Chapter 4 – The Three Dimensional Structure of Proteins

4.1 Overview of Protein Structure

The following sub-sections are important:

* The Introduction
* A Protein’s Conformation is Stabilized Largely by Weak Interactions
* The Peptide Bond is Rigid and Planar

4.2 Protein Secondary Structure

The following sub-sections are important:

* The Introduction
* The α-Helix Is a Common Protein Secondary Structure
* Amino Acid Sequence Affects Stability of the α-Helix
* The β Conformation Organizes Polypeptide Chains into Sheets
* β Turns Are Common in Proteins

4.3 Protein Tertiary and Quaternary Structure

The following sub-sections are important:

* The Introduction
* Fibrous Proteins Are Adapted for a Structural Function
* Structural Diversity Reflects Functional Diversity in Globular Proteins
* Myoglobin Provides Early Clues about the Complexity of Globular Proteins Structure
* Globular Proteins Have a Variety of Tertiary Structures
* Some Proteins or Protein Segments Are Intrinsically Disordered

4.4 Protein Denaturation and Folding

The following sub-sections are important:

* The Introduction
* Loss of Protein Structure Results in Loss of Function, the information in Figures 4-25 & 4-26 are really important
* Some Proteins Undergo Assisted Folding