

- Different part of the protein start to bond with each other with hydrogen bonds
- The shape of this structure depends on how they are bonded with each other
- Tertiary protein structure
 - A shape described as *globular*
 - α -helices and β -pleated sheets bind either with one another or with others on their kind forming a unity => globular protein
 - Determined by the secondary protein structure
 - In most cases the organisation stops here
- Quaternary protein structure
 - Two or more polypeptides or globular proteins combined together to make a single functional protein
 - Example: haemoglobin, if it's not folded like this, it doesn't function
- If the smallest detail is different (a folding or an amino acid), this specific protein stops being this protein or it stops functioning
- Important proteins:

Protein	Function
Rubisco	The enzyme that catalyses the first reaction of the carbon-fixing reactions of photosynthesis
Insulin	Reduce the blood sugar levels and increase the sugar in body cells
Immunoglobulin	Antibody that recognises antigens as part of the immune response
Rhodopsin	A pigment found in retina, useful in low light conditions
Collagen	Main component of connective tissue, which is abundant in skin, tendons and ligaments
Spider silk	Protein used by spiders for making webs, drop lines, nest building, etc.