

Chapter 5

Cell Membrane Structure and Function



5.1 How Is the Structure of a Membrane Related to Its Function?

- Functions of the plasma membrane:
 1. Isolates cell contents from external environment
 2. Regulates the exchange of essential substances
 3. Allows communication within and between cells
 4. Creates attachments within and between cells
 5. Regulates biochemical reactions

- Membranes are “fluid mosaics” in which proteins move within layers of lipids
 - The “**fluid mosaic**” model of a membrane was proposed in 1972 by Singer & Nicolson
 - “mosaics” or “a patchwork” of different proteins
 - Selectively permeable
 - Allows materials to move in/out of cell