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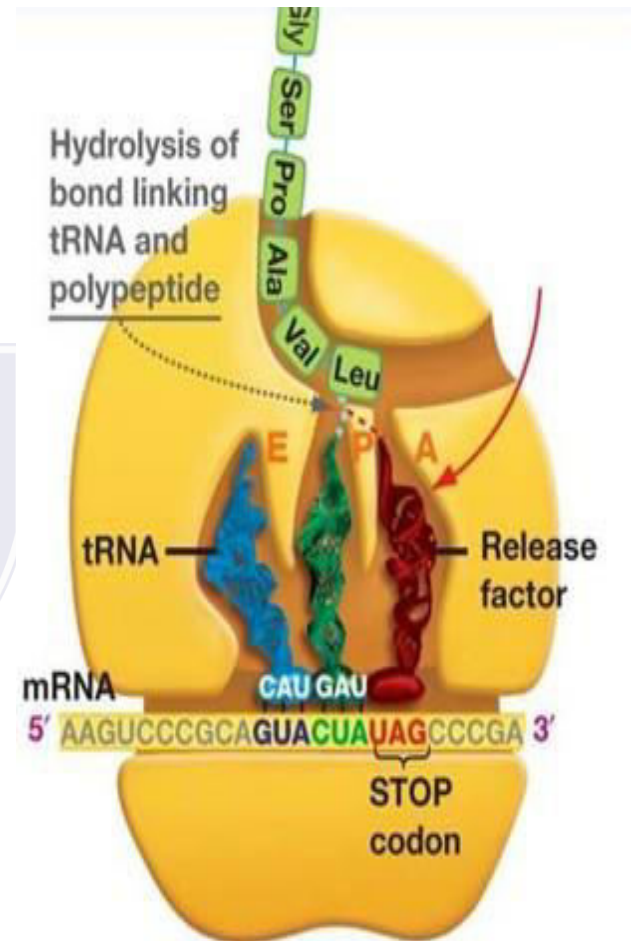
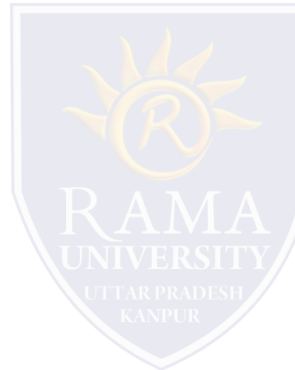
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FACULTY OF ENGINEERING & TECHNOLOGY  
DEPARTMENT OF BIOTECHNOLOGY

Termination is signaled by a stop codon.

1. Stop codons **DO NOT** code for amino acids and thus **DO NOT** have tRNAs.

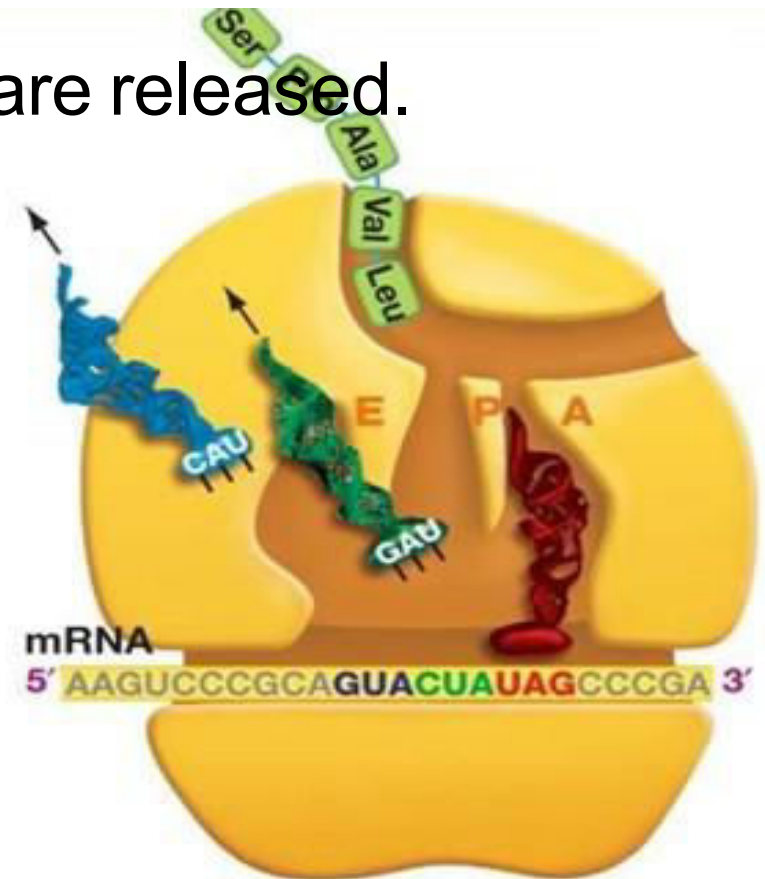
2. Release Factors (RF) which look like tRNA binds to the A site.



1. Release factor binds to stop codon.

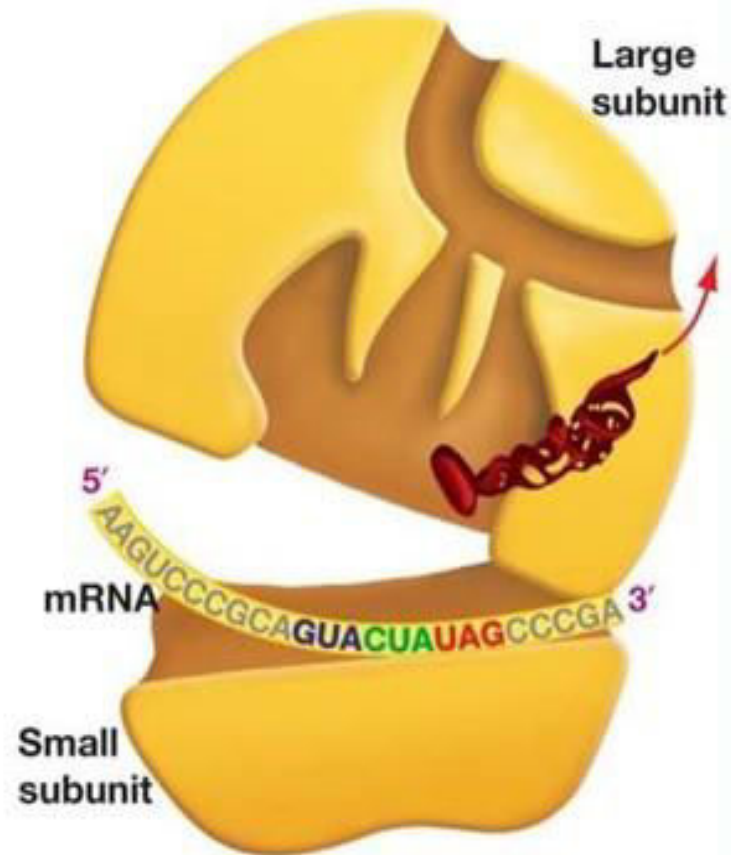
4. Amino acid chain is released.

5. tRNA at E site and P site are released.



2. Polypeptide is released.

- Ribosome two units break free from the mRNA and RF is released.



**3. Ribosome subunits separate.**

## TERMINATION OF TRANSLATION



**1.** When translocation opens the A site and exposes one of the stop codons, a protein called a release factor fills the A site. The release factor catalyzes the hydrolysis of the bond linking the tRNA in the P site with the polypeptide chain.

**2.** The hydrolysis reaction frees the polypeptide, which is released from the ribosome. The empty tRNAs are released either along with the polypeptide or when the ribosome dissociates following release of the polypeptide.

**3.** The ribosome then separates from the mRNA, and the two ribosomal subunits dissociate. The subunits are ready to attach to the start codon of another message and start translation anew.