Skills to Develop

- differentiate between thermodynamic (equilibrium) and kinetic (timed) approaches to the study of protein folding reactions
- describe techniques to study transient (kinetic) and long-lived (thermodynamic) intermediates in protein folding
- describe the following intermediates in protein folding: molten globule, X-Pro isomers; Disulfide bond intermediates
- interpret spectral and chromatographic data from protein folding studies and use this to determine or explain a mechanism for folding
- describe properties of folded, unfolded, molten globule, and intrinsically disordered proteins
- explain the difference between the environments for protein folding when performed in vitro and in vivo
- state the role of molecular chaperones in in vivo protein folding
- describe differences in disulfide bond occurrence in cytoplasmic and extracellular proteins

• Topic hierarchy

Thumbnail: Structure of human hemoglobin. The proteins α and β subunits are in red and blue, and the iron-containing heme groups in green. From PDB: 1GZX. Image used with permission (GNU; Proteopedia Hemoglobin).

Contributors

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