SI Session 17
11/05

True or False

false ■ FAD stands for flavin alanine diphosphate.
- If not, what does it stand for?
  - flavin adenine dinucleotide

false ■ The deficiency of Riboflavin results in pellagra. → this is the deficiency for niacin!
- If not, what is the deficiency of riboflavin?
  - impossible to be deficient due to vit. B2 being present in all living organisms

true ■ Vitamin B3 is known as Niacin.
- If not, what is the other name of Vitamin B3?

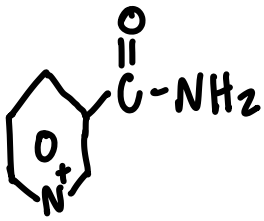
false ■ Vitamin B3 is ingested as niacin.
- If not, what is ingested as vitamin B3?
  - ingested as tryptophan (precursor molecule)

false ■ This structure of Niacin is correct.
- If not, draw the correct structure in the space provided

incorrect

correct

True ■ Niacin is transformed into Nicotinamide which has this structure.
- If not, fix the structure and include the correct name

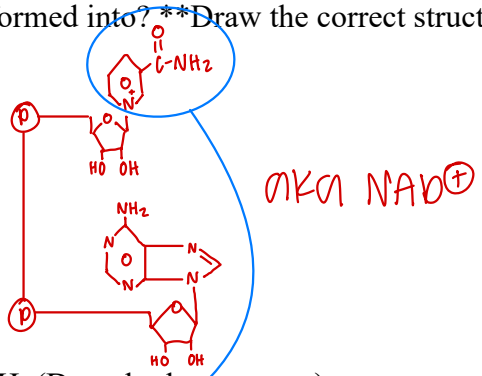


amide group!

correct!

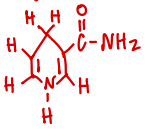
True

- Nicotinamide is then transformed into Nicotinamide Adenine Dinucleotide.
  - If not, what is nicotinamide transformed into? **~~Draw~~ the correct structure!!



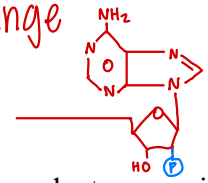
False

- NAD^+ is the ~~reduced~~ oxidized! version of NADH. (Draw both structures)
  - only this group changes.. becomes



True

- NADPH is the reduced version of $NADP^+$. (draw both structures)
  - draw NADH as you normally would, but change
  - draw NAD+ as you normally would but change



False

- NAD acts as an electron carrier and binds irreversibly to proteins.
  - If incorrect, correct the sentence appropriately
    - NAD+ acts as an electron carrier & binds transiently to proteins

True

- The deficiency of Vit B3 is Pellagra.
  - If not, what is the deficiency?

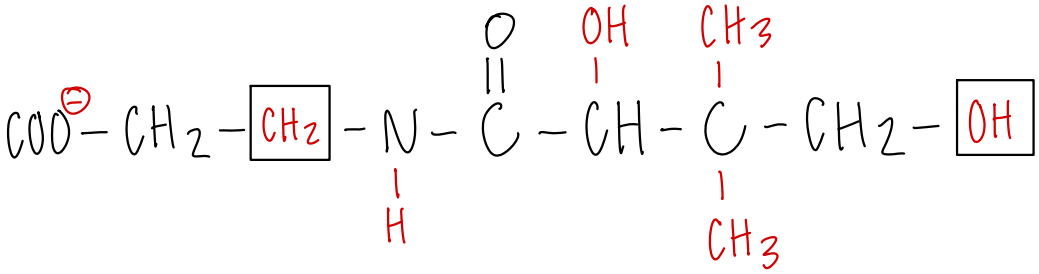
True

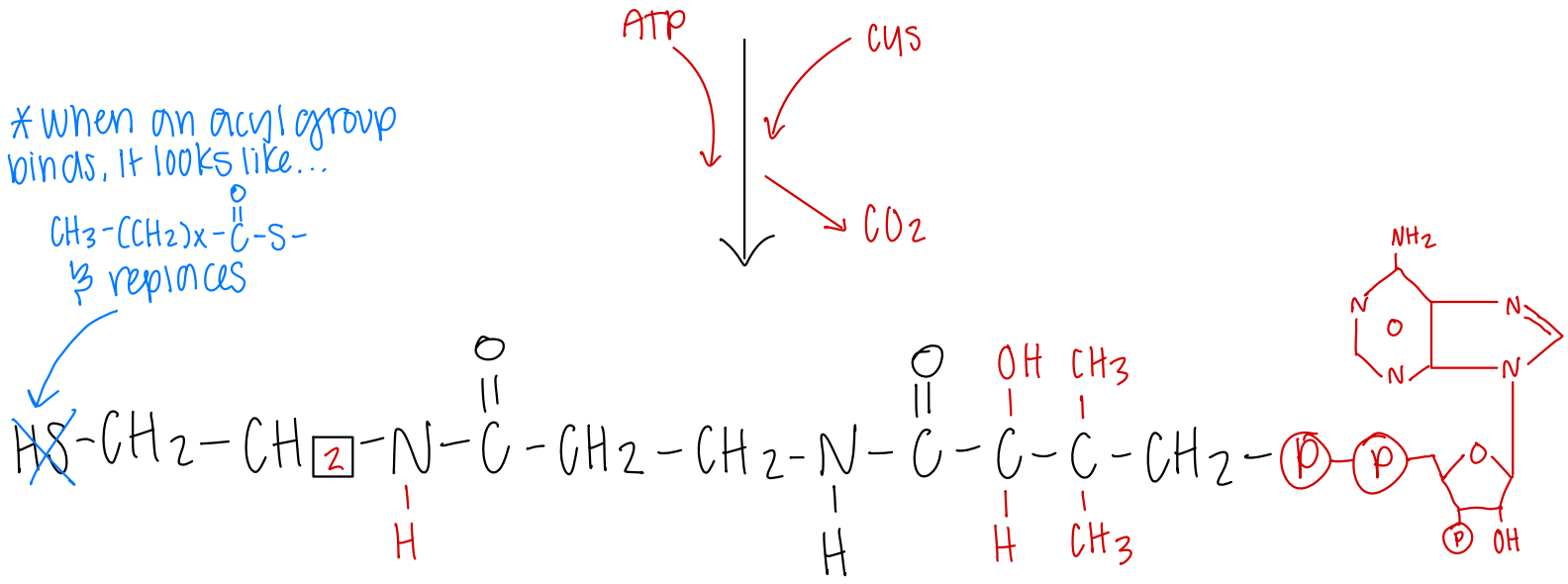
- There is no known deficiency of pantothenic acid (B5).

- If false, what is the deficiency?

■ Include the missing information

Pantothenic acid (vit. B5)





*when an acyl group binds, it looks like...

$CH_3-(CH_2)x-\overset{O}{\overset{\|}{C}}-S-$

replaces

name of product: coenzyme A "CoA"

*CoA is an acyl carrier

*decarboxylation of cys & aspartate