

Notes Chapter 7-2 The Plasma Membrane

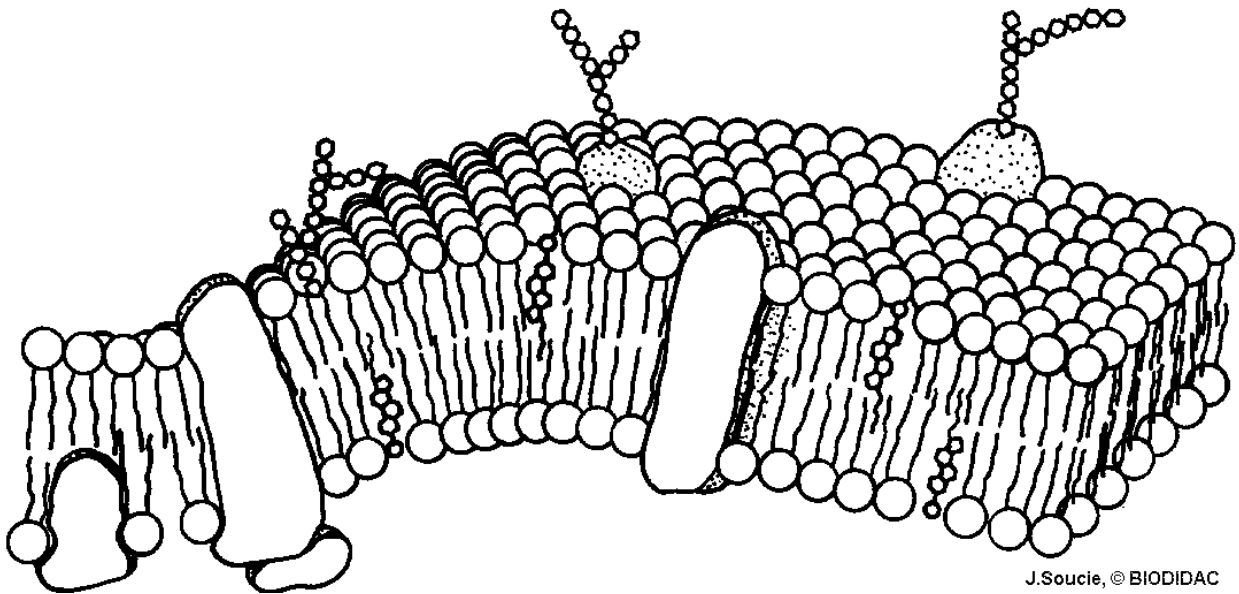
- I. All living things must maintain homeostasis
 - i. A stable set of conditions
- II. All cells are surrounded by a membrane that separates the cell from the environment and/or other cells.
 - i. Plasma Membrane, Phospholipid Bilayer
- III. The plasma membrane provides the cell with 3 key functions
 - i. Protects the cell from the environment
 - ii. Provides shape and structure
 1. Holds the cell together
 - iii. Controls what material can enter and what materials can leave the cell
 1. Selectively Permeable
- IV. The plasma membrane is a mosaic of different molecules that work together, they are constantly in motion.
 - i. Phospholipids
 1. Two parts, a head and 2-tails
 2. Heads are hydrophilic(like water) and tails are hydrophobic(Hate water)
 - ii. Transport (transfer) proteins
 1. Responsible for carrying larger molecules across the membrane
 - iii. Cholesterol
 1. Stops the tails from sticking together

iv. Carbohydrates and other Proteins

1. On the outside of the cell, helps identify the cell characteristics

v. Who gets in and who gets out?

- i. Small molecules like water, carbon dioxide, oxygen, and other polar molecules can easily pass between the phospholipid molecules and enter the cell without help.
- ii. Large molecules like sugars, proteins, large waste products, etc have to use transport proteins to get in/out of the cell



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