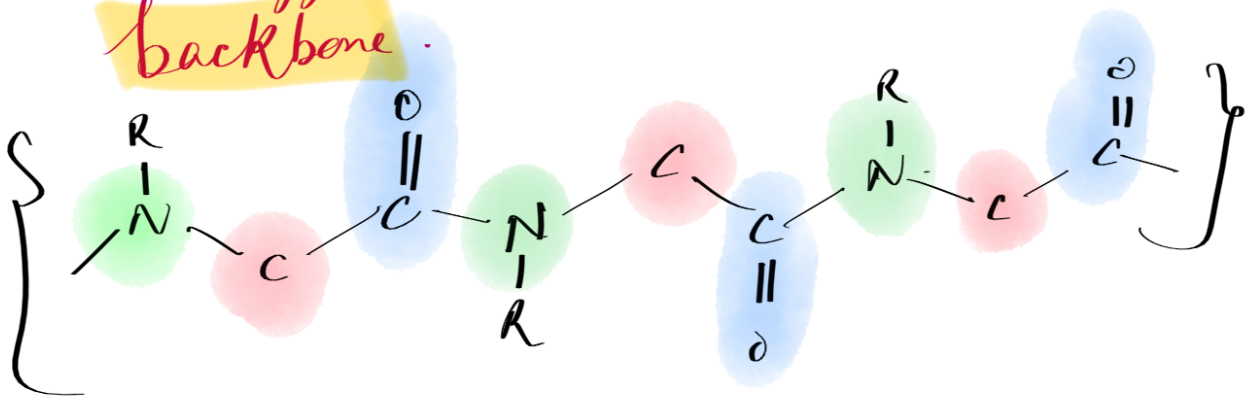
⇒ **Peptide bond** :- forms bond b/w amino group of one amino acid & carboxylic group of another AA

⇒ H_2O molecule is released each time (so basically its condensation rxn.

⇒ The linked series of carbon, Nitrogen & oxygen atoms is the protein backbone.

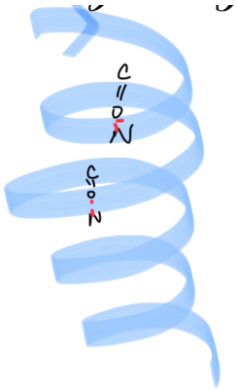


⇒ **Protein Structure** ●

* **The secondary structure** :-

⇒ Alpha Helix :- Right handed coil, H-bond b/w amine & carbonyl group of nearby

amino acid



H-bond

⇒ β- Sheets :- When H-bond stabilise 2 or more H-bonds of Amino-acids.

✱ The Tertiary structure :-

The shape is determined by the characteristics of amino acid involved. (Hydrophobic AA ; Charged Hydrophillic AA)

⇒ UBIQUITIN - (GLOBULAR ; shape)

Hydrophobic core (inside to avoid in contact with H_2O surrounding molecules)

CALCIUM PUMP -

Hydrophobic AA are clustered together inside lipid bilayer membrane

→ TATA-BINDING Protein – Creates the landmark that indicates the start of the transcript site.

→ Charged AA always protein to interact with molecules that've complementary charges

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Protein function ⟹ Protein
⟸ shape

→ Haemoglobin :- Has a pocket to fit in the Haeme group (small molecule with IRON atom, that binds with oxygen atom)

The Quaternary Str

→ Two or more polypeptide

chain come together 1 functional molecule with several subunits.

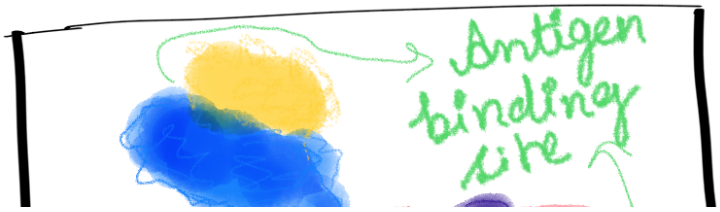
Surface diagram :- Areas on protein that are accessible to water molecules

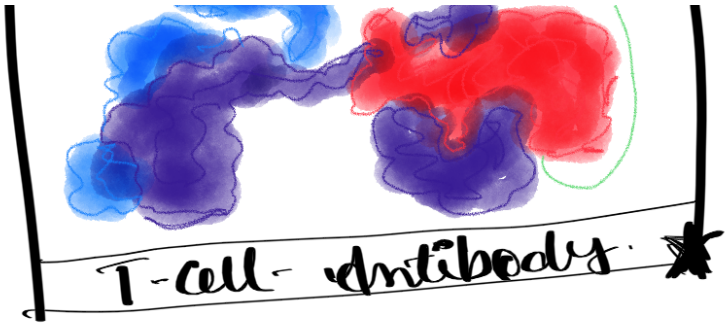
Ribbon / cartoon diagram :- To represent the α-helix & β-pleated sheet. (Basically for protein)

* Most proteins are smaller than wavelength of light.

Shape and function

- Defense :- The flexible arms of antibody protect us from disease / viruses by recognising





L binding to the pathogens by and targeting them for destruction

- Communication :- Hormone insulin is a small stable protein that can easily maintain its shape, while travelling through blood, regulate the blood glucose level

X