

* DNA motifs :-

→ Cause binding of regulatory protein / transcription factor to DNA.

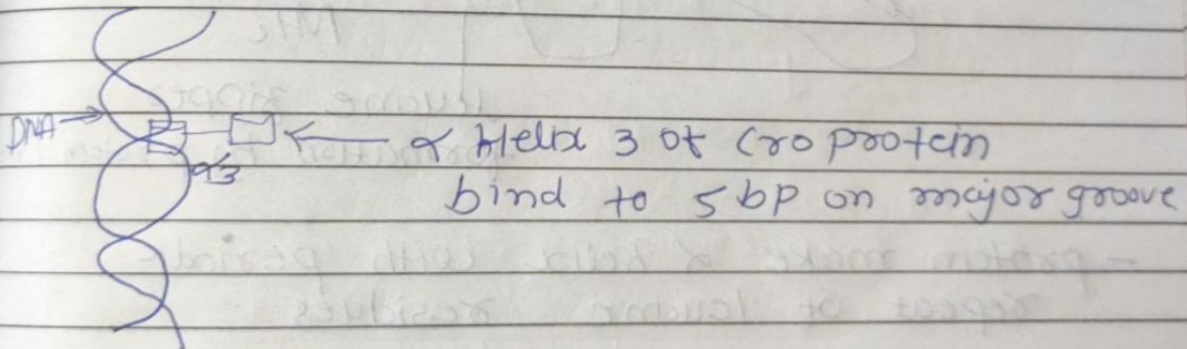
→ Binding is - High affinity
- Involve small region of protein
- Maintained by H-bond, ionic interaction & van der Waals forces

→ Structural motif of DNA are

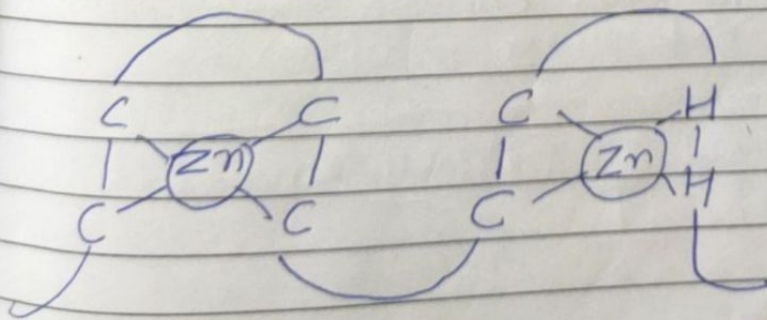
↓
Zinc finger
Leucine zipper
Helix-turn-Helix

→ Helix-turn-Helix Binding motif :-

eg. Cro protein has 3 Antiparallel alpha & 3 beta sheets.

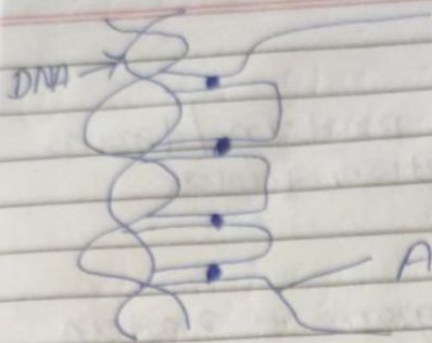


→ Zinc finger binding motif :-



zinc finger formation in amino acid chain of protein

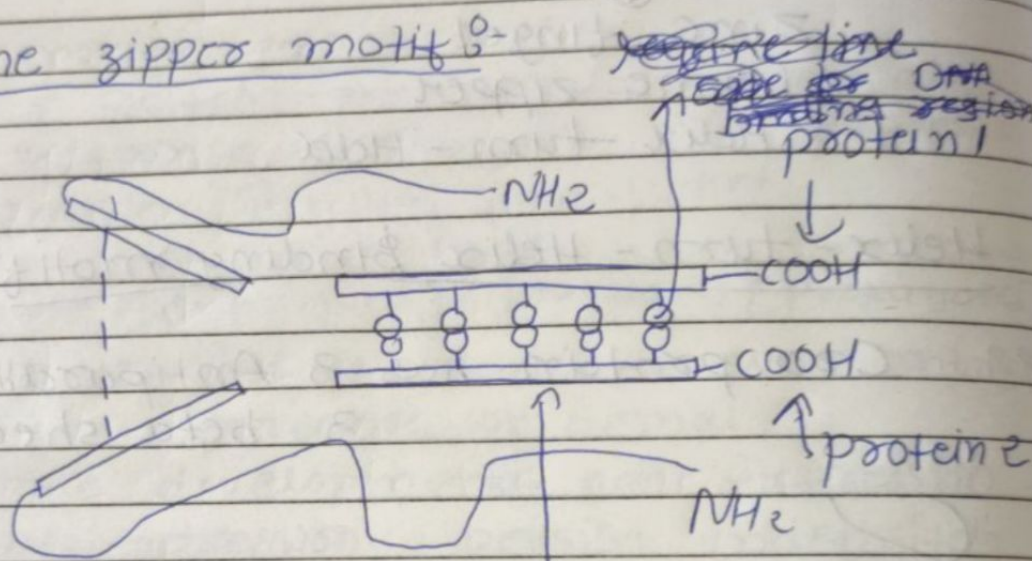
C - Cysteine
H - Histidine



Amino acids of protein with zinc finger

- Binding of protein to successive major grooves of DNA by zinc finger motif.

→ Leucine zipper motif



- protein make a helix with periodic repeat of leucine residues