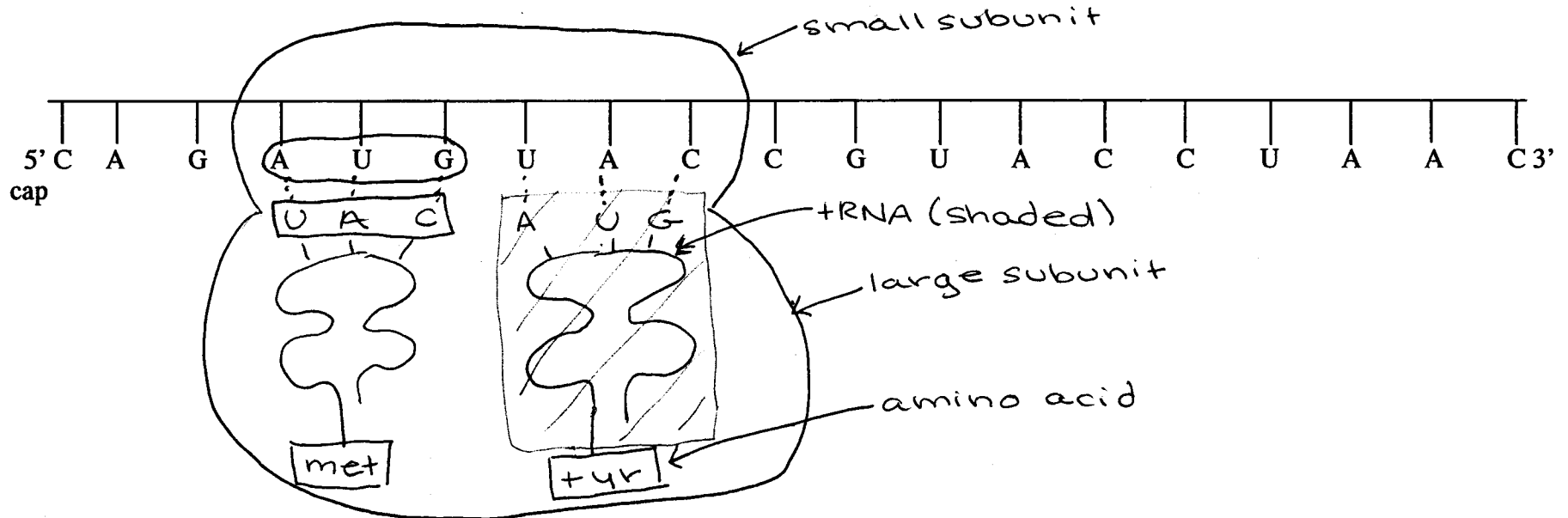


The molecule below is mRNA. How can you tell? Has Us instead of Ts, 5' end is capped

This molecule was produced by the processes of transcription and modification that occur in the nucleus of a eukaryotic cell.



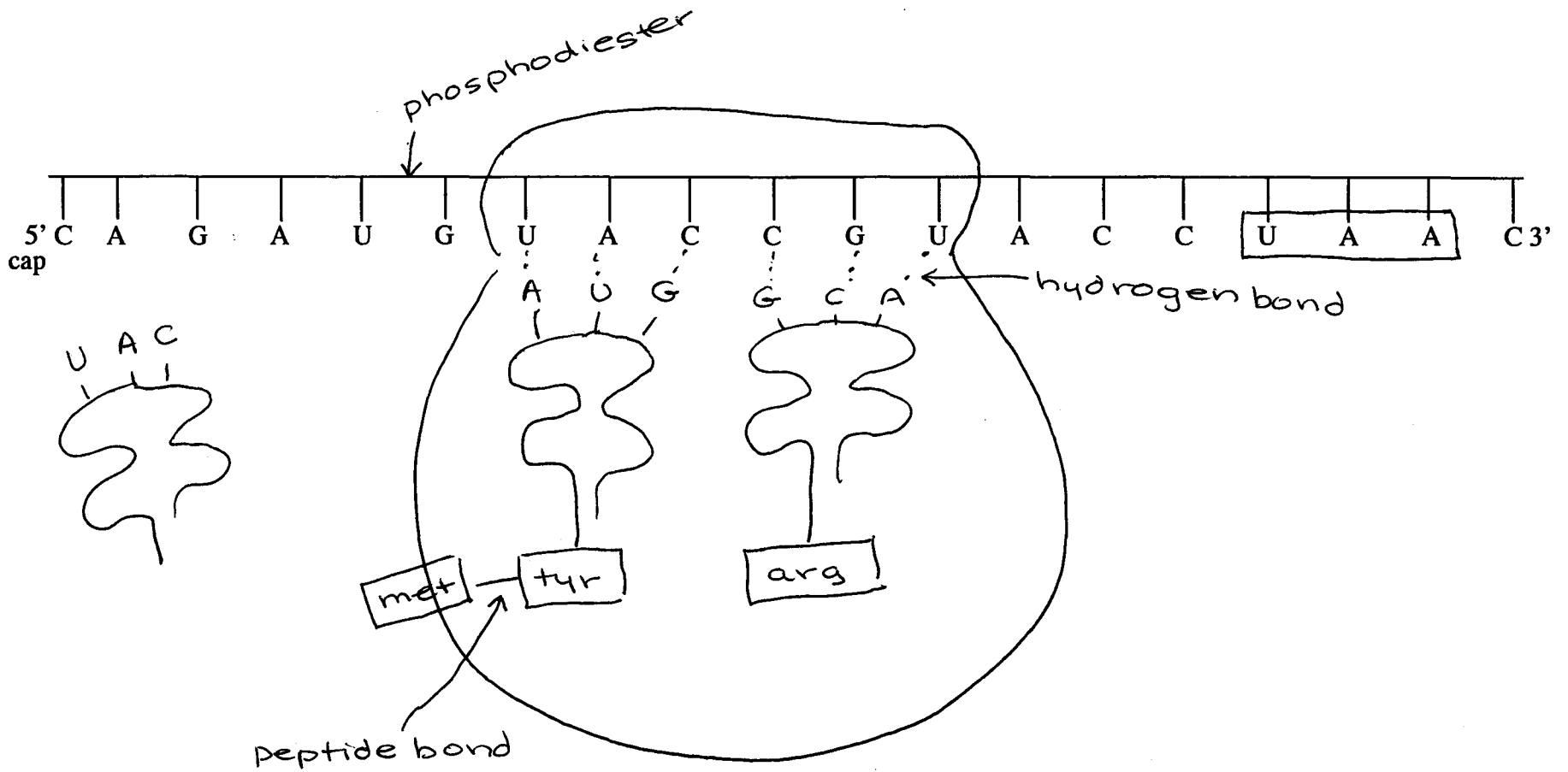
Draw the first step in the process of translation. Label the following in your diagram:

- small and large subunits of the ribosome
- a tRNA
- an amino acid

Circle a codon and put a box around an anticodon

Where does this process take place in a eukaryotic cell? cytoplasm where in a prokaryotic cell? cytoplasm

Now think a little further ahead in the process. On the next page you are going to draw how this would look after the first translocation (sliding along the mRNA) of the ribosome.



Find the stop codon and put a box around it. .

If fully translated, this mRNA would result in a polypeptide (protein) 4 amino acids long.

Use your genetic code to identify the complete sequence of the polypeptide coded by this mRNA.

met-tyr-arg-thr

Label a peptide bond, a hydrogen bond and a phosphodiester bond. .