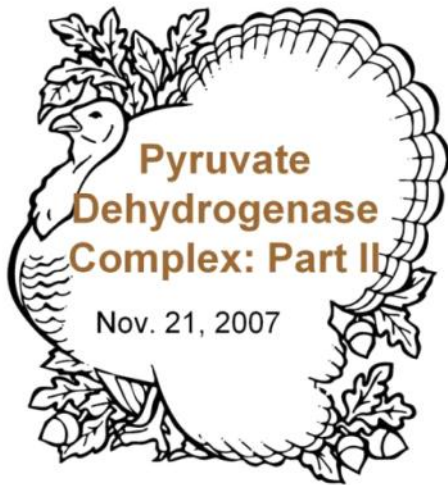


Notes 11/21

Wednesday, November 21, 2007
1:01 PM

Missed class... slept in



Next Quiz

Memorize Glycolysis in terms of all enzyme names, intermediate structures and names, and cofactor names of all the steps. Also know the summary equation for the pathway – glucose to pyruvate.

Overview

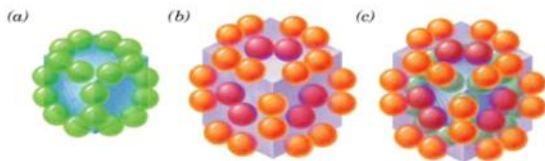
- Pyruvate dehydrogenase complex
- Extra credit: any artists out there?
- In class problem set. Worth 1 pt.

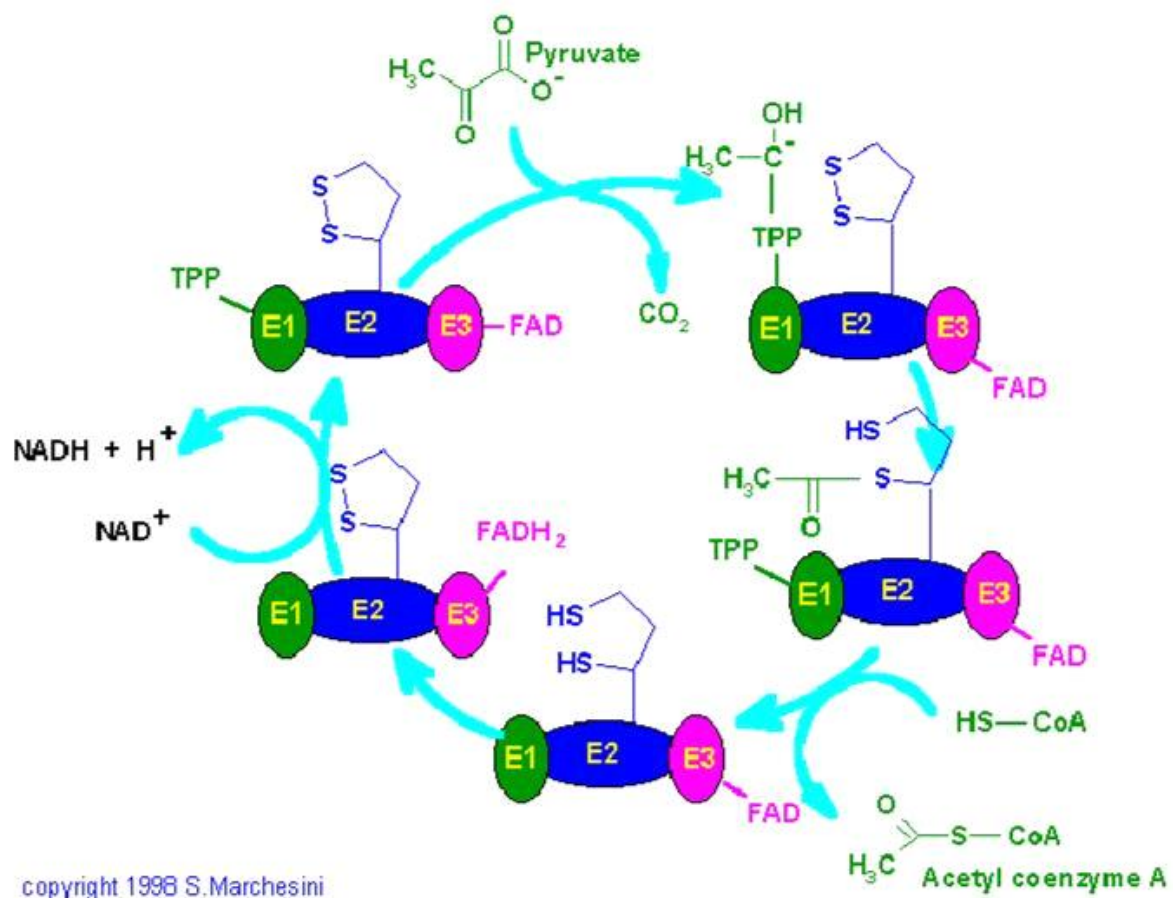
Veisalgia and NADH

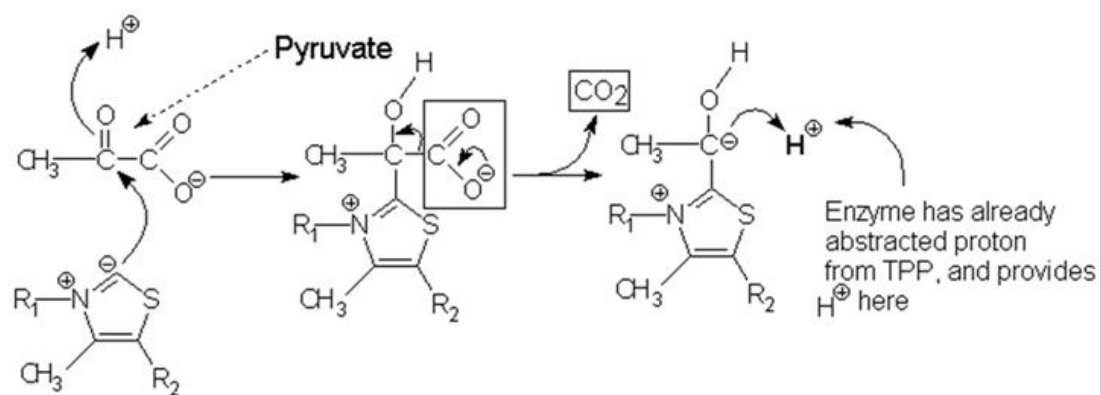


- Ethanol is converted to acetaldehyde causing an increase in [NADH]
- [NADH] increase activates lactate DH
- [Lactate] increases
- Overall, pyruvate is not used to its full potential

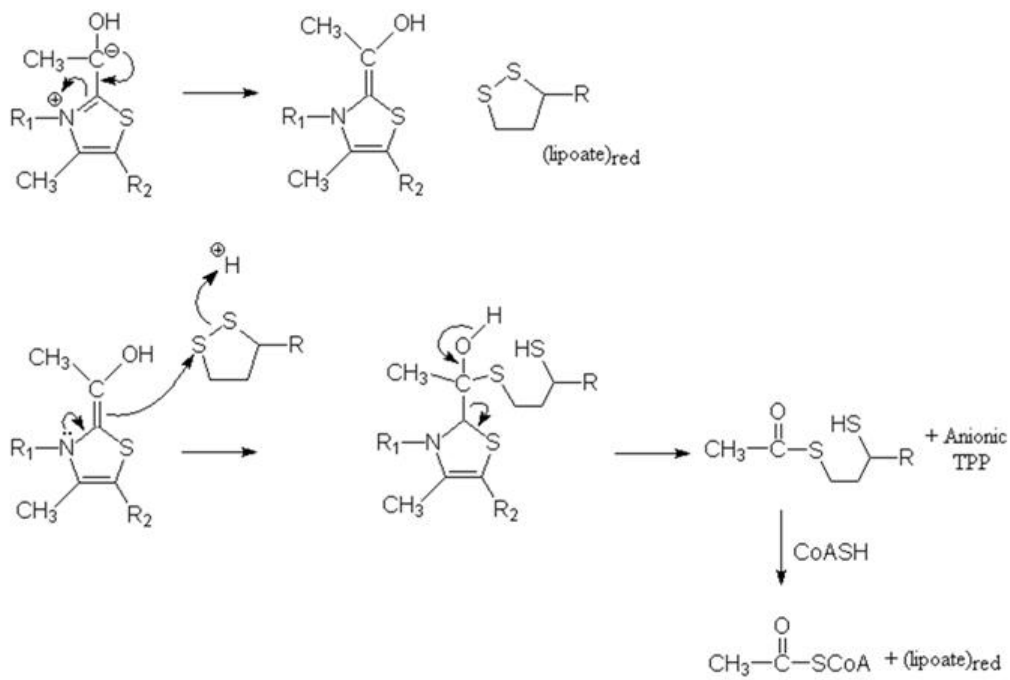
Figure 21-4 Structural organization of the *E. coli* PDC.








Oxidative Decarboxylation
(Pyruvate to Acetyl CoA)



- The following animated images can be found at each posted link.

 To help protect your privacy, PowerPoint prevented the external picture from being automatically downloaded. To download and display the picture, click Options in the Message Bar, and then click Enable external content.

<http://www.bmb.uga.edu/8010/moremen/weblinks/nucleotide/PyrDehyd/PyrDehydE1.gif>

 To help protect your privacy, PowerPoint prevented the external picture from being automatically downloaded. To download and display the picture, click Options in the Message Bar, and then click Enable external content.

<http://www.bmb.uga.edu/8010/moremen/weblinks/nucleotide/PyrDehyd/PyrDehydE2.gif>



<http://www.bmb.uga.edu/8010/moremen/weblinks/nucleotide/Pyruvate/Pyruvate3.gif>

Any artists in the class?

Up to 5 points extra credit for your very creative performance of material that we have covered since week 6.

Must be original work! Be sure to give credit to other artists. For example, if you adapt a song's lyrics for biochem then state who wrote the melody/lyrics.

Turn it in during office hours no later than Friday of Week 10.

- 2-3 min song with lyrics (5 pts)
 - 2 bonus points if you perform your song for the class with live music!
- Drawing of glycolysis or TCA (5 pts)
- 2-3 min interpretive dance with narration (5 pts)
- 2-3 minute skit (5 pts)
- Sculpture (5 pts)
- Scale
 - 5 pts: Hollywood Bowl/MOCA
 - 4 pts: Royce Hall/Hammer Museum
 - 3 pts: Sunset Strip
 - 2 pts: Silverlake coffee shop
 - 1 pts: Mom would be proud

In Class Problem #1

$\Delta^{\circ}G$ for the aldolase rxn is +22.8 kJ mol⁻¹. In the cell, at 37°C, the ratio of [DHAP]/[GAP] = 5.5. Calculate the equilibrium ratio of [FBP]/[GAP] when [GAP] is:

- (a) 2×10^{-5} M
- (b) 10^{-3} M.