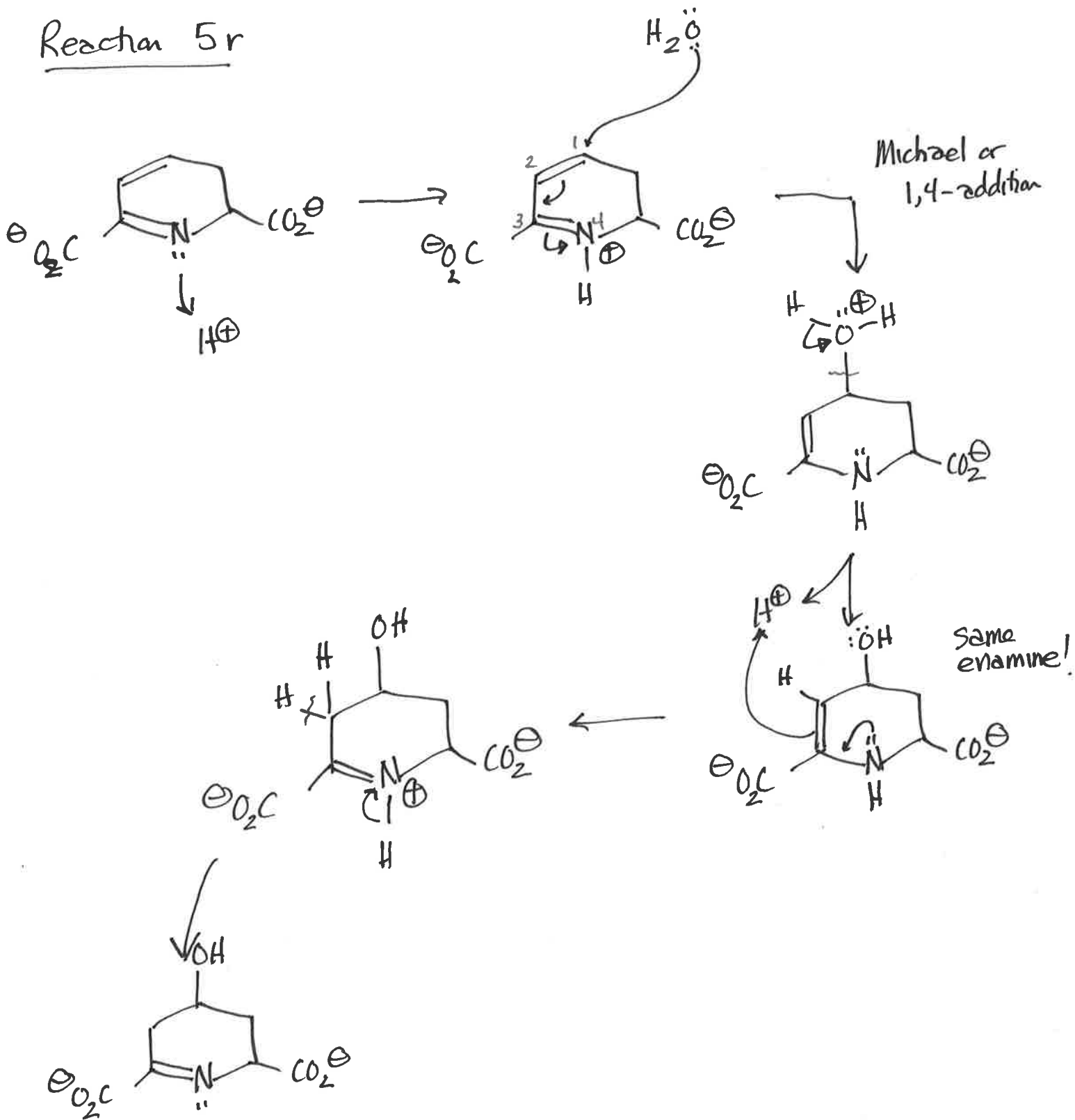


# Reaction 5



I expect most of you will write something E1-ish but please study the E1cb route as it is most likely.

Reaction 5r



Reaction 6

NADPH

