

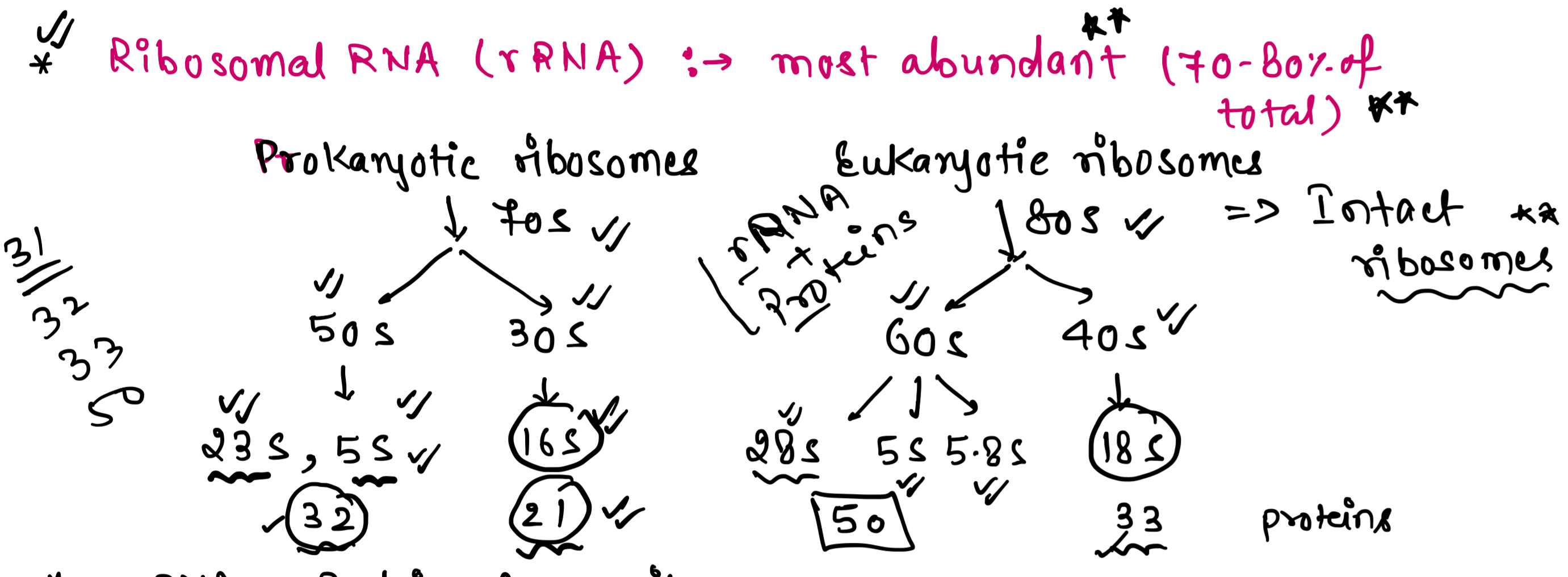
RNA or Ribonucleic acid

\* RNA or ribonucleic acid is a single chain polynucleotide which function as carrier of coded genetic information from DNA to cytoplasm for taking part in polypeptide synthesis.

RNA is genomic (genetic) in some viruses like TMV, HIV, influenza.  
 \* RNA is double stranded in reoviruses, wound tumor virus, Rice Dwarf virus and Mycophages.

\* There are six type of RNAs (rRNA, mRNA, tRNA, genomic (genetic), small nuclear and small cytoplasmic)

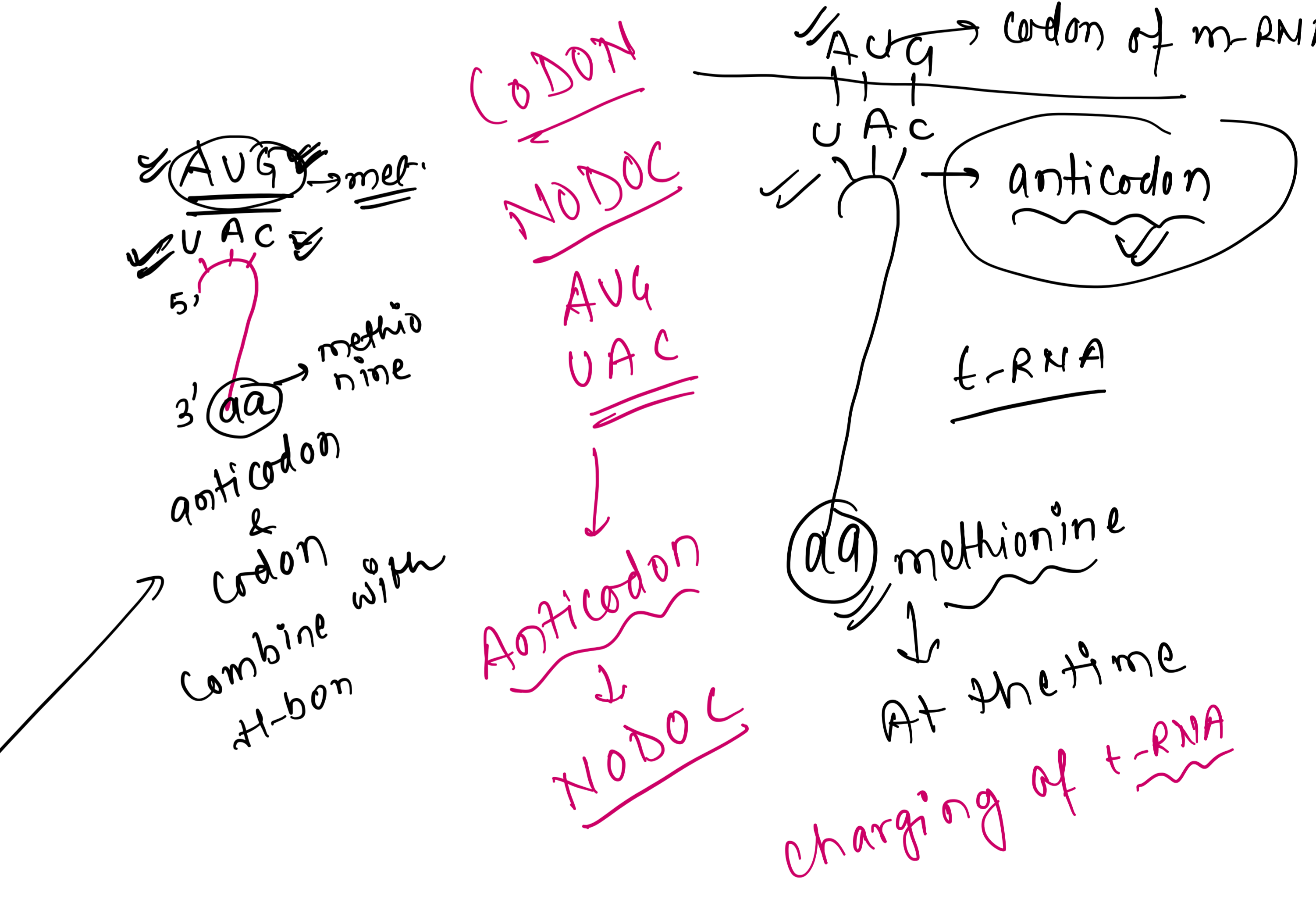
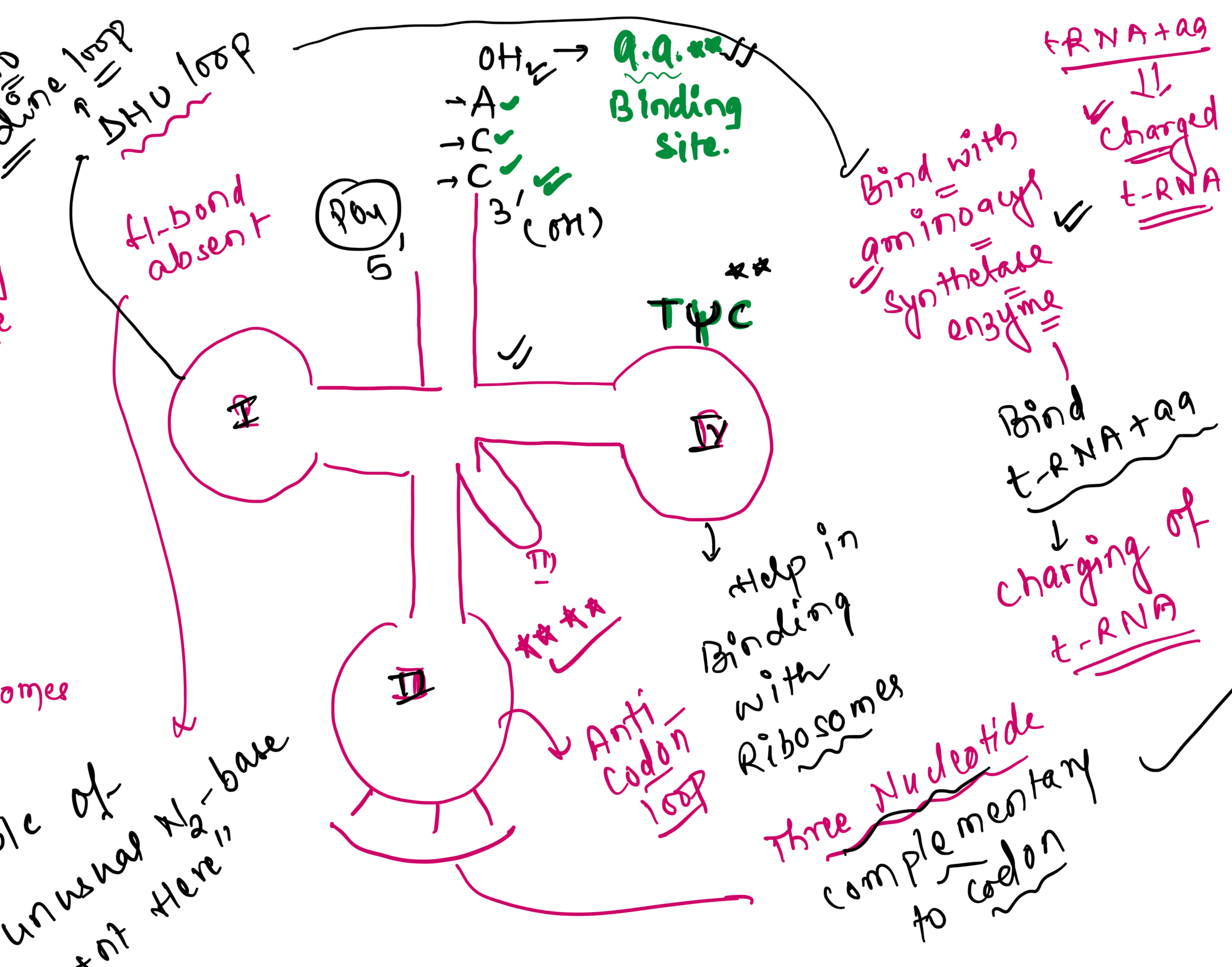
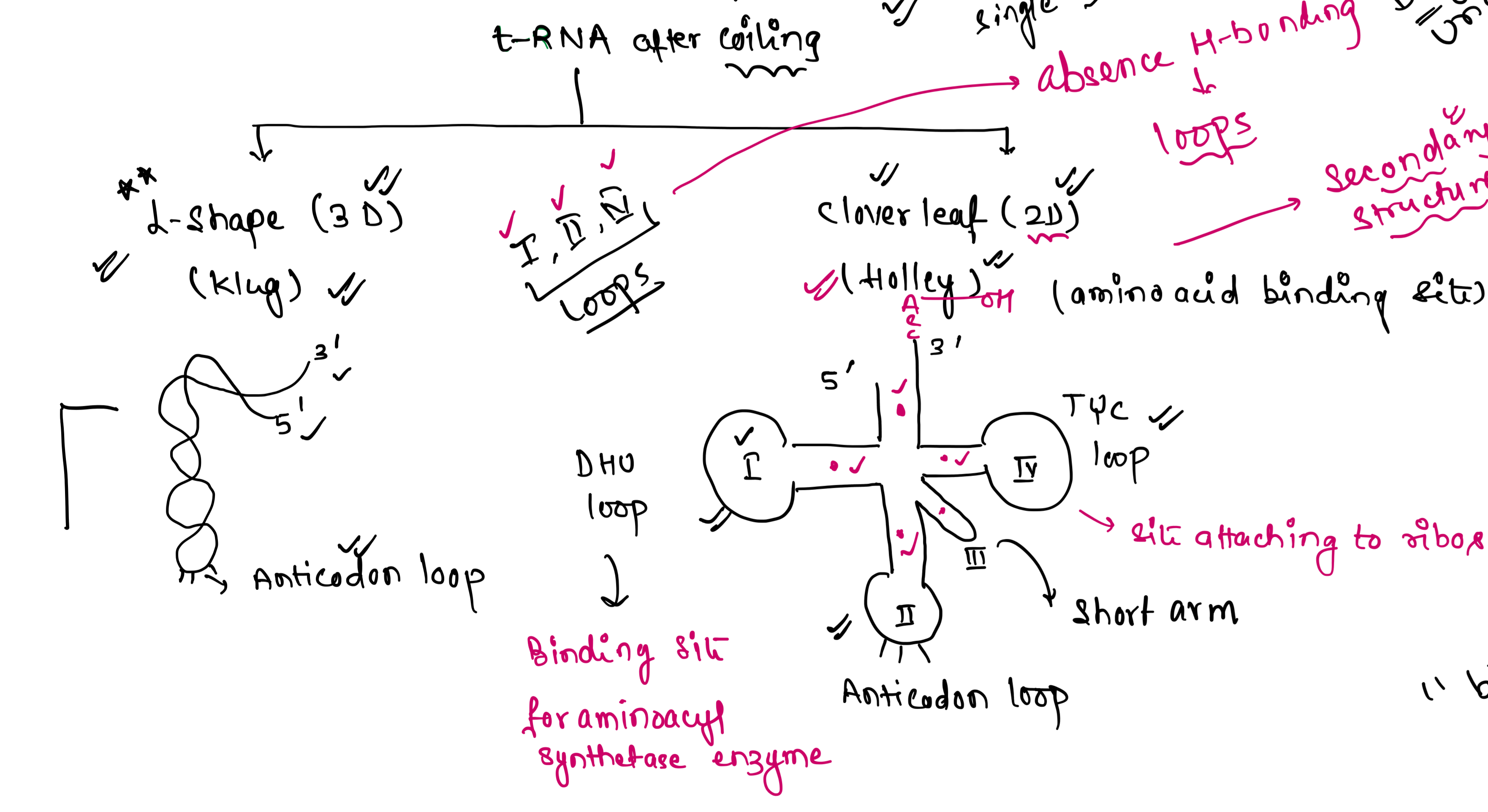
\* Out of these first three (rRNA, mRNA, tRNA) major class that are involved in gene expression.



\* rRNAs + Protein forms ribosomes (15% of total RNA) => "Smallest RNA" use to adapt a.a.

\* Transfer RNA (tRNA) => The Adaptive molecule. It is also called soluble or sRNA before the genetic code was postulated. However, its role as an adapter molecule was assigned much later.

From the very beginning of the proposition of code, it was clear to Francis Crick that there has to be a mechanism to read the code and also link it to the amino acids, because amino acids have no structural specialities to read the code uniquely. He postulated the presence of an adapter molecule that would on one hand read the code and on other hand would bind to specific amino acids.



Messenger RNA (mRNA) -> long RNA constitutes 2-5% of total cellular RNA content of cells.  
 => least abundant among RNA  
 => life span is min. among RNA

t-RNA	r-RNA	m-RNA
→ smallest	→ most abundant	→ least abundant
→ contain Nodoc ↓ Anticodon	→ use to form ribosomes → ribosomes are protein factory of cell.	→ least life span → codon
→ unusual nitrogen bases		

"all RNA are formed from DNA by process of transcription"