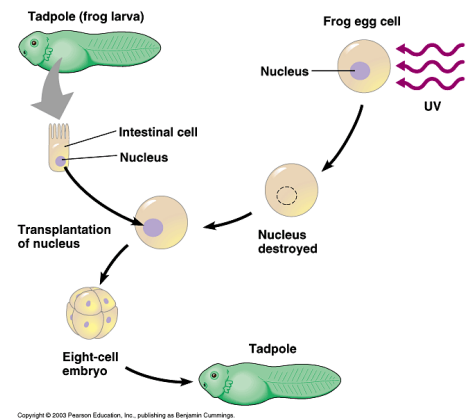
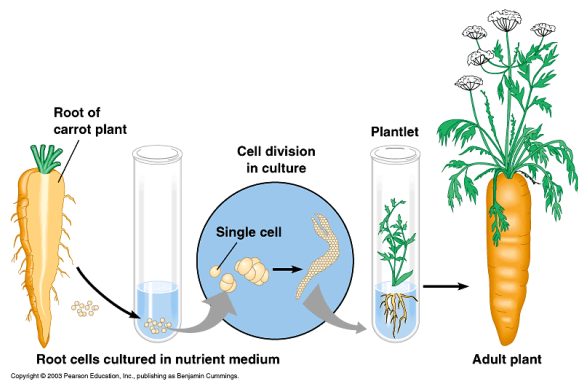


CHAPTER 11 – The Control of Gene Expression

Chapter Reading Guide

1. Explain how selective gene expression yields a variety of cell types in multicellular eukaryotes.

2. Describe the experiments in the 1950s that used carrots and frogs to demonstrate that nuclei from differentiated cells can retain their full genetic potential.



3. Explain how DNA is packaged into chromosomes.

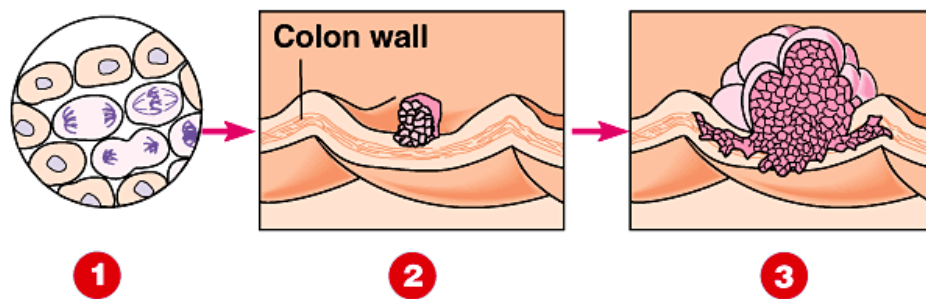
4. Explain how eukaryotic gene expression is controlled and note how it is different from gene control in prokaryotes.

5. Describe the process and significance of alternative DNA splicing.

6. Describe the roles of cell-to-cell signaling and signal-transduction pathways in development.

7. Explain how viruses, proto-oncogenes, and tumor-suppressor genes can each contribute to cancer.

8. Describe, in your own words, the main events in the development of colon cancer.



9. Describe the recent discoveries associated with the genetic basis of breast cancer.

10. Describe behaviors that can increase and decrease your risk of developing cancer.