**Protein Structure**

Here’s a simple summary of the four levels of protein structure:

1. **Primary Structure**: This is the sequence of amino acids in a polypeptide chain.
2. **Secondary Structure**: This refers to the local twisting or folding of the polypeptide chain into structures like alpha-helices and beta-pleated sheets, stabilised by hydrogen bonds between backbone atoms.
3. **Tertiary Structure**: This is the overall three-dimensional shape of a single polypeptide chain. It’s formed by interactions between the amino acids' side chains (R-groups), including polar bonds, hydrogen bonds, ionic bonds, disulfide bridges, and dispersion forces.
4. **Quaternary Structure**: This occurs in proteins with more than one polypeptide chain, where multiple chains interact to form a functional protein. The arrangement of these subunits in space constitutes the quaternary structure.

