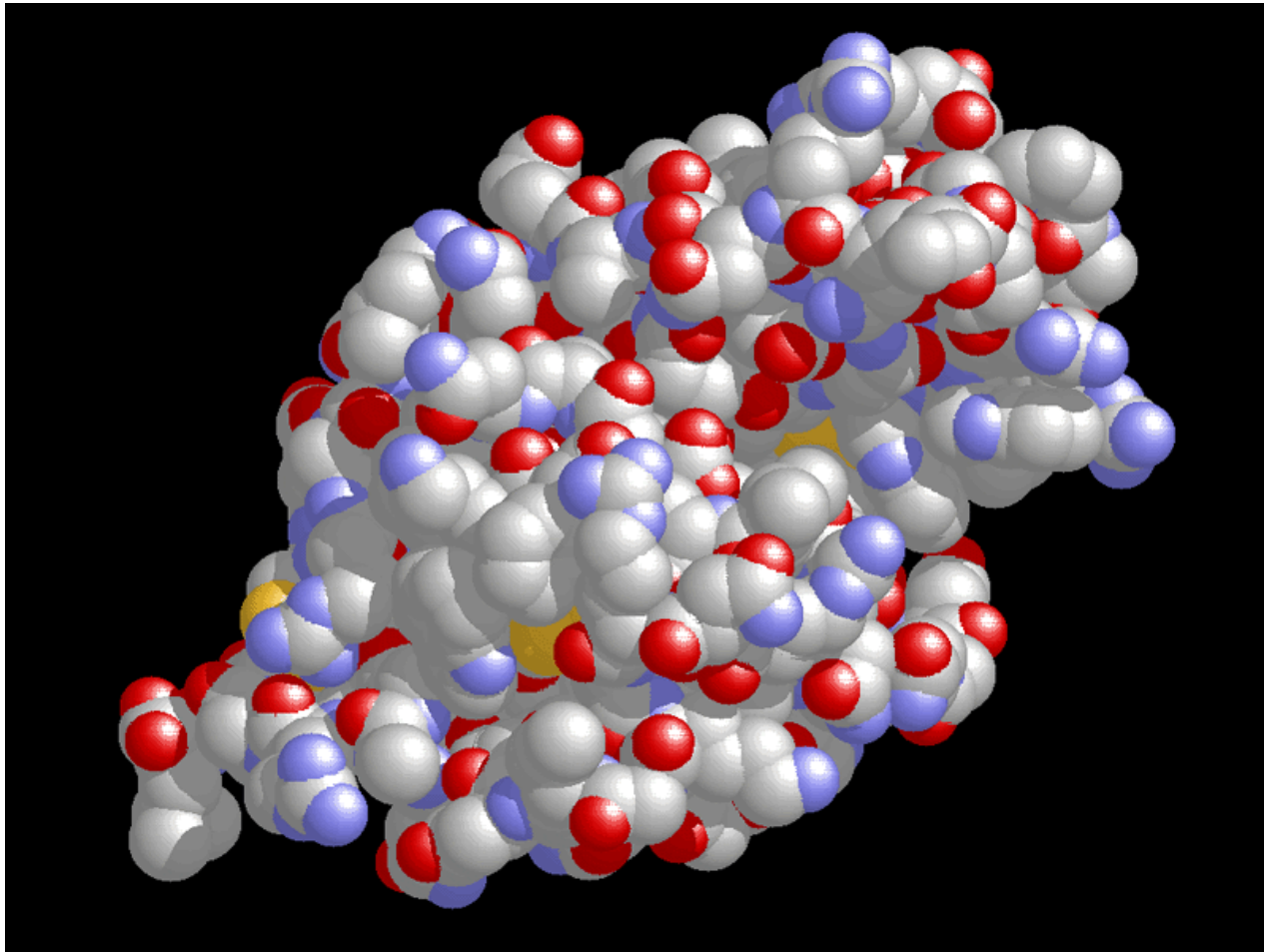


AP Biology

Biochemistry: Macromolecules

Part 2

Proteins



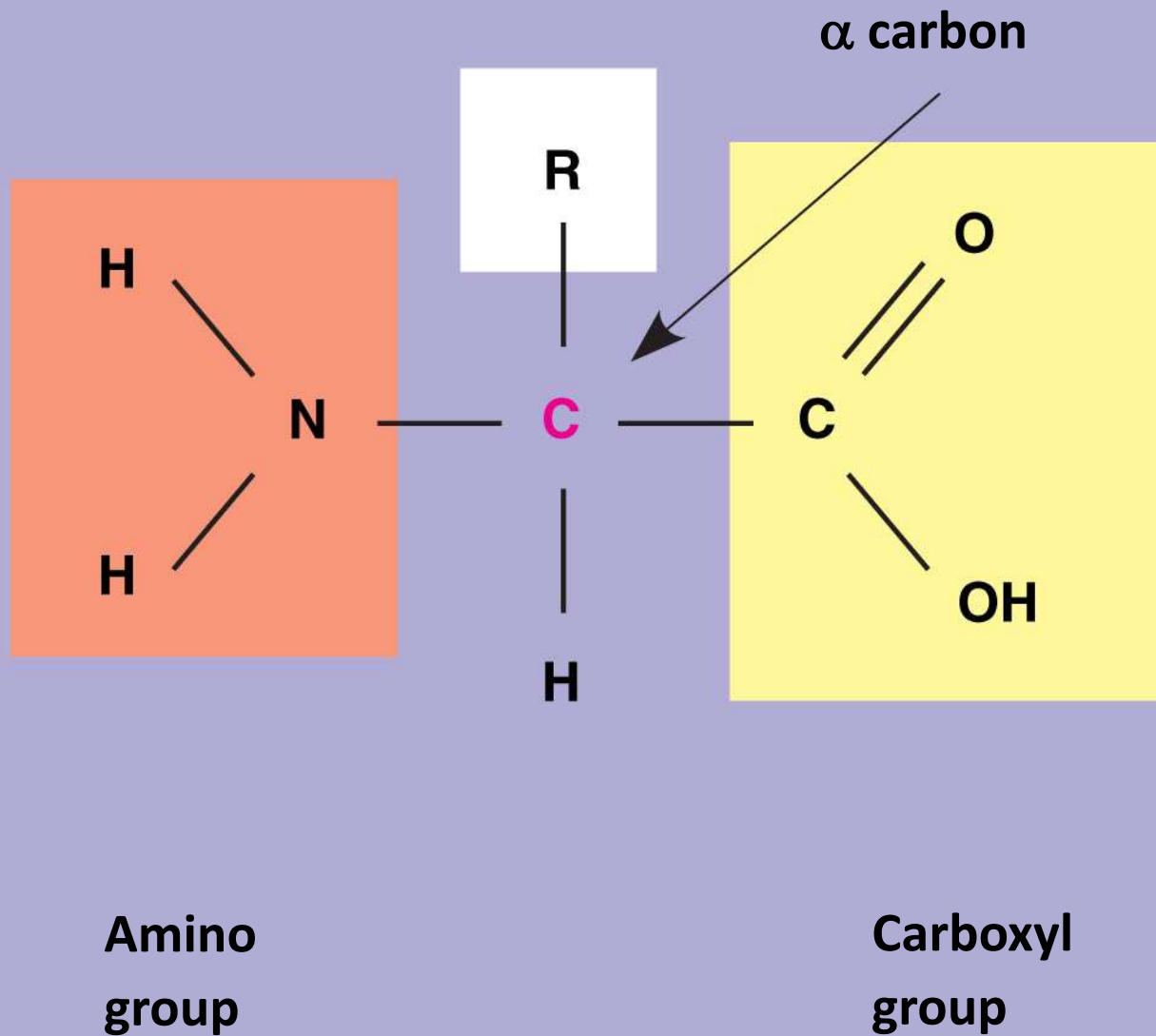


Fig: 5.17a

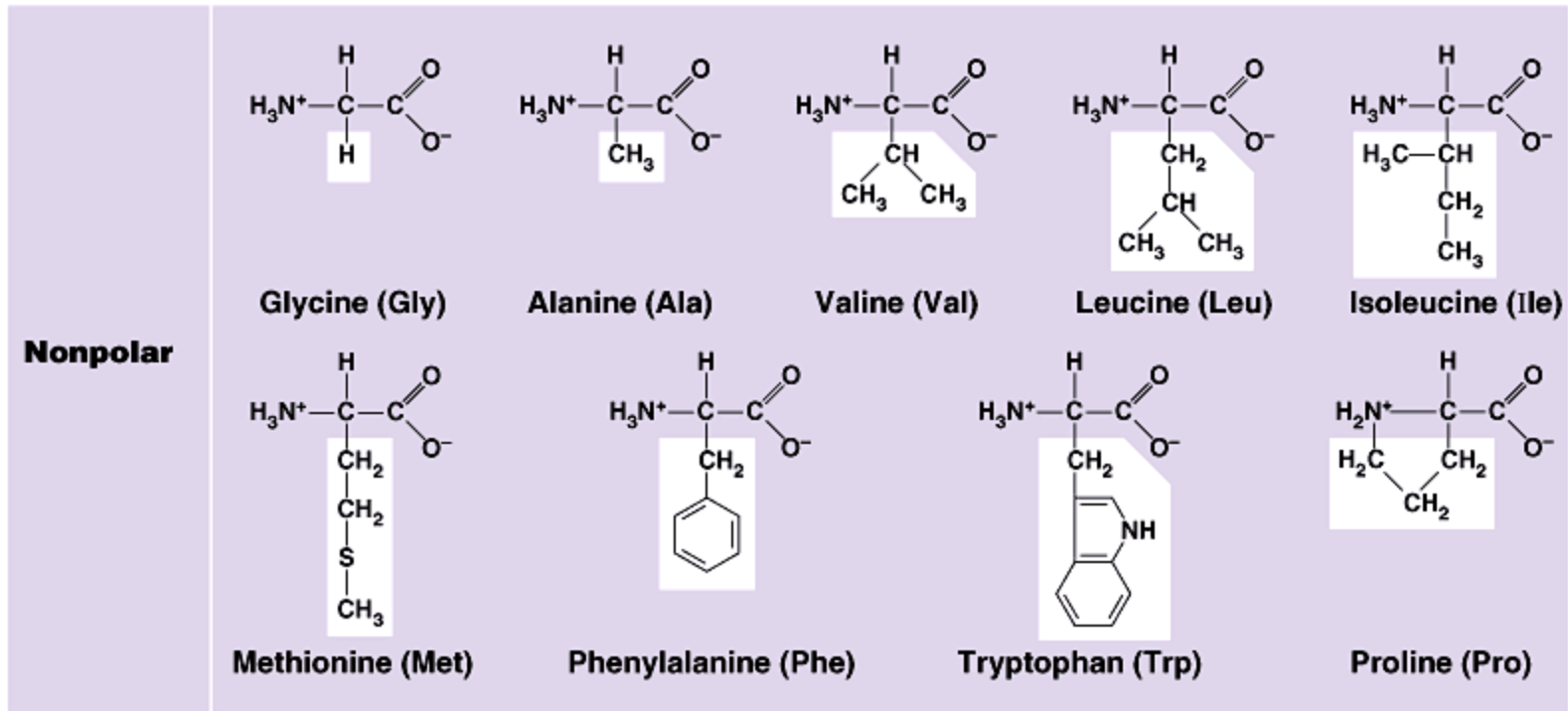
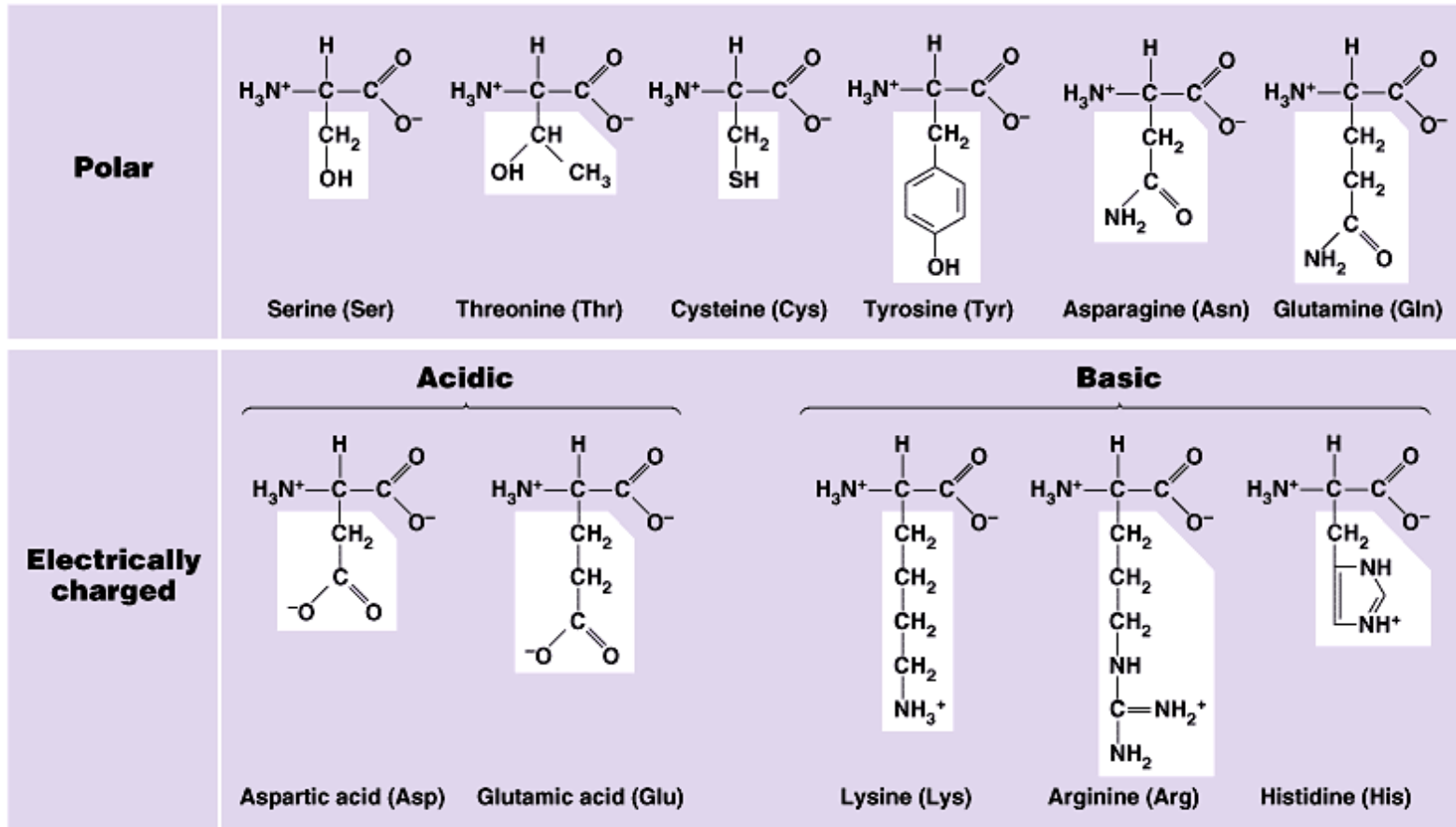
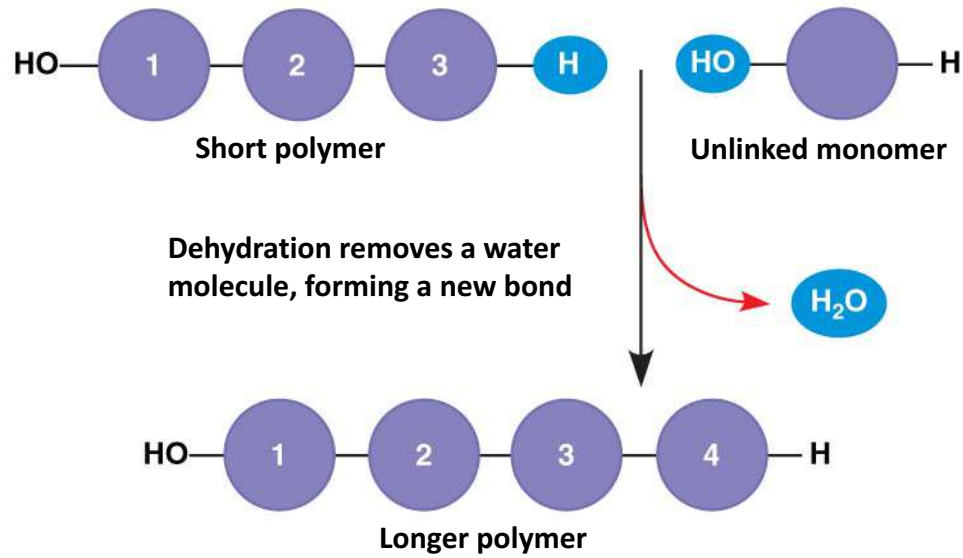


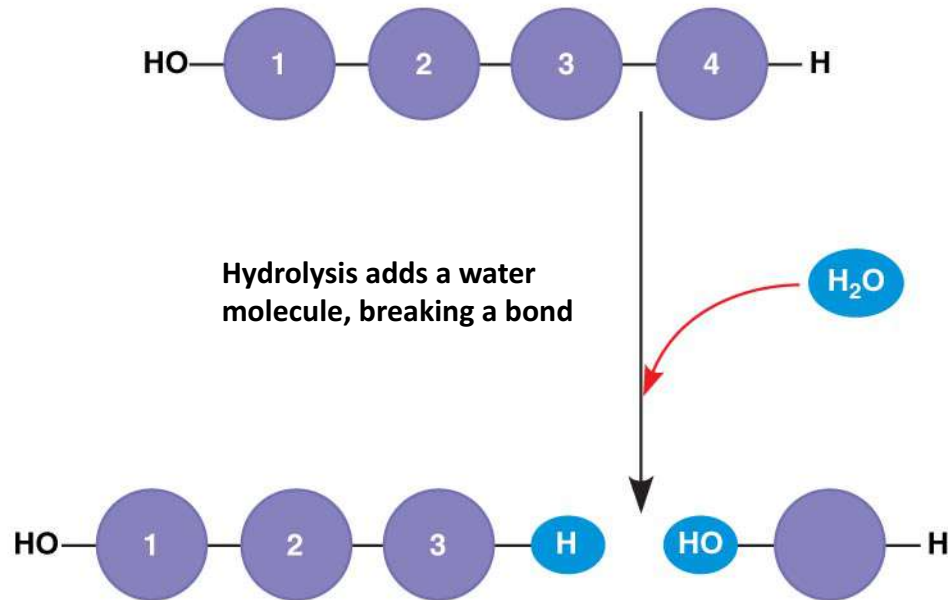
Fig: 5.17b



Dehydration and Hydrolysis Reactions again

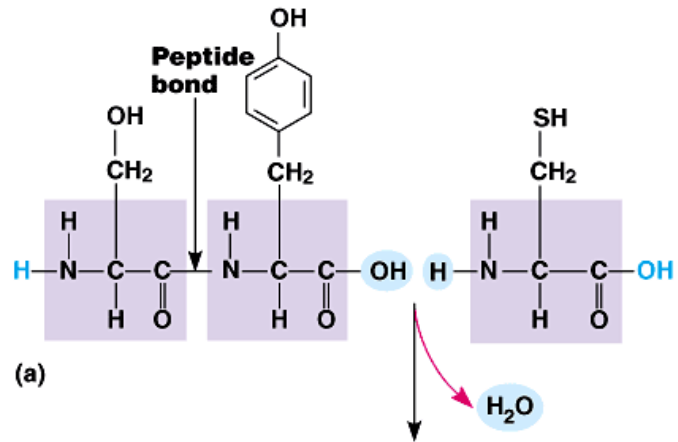


(a) Dehydration reaction in the synthesis of a polymer

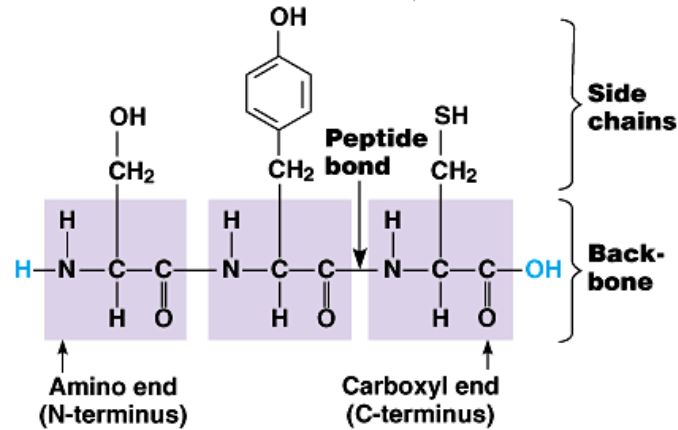


(b) Hydrolysis of a polymer

Peptide Bonding

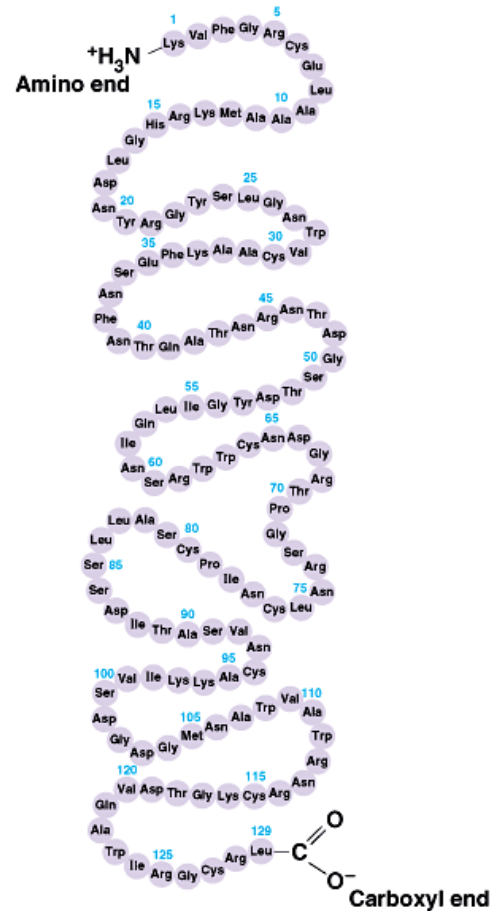


(a)

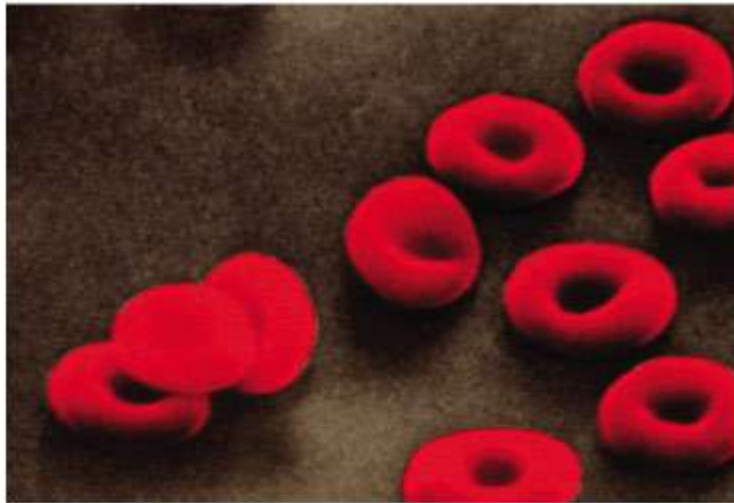


(b)

Primary (1') sequence



Primary Structure is IMPORTANT



10 μ m

Val	His	Leu	Thr	Pro	Glu	Glu	...
1	2	3	4	5	6	7	

(a) Normal red blood cells and the primary structure of normal hemoglobin

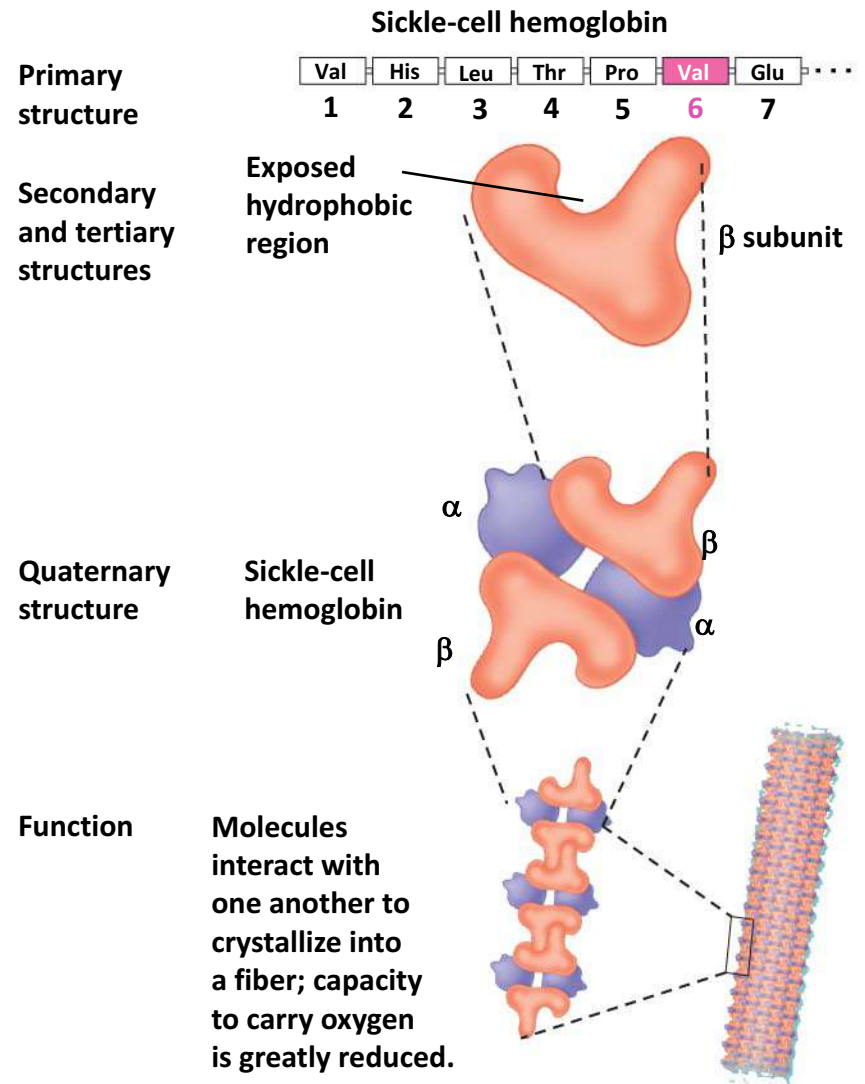
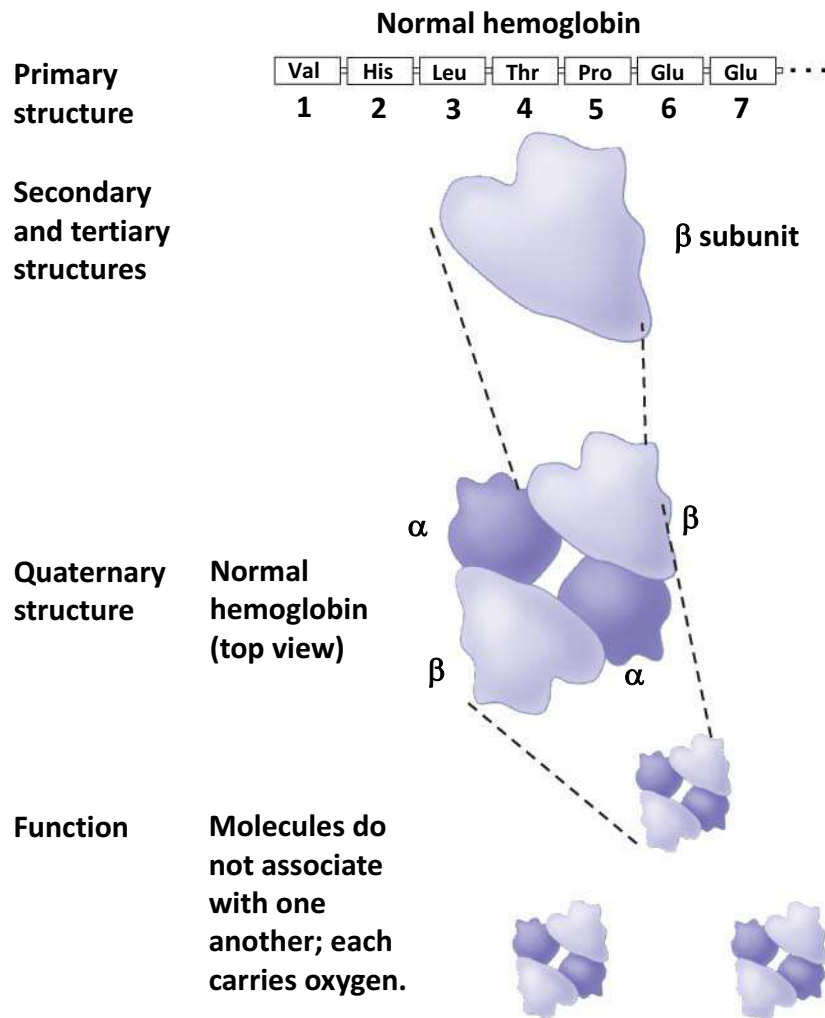


10 μ m

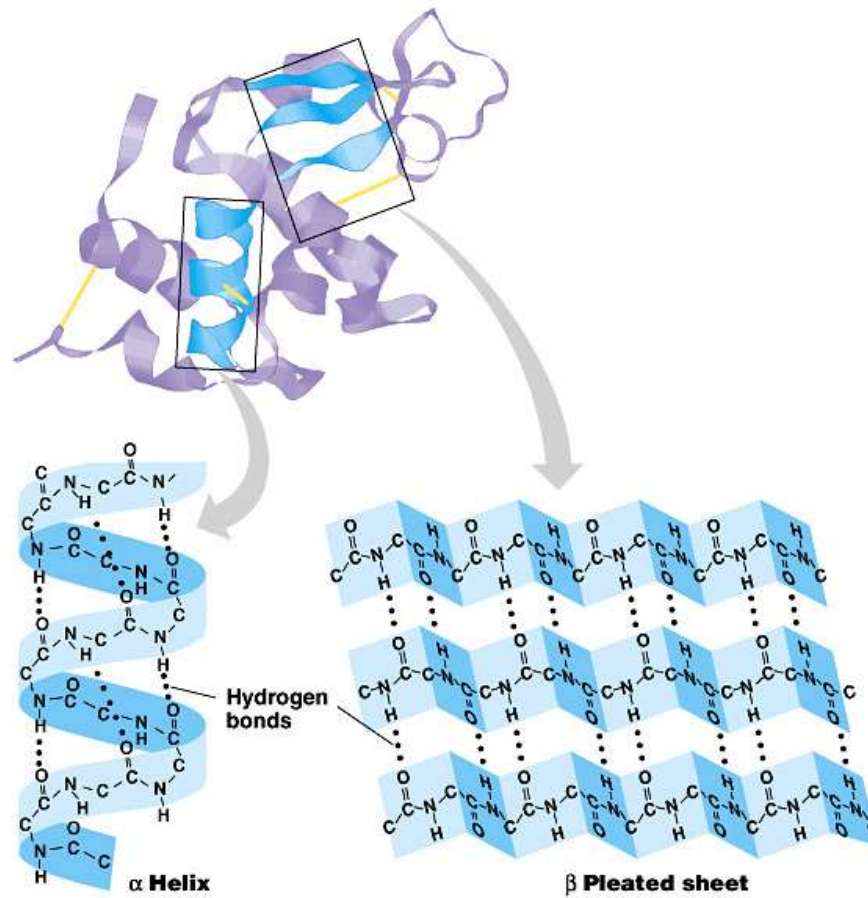
Val	His	Leu	Thr	Pro	Val	Glu	...
1	2	3	4	5	6	7	

(b) Sickled red blood cells and the primary structure of sickle-cell hemoglobin

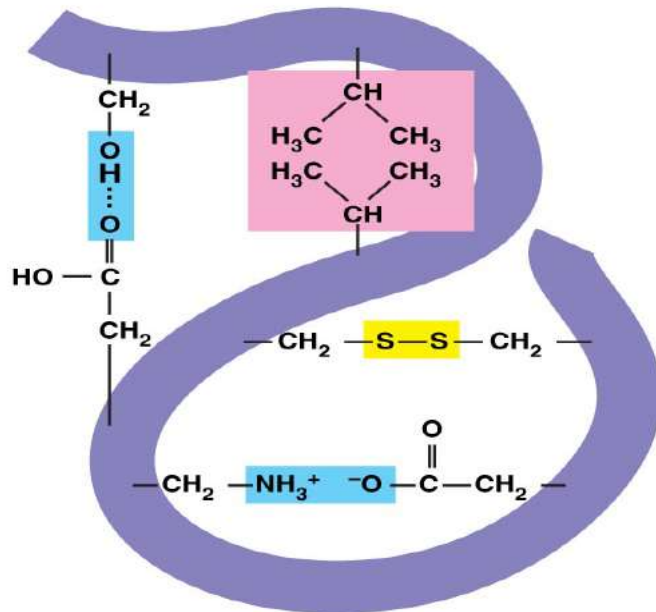
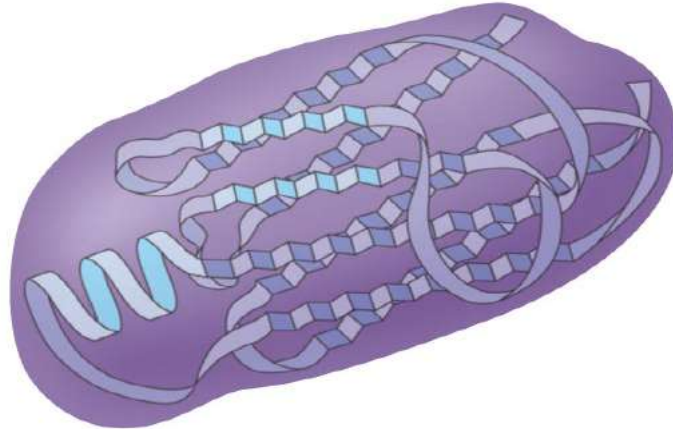
Sickle Cell and Oxygen transport



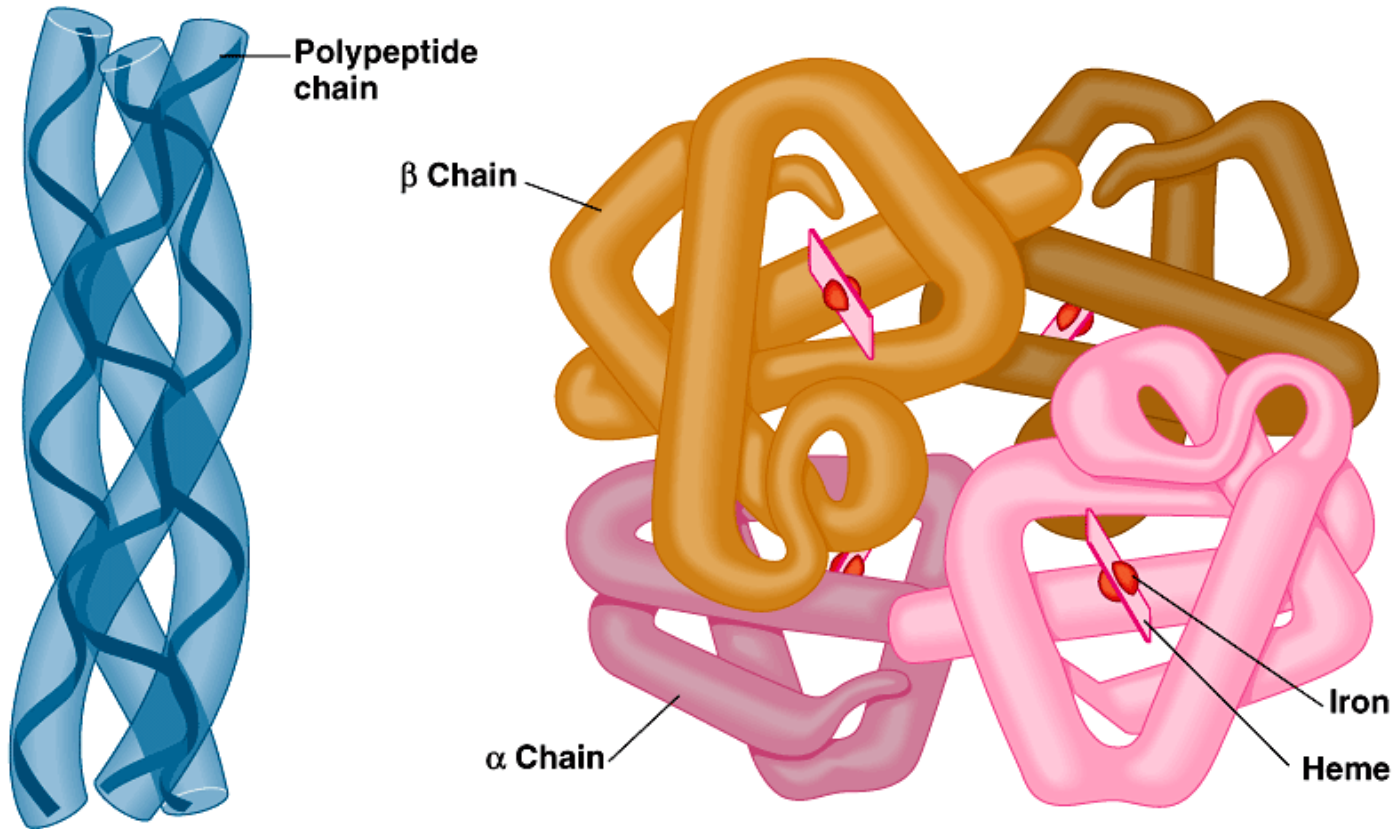
2' structure



3' Structure



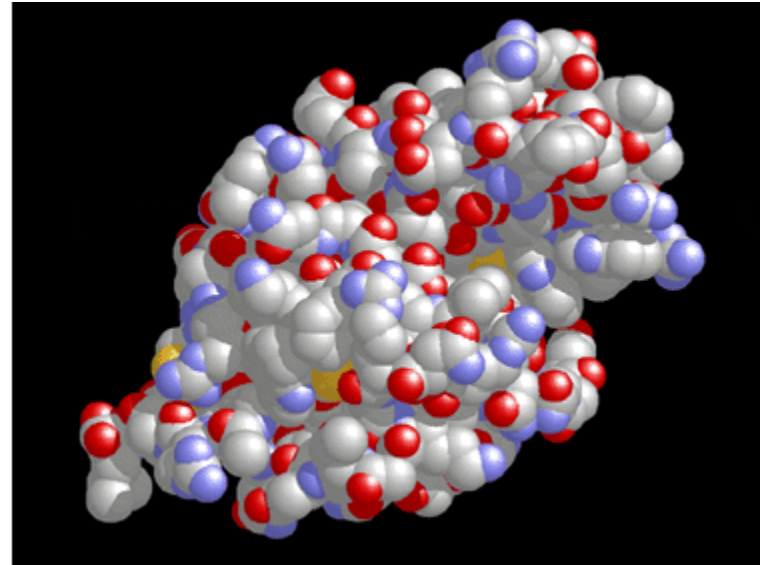
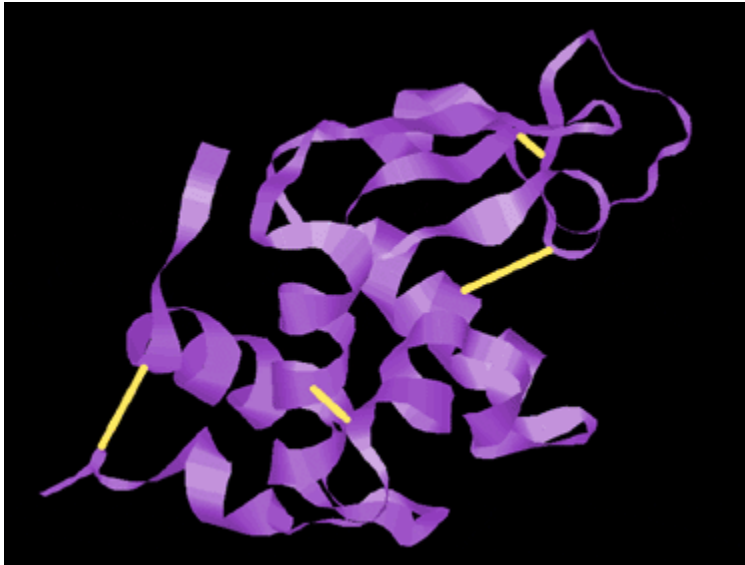
4' Structure



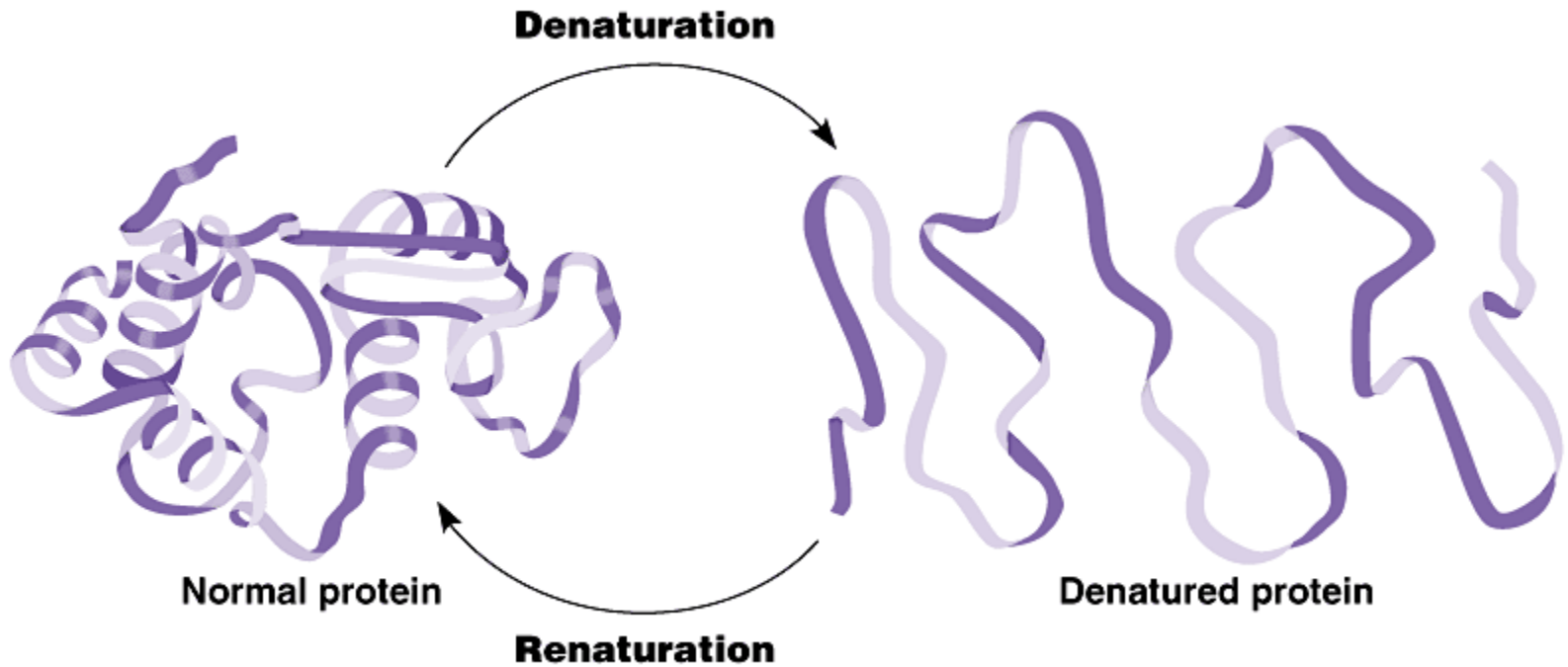
(a) Collagen

(b) Hemoglobin

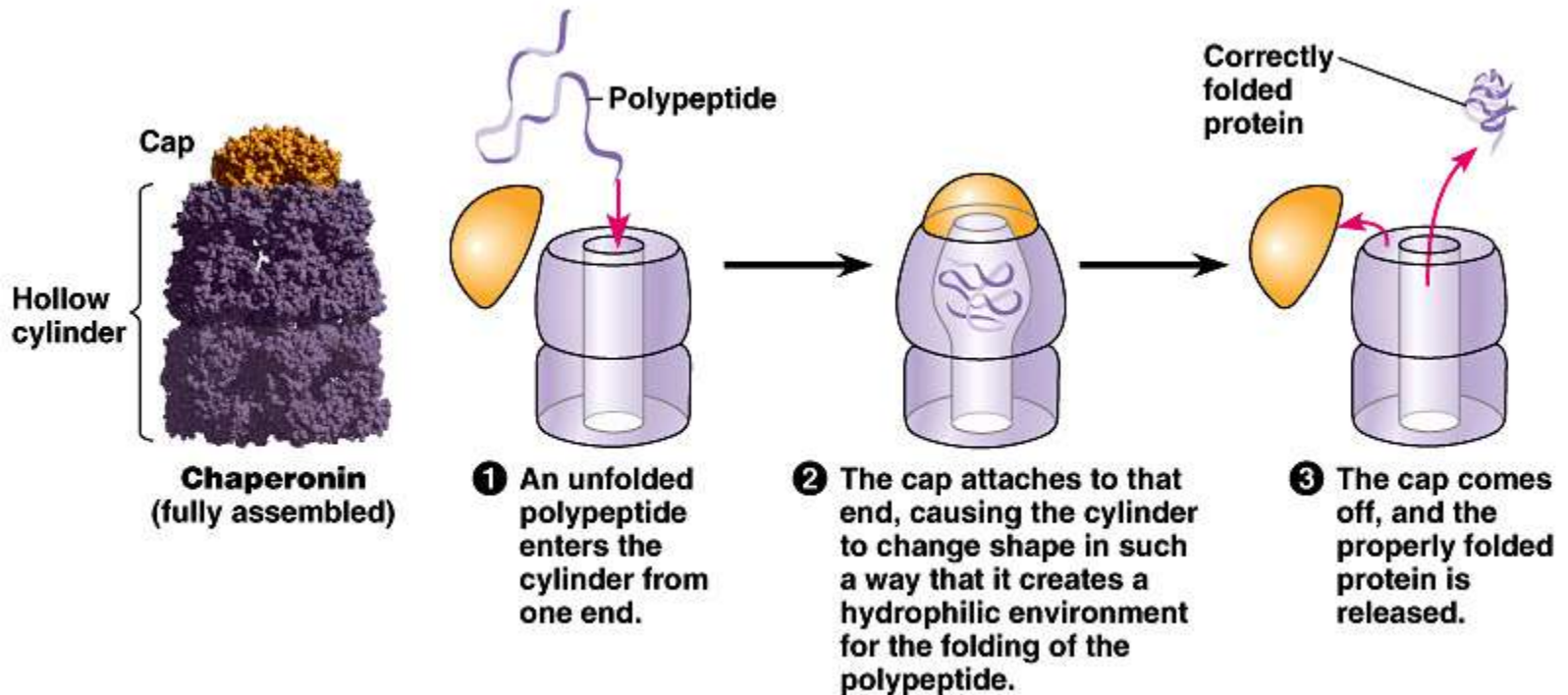
Protein's Natural Form



Denaturation of a protein



Chaperonin



Nitrogen Cycle and Proteins

