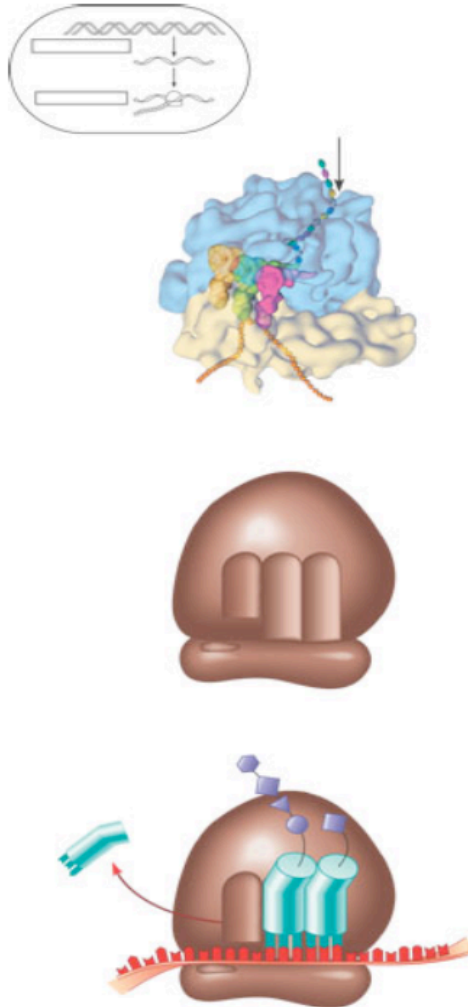


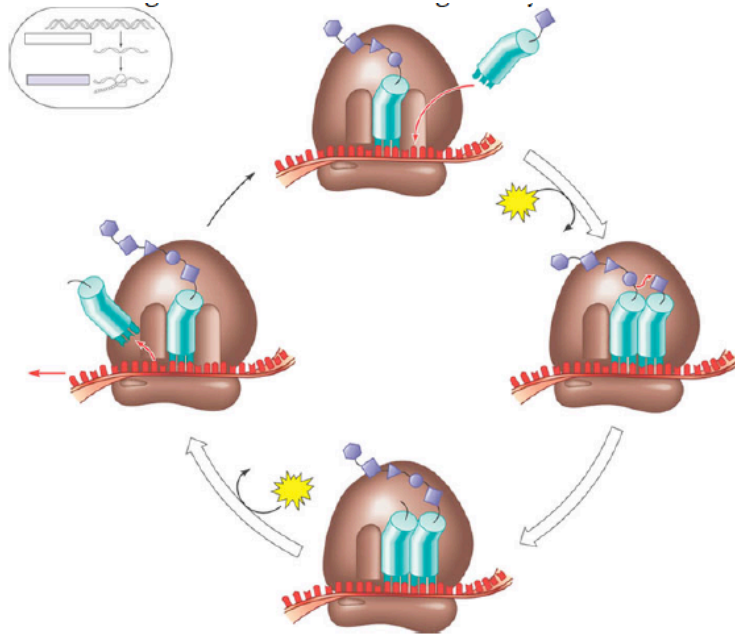
Chapter 17B Review

1. Describe the structure and function of transfer RNA.
2. Why are aminoacyl-tRNA synthetases important for successful translation and protein synthesis?
3. BRIEFLY explain the “wobble” hypothesis
4. Describe the structure and function of ribosomal RNA – use the diagram below.

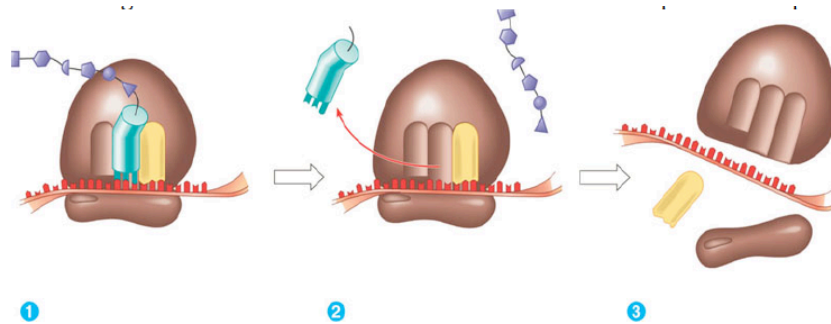


5. Detail the process of initiation of translation.

6. Use the diagram below to detail elongation cycle of translation. Explain each step.



7. Use the diagram below to detail the termination of translation. Explain each step.



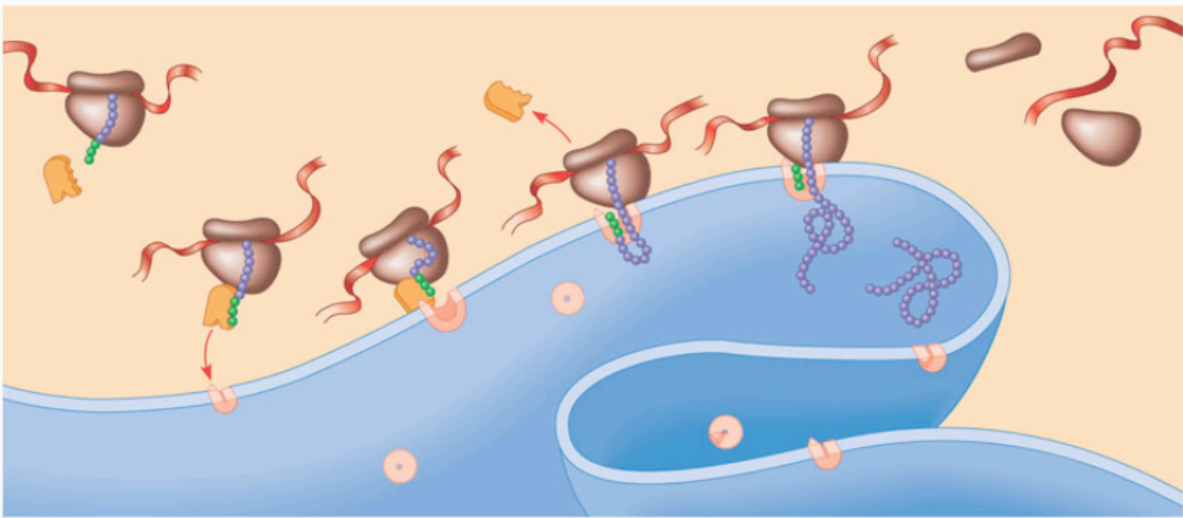
8. What are polyribosomes?

9. What is an example of a post translational modification of a protein?

10. What is a signal peptide?

11. What is the function of signal recognition particles?

12. Use the diagram below to highlight the signal mechanism for targeting proteins to the ER.



13. Define the following terms:

- a. Mutations
- b. Point mutations
- c. Base pair substitution
- d. Missense
- e. Nonsense
- f. Insertions
- g. Deletions
- h. Frameshift mutation
- i. Mutagen

14. How has the historical concept of a gene been “redefined” during the last 100 years?

15. Use the diagram below to help you explain the brief “whole” picture.

