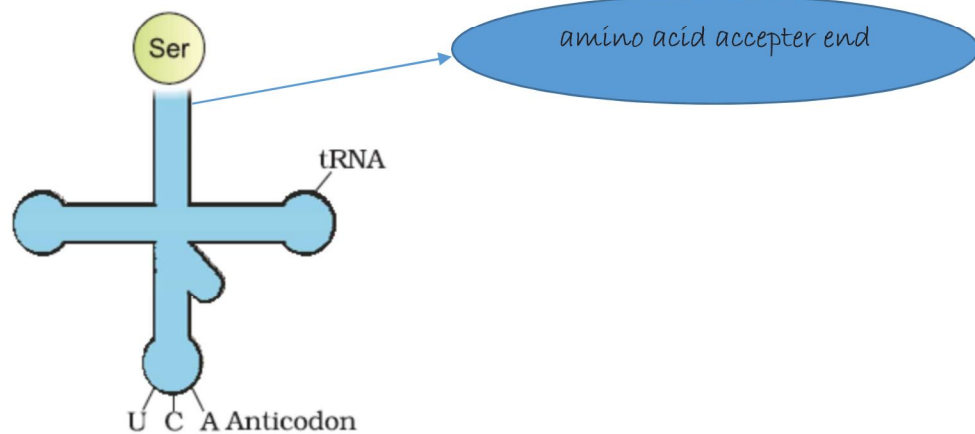


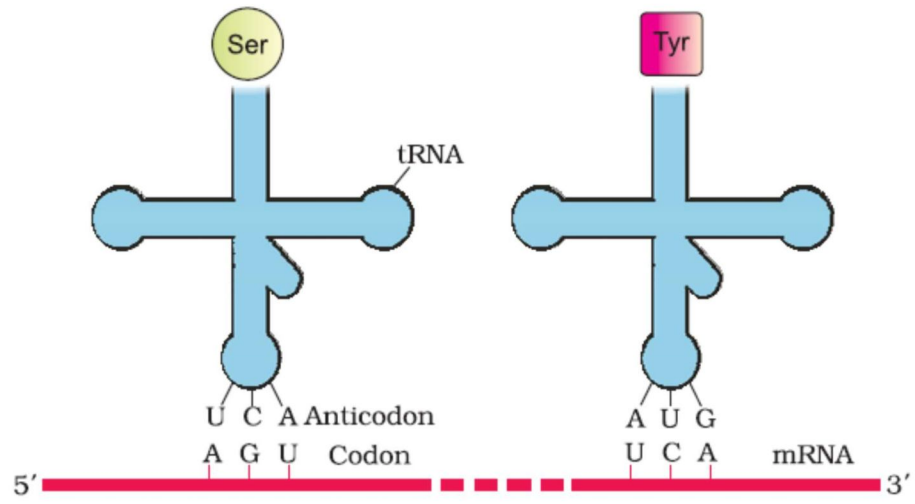
# The tRNA- the Adapter Molecule

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From the proposition of genetic code, Francis Crick clearly thought that there has to be a mechanism to read the code and to 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. The tRNA, then called sRNA (soluble RNA), was known before the genetic code was postulated. The tRNA has an anticodon loop that has bases complementary to the code, and it also has an amino acid acceptor end to which it binds to amino acids. tRNAs are specific for each amino acid (Figure 6.12).



For initiation, there is another specific tRNA that is referred to as initiator tRNA. There are no tRNAs for stop codons. The secondary structure of tRNA has the looks like a clover-leaf. In actual structure, the tRNA is a compact molecule which looks like inverted L - shaped.



*The adapter molecule*