CHAPTER 5. PLASMA MEMBRANE

Reading study guide; video; quiz

Objectives:

1. Understand the principle of fluid mosaic model
2. Understand the selective permeability principle
3. Understand the difference between the passive transport mechanisms
   1. video objective: understand osmosis
4. Understand the meaning of active transport
5. Explain the difference between the various bulk transport mechanisms

Reading guide:

1. Membrane structure:
   1. sandwich vs. fluid mosaic models
   2. types of molecules present in the membrane
   3. functions of membrane molecules
2. Membrane function:
   1. separation of two compartments
   2. selective permeability definition
   3. membrane permeability principle
   4. types of membrane transport: passive vs. active
3. Passive transport:
   1. simple diffusion
   2. facilitated diffusion
   3. osmosis
4. Active transport:
   1. Definition
   2. Na/K-pump role
5. Bulk transport mechanisms:
   1. Endocytosis vs. exocytosis
   2. Phagocytosis
   3. Pinocytosis
   4. Receptor-mediated endocytosis

Video on osmosis:

1. solution: solvent versus solute

3. types of solutions: hyper- vs. hypo- vs. isotonic

4. movement of water or solvent during osmosis

5. examples

Osmosis video – Quiz

1. What is the definition of the solute:
   1. substance capable of dissolving other substance
   2. substance dissolved in a liquid
   3. the solvent of a solution
   4. the solution itself
2. Which statement is true about the example with the beaker:
   1. the solute is the pink color
   2. the solute is the purple color bubbles
   3. the solvent is the pink color bubbles
   4. the solvent is the purple color bubbles
3. A plant cell in a hypotonic solution:
   1. will lose water and burst
   2. will gain water and burst
   3. will gain water and not burst
   4. will not have any effect on water movement