

# 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 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 and Nicolson
    - “mosaics” or “a patchwork” of different proteins
    - Selectively permeable
    - Allows materials to move in/out of cell