

Cell Communication Review

Chapter 11

1. Name a couple of examples of local and long-distance signaling.
2. Identify and describe the three stages of cell signaling.
3. What determines whether a cell is a target cell for a particular signal molecule?
4. How do steroid hormones and protein hormones differ in their mechanism of action?
5. Choose one of the three types of receptors we discussed and briefly explain how it functions.
6. Describe the role of protein kinases in signal cascades.
- 7 Explain the adaptive value for signaling pathways to shut down rapidly in the absence of a signal molecule.
8. In a signal transduction pathway that involves phosphorylation, how does the cell's response get turned off?
9. How does a phosphorylation cascade allow a signal to be amplified?
10. cAMP is a common second messenger. Explain how it is formed, how it is degraded and how it serves as a messenger.
11. Explain how two different cells can respond differently to the same signal.
12. Why is signaling important for cells?