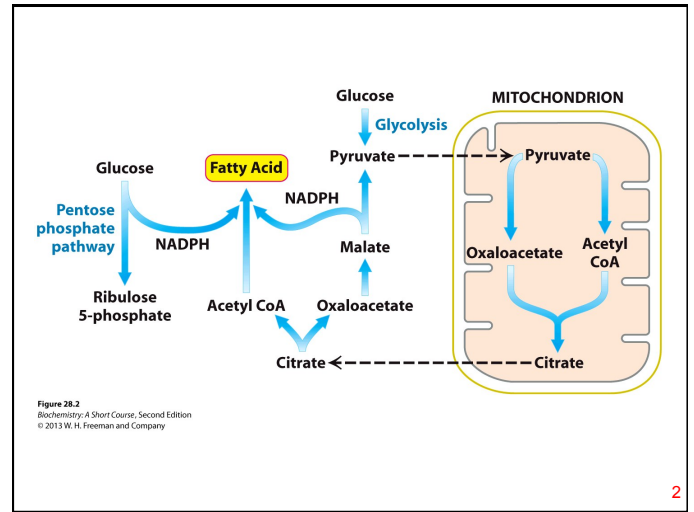
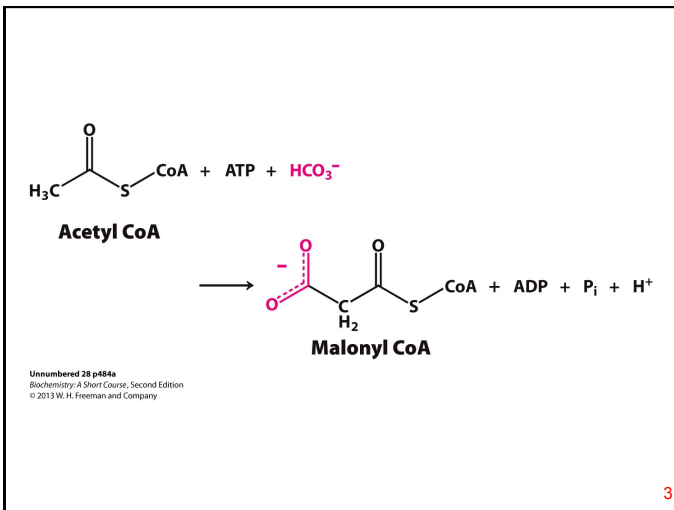


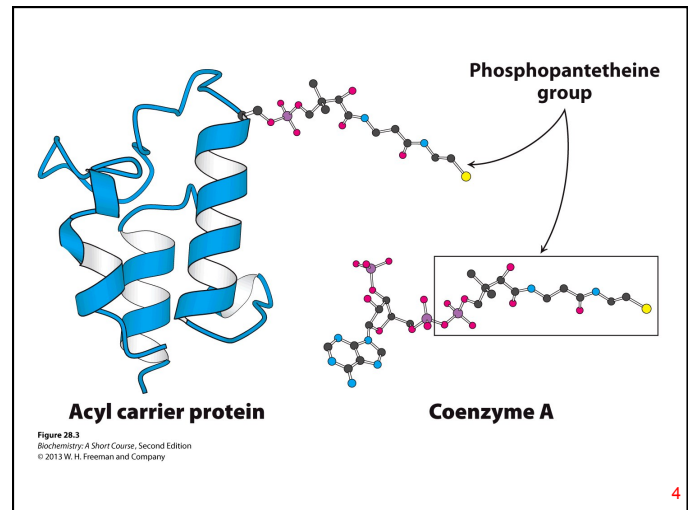
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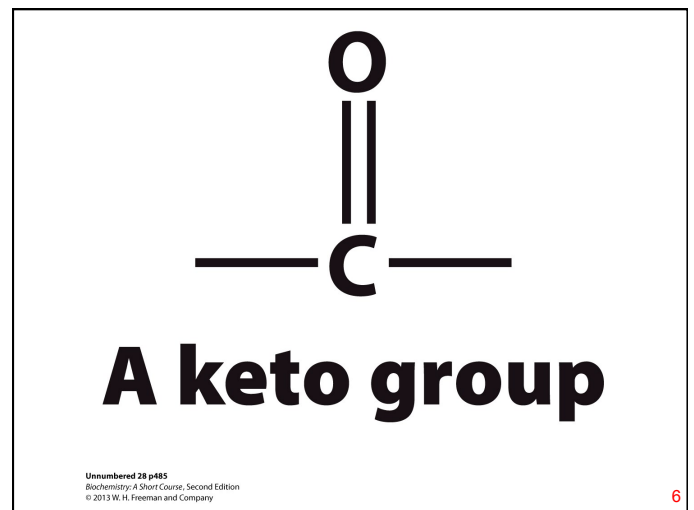
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Table 28.1 Principal reactions in fatty acid synthesis in bacteria

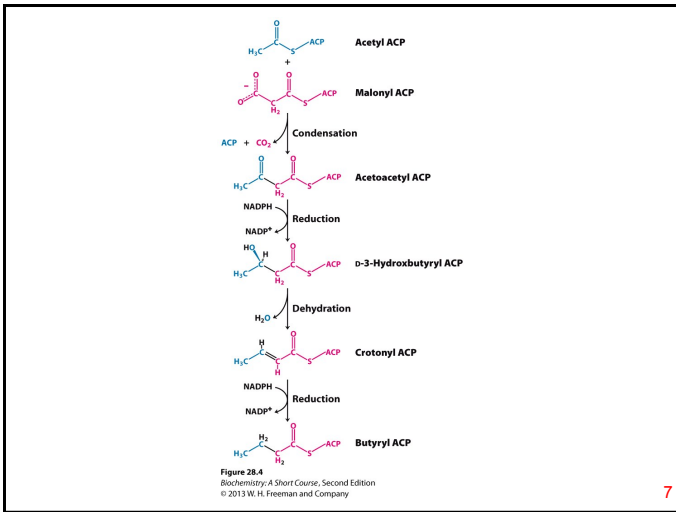
Step	Reaction	Enzyme
1	Acetyl CoA + HCO ₃ ⁻ + ATP → malonyl CoA + ADP + P _i + H ⁺	Acetyl CoA carboxylase
2	Acetyl CoA + ACP ⇌ acetyl ACP + CoA	Acetyl transacylase
3	Malonyl CoA + ACP ⇌ malonyl ACP + CoA	Malonyl transacylase
4	Acetyl ACP + malonyl ACP → acetoacetyl ACP + ACP + CO ₂	β-Ketoacyl synthase
5	Acetoacetyl ACP + NADPH + H ⁺ ⇌ D-3-hydroxybutyryl ACP + NADP ⁺	β-Ketoacyl reductase
6	D-3-Hydroxybutyryl ACP ⇌ crotonyl ACP + H ₂ O	3-Hydroxyacyl dehydratase
7	Crotonyl ACP + NADPH + H ⁺ → butyryl ACP + NADP ⁺	Enoyl reductase

Table 28.1
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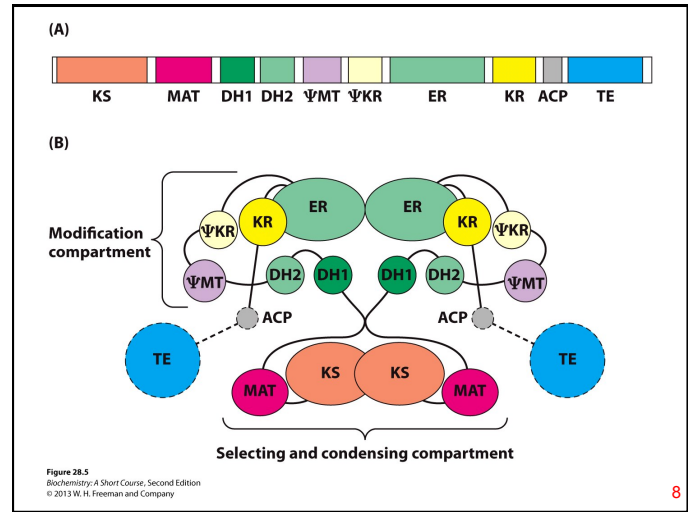
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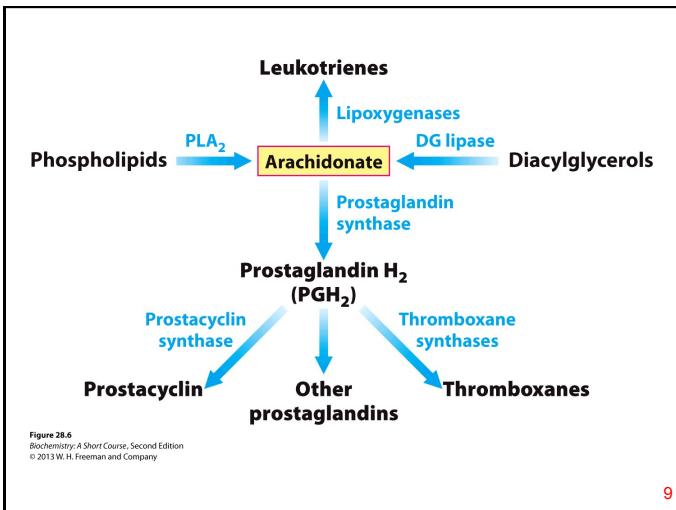
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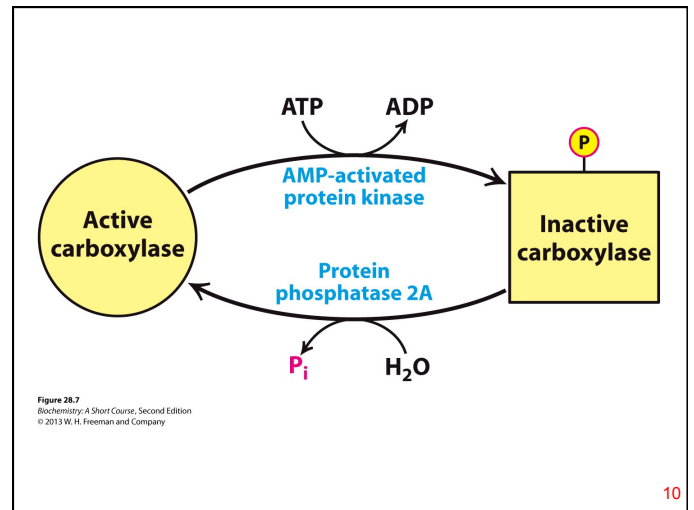
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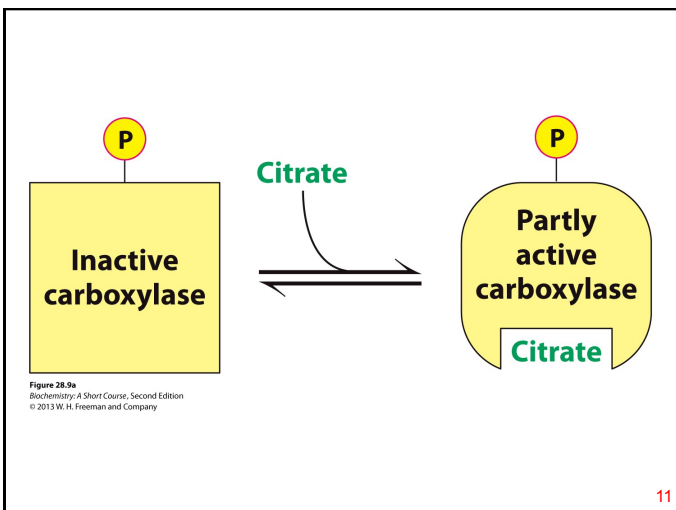
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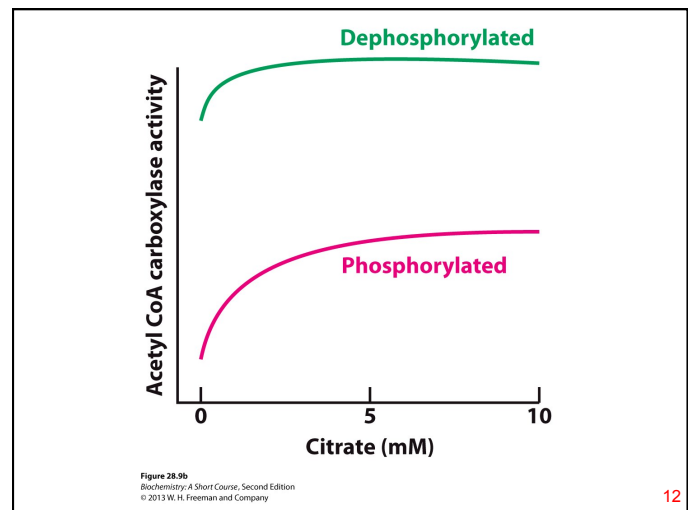
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