

Ankara University, Faculty of Agriculture , Department of Fisheries and Aquaculture, Programme of Fisheries and Aquaculture

AQS104: Biochemistry

Reference: Nelson, D. L., Lehninger, A. L., & Cox, M. M. (2008). ***Lehninger Principles of Biochemistry (5th edition)***. Macmillan.

AQS104 BIOCHEMISTRY: Weekly Programme

1. Week:

- The foundations of biochemistry
- Water

2. Week:

- Amino acids, peptides, and proteins
- The three-dimensional structure of proteins

3. Week:

- Protein function
- Enzymes

4. Week:

- Carbohydrates and Glycobiology
- Nucleotides and Nucleic Acids

5. Week:

- DNA-based information technologies
- Lipids

6. Week:

Biological membranes and transport
Biosignaling

7. Week:

Bioenergetics and biochemical reaction types
Glycolysis, gluconeogenesis, and the pentose phosphate pathway

8. Week:

Principles of metabolic regulation
The citric acid cycle

9. Week:

Fatty acid catabolism
Aino acid oxidation and the production of urea

10. Week:

Oxidative phosphorylation and photophosphorylation
Carbohydrate biosynthesis in plants and bacteria

11. Week:

Lipid biosynthesis
Biosynthesis of amino acids, nucleotides, and related molecules

12. Week:

Hormonal regulation and integration of mammalian metabolism
Genes and chromosomes

13. Week:

DNA metabolism
RNA metabolism

14. Week:

Protein metabolism
Regulation of gene expression

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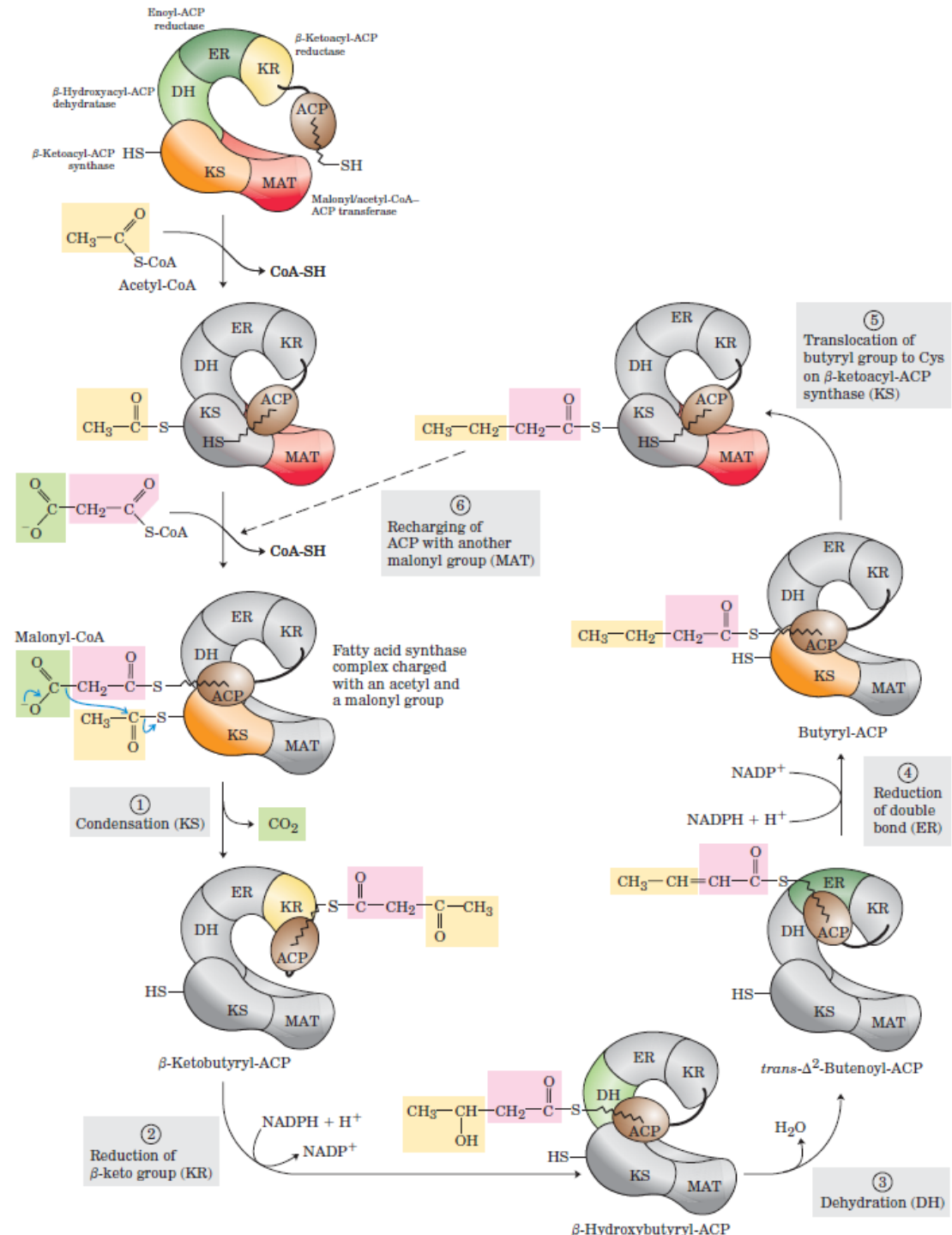
AQS104: Biochemistry

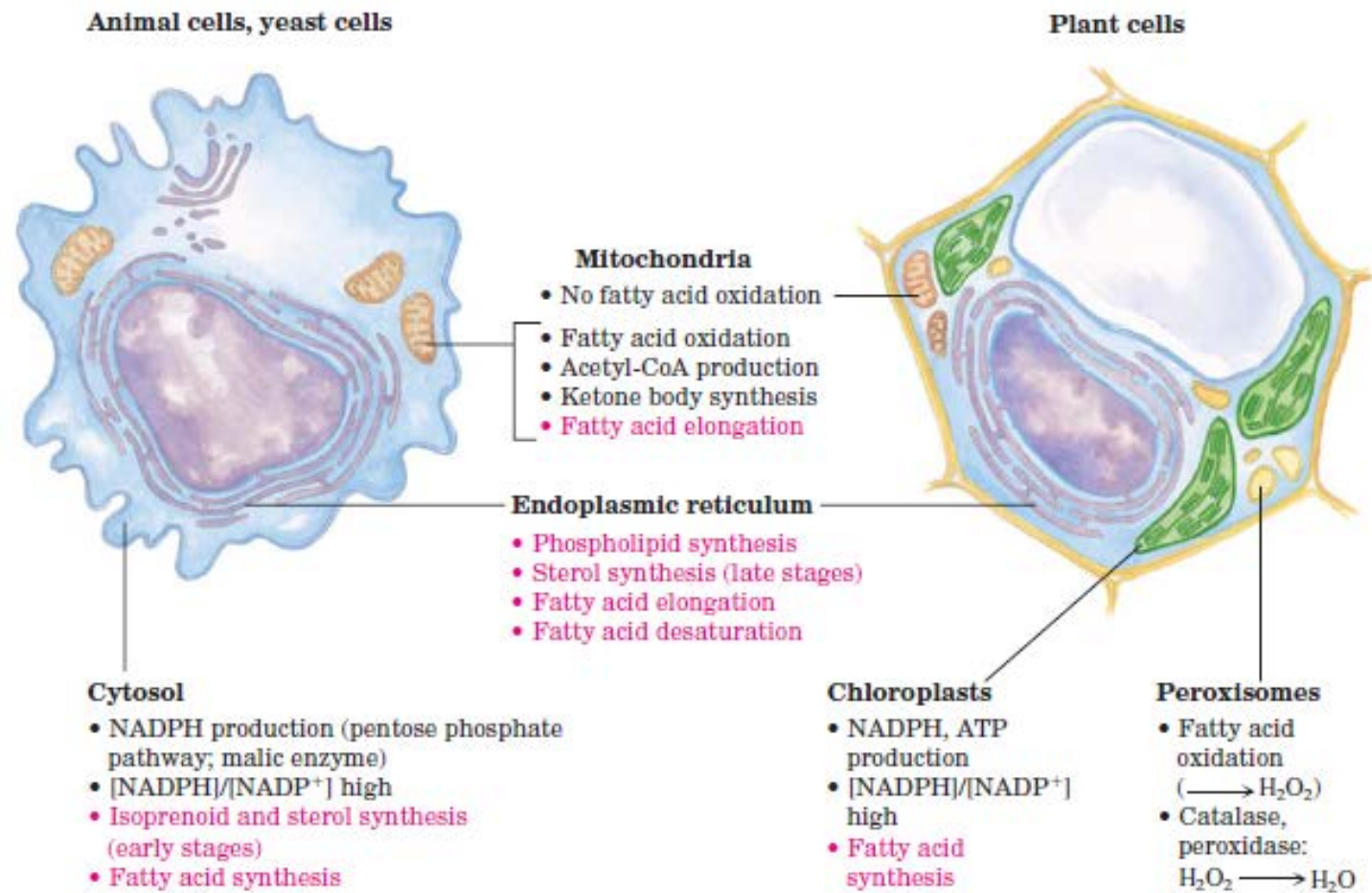
11. Week:

Lipid Biosynthesis

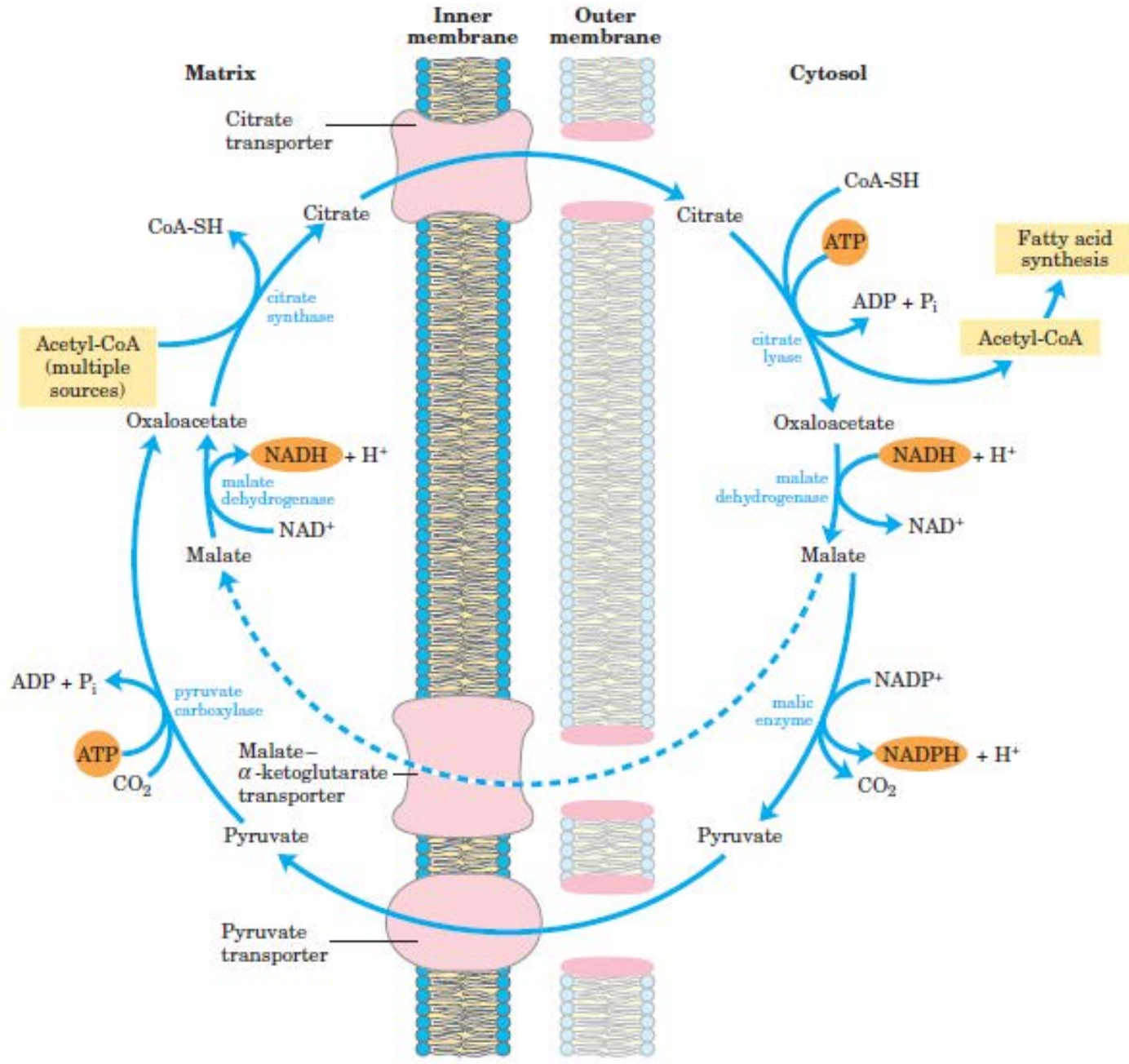
Biosynthesis of Amino Acids, Nucleotides, and Related Molecules

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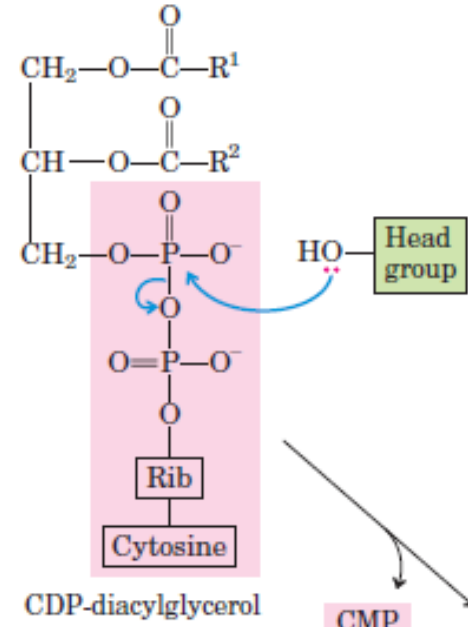




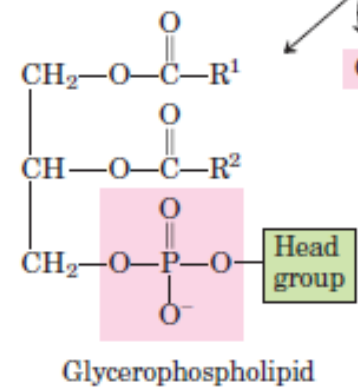
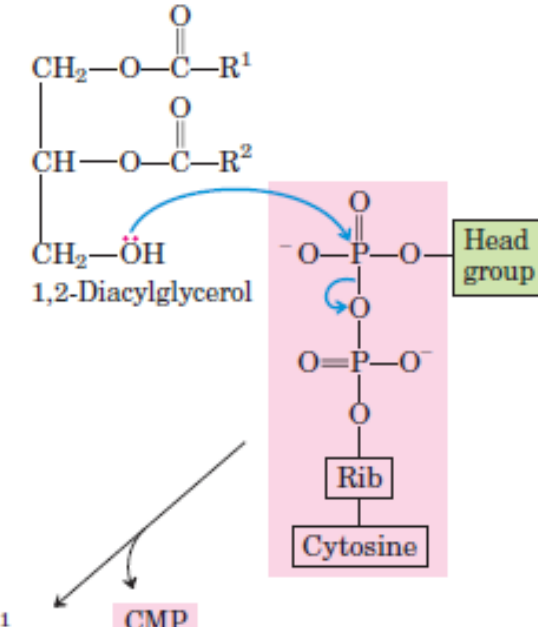
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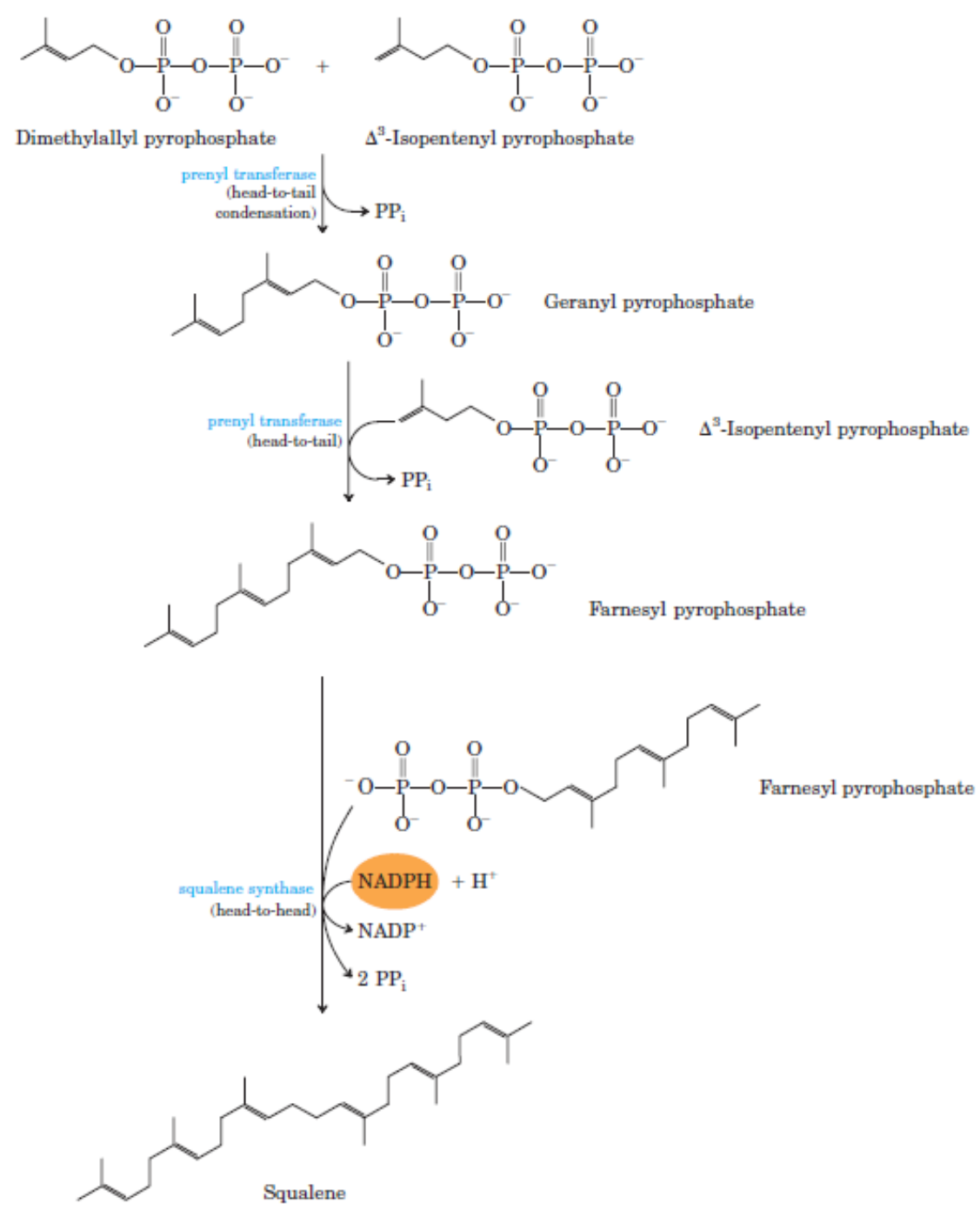


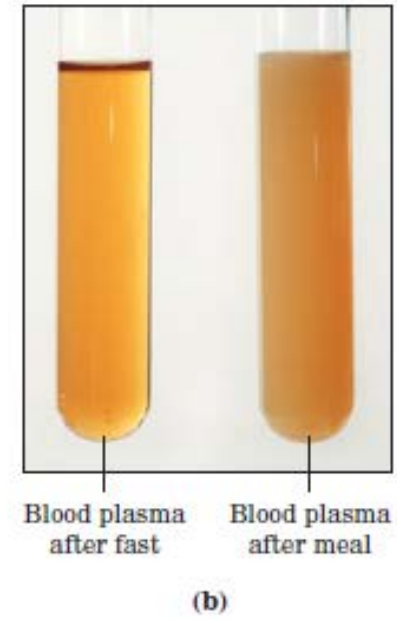
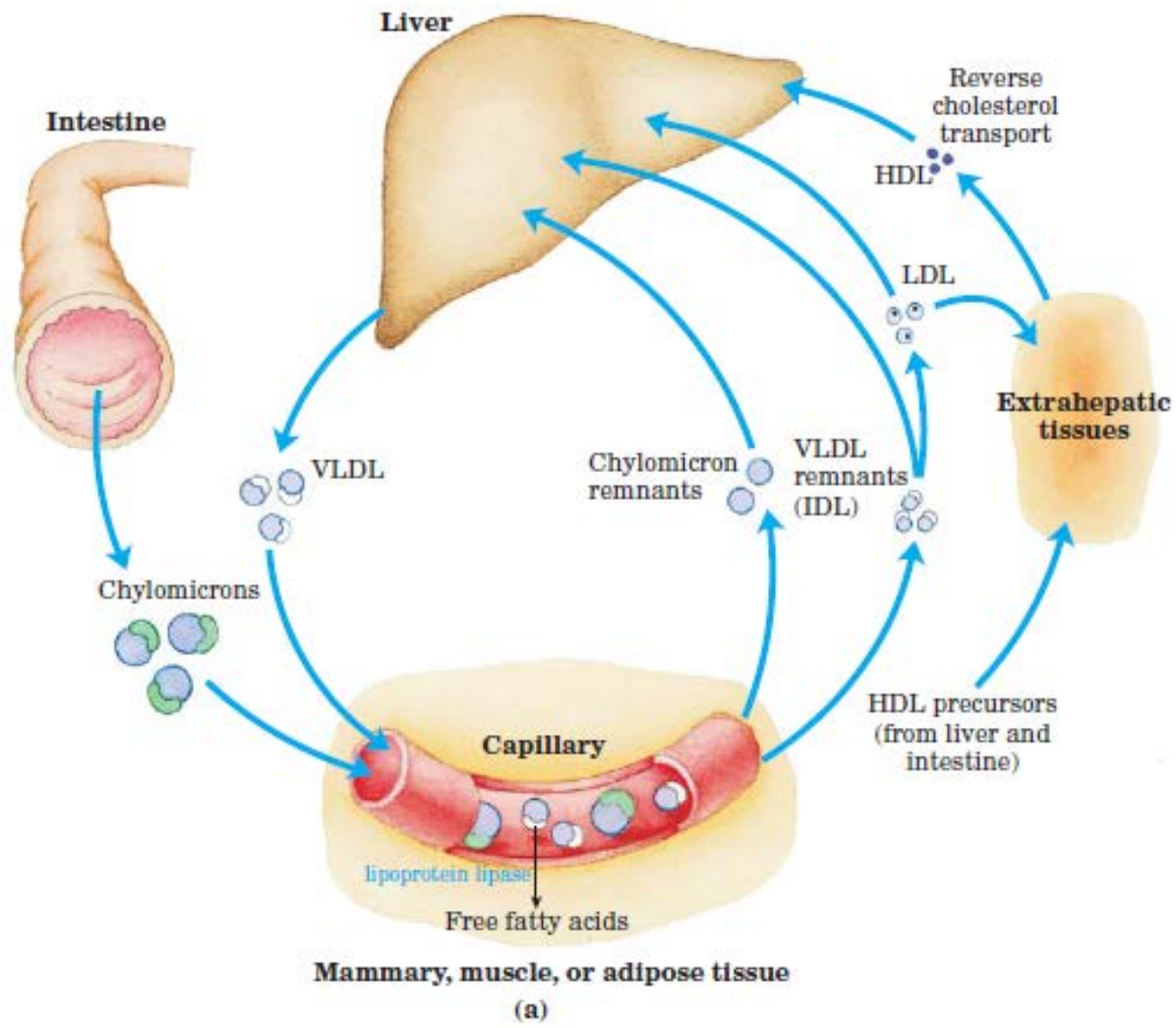
Strategy 1
Diacylglycerol
activated with CDP



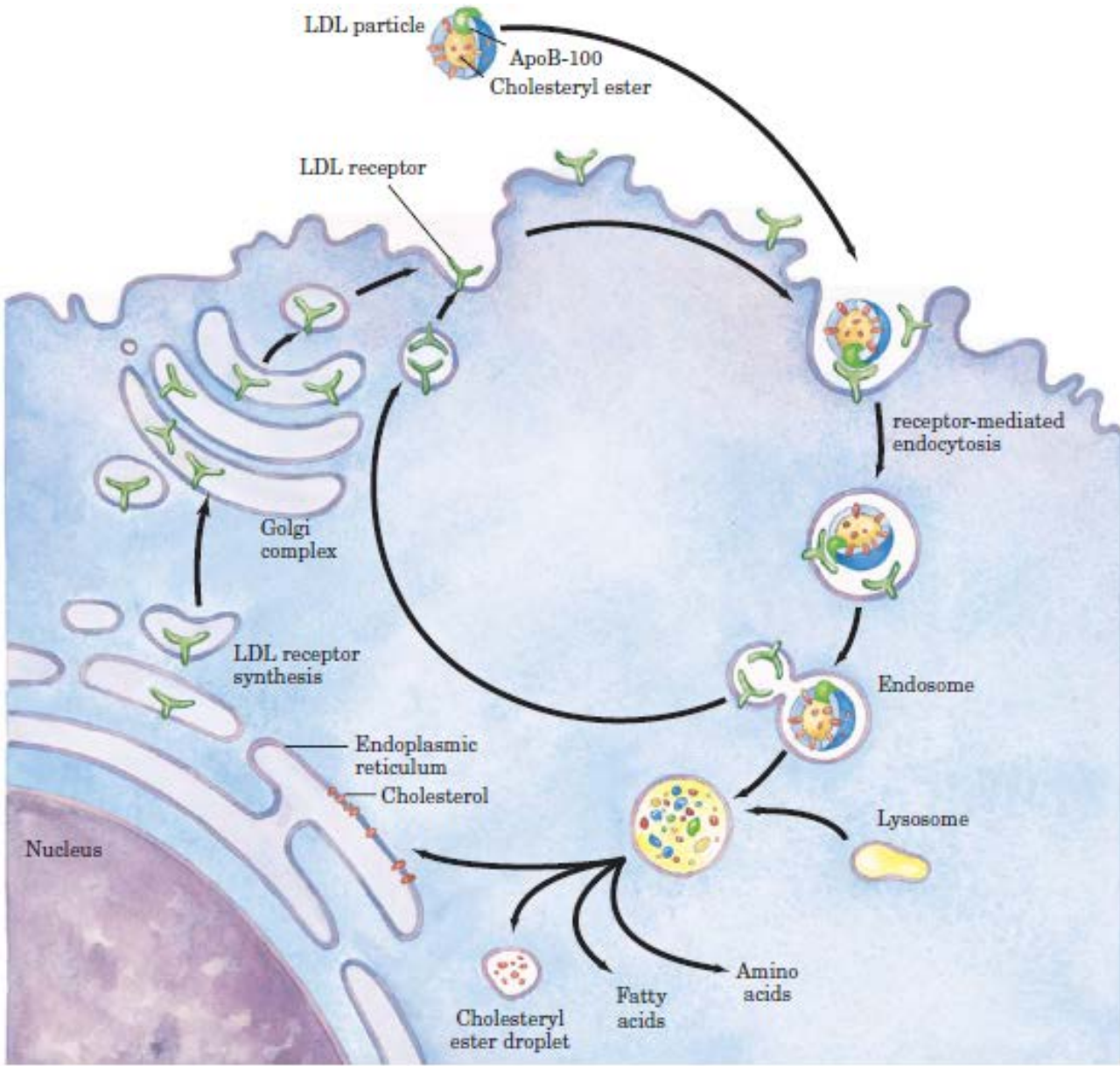
Strategy 2
Head group
activated with CDP

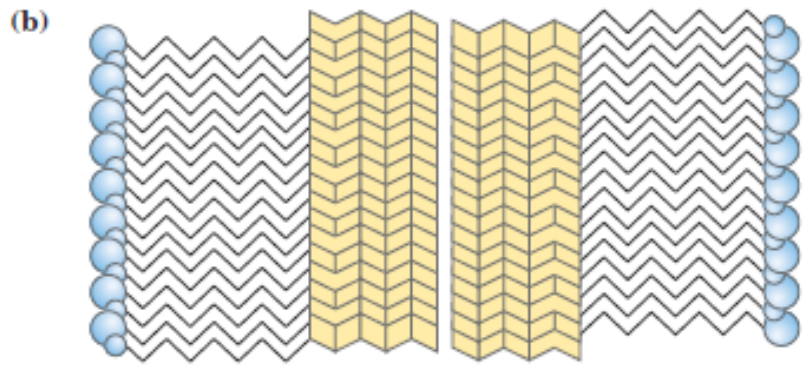
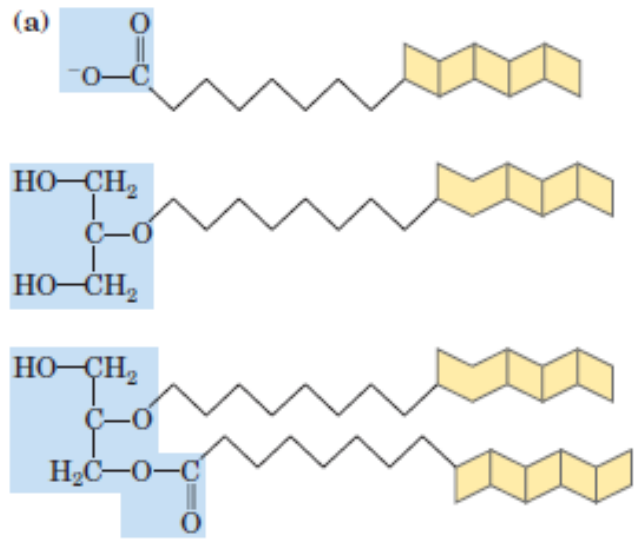




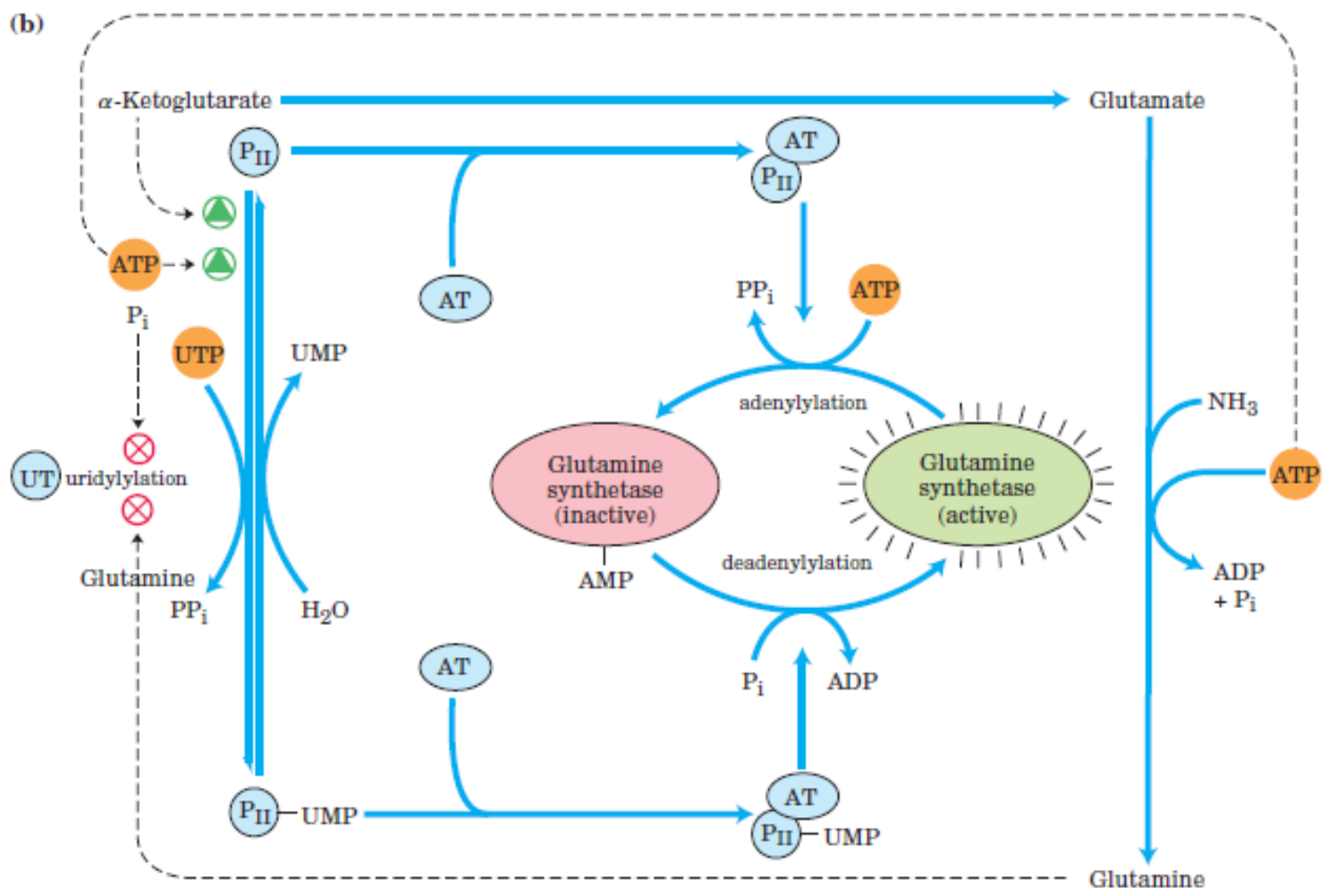


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