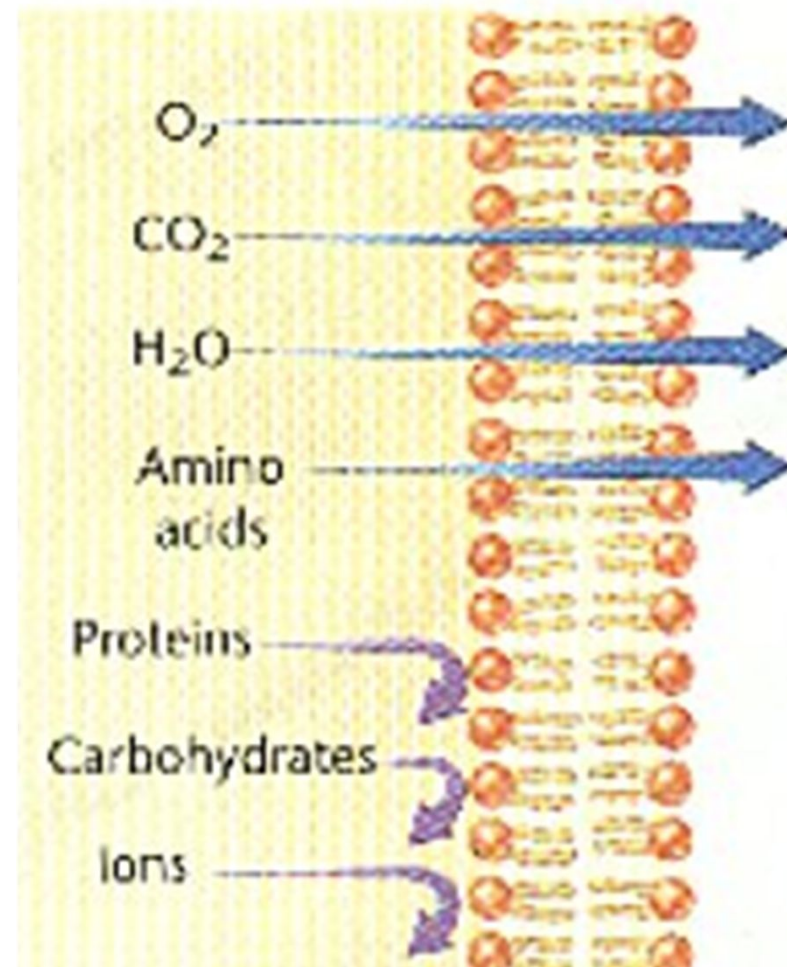


HOMEOSTASIS AND CELL TRANSPORT

Section 7.4

FUNCTION OF PLASMA MEMBRANE

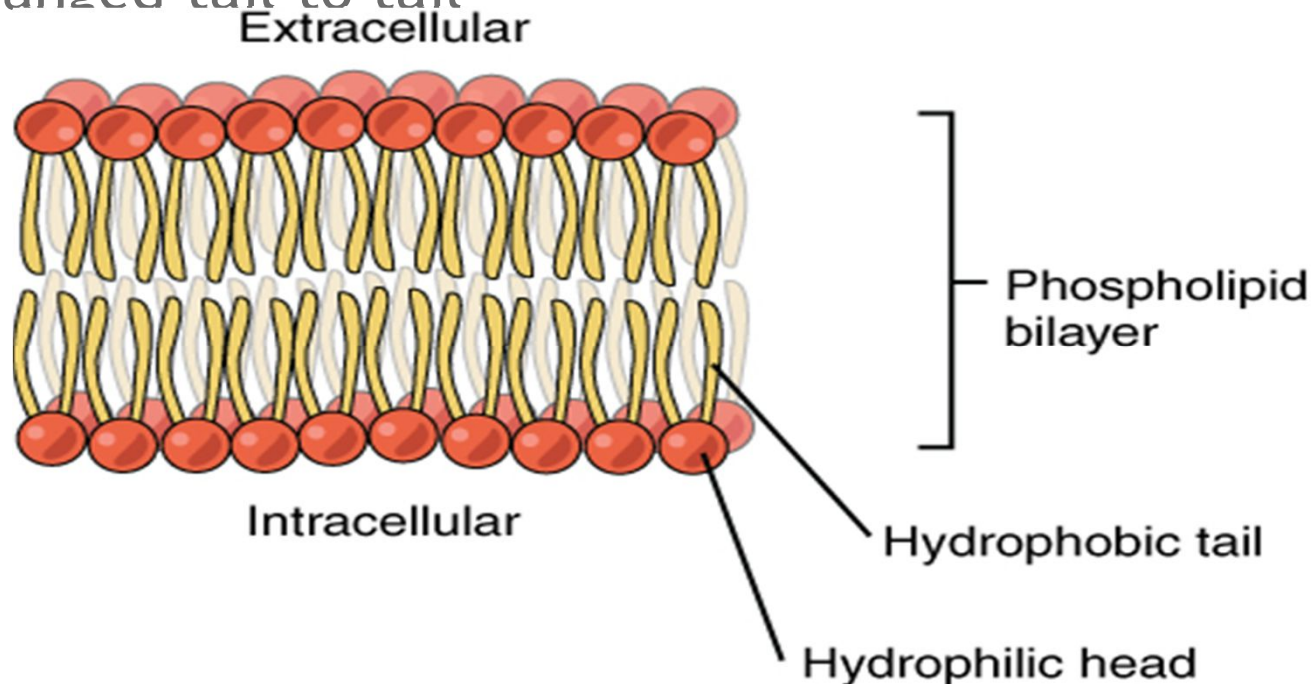
- Responsible for maintaining homeostasis
- Allows nutrients in and out of the cell
- **ALL CELLS HAVE A PLASMA MEMBRANE!**
- Its is selectively permeable
 - Allows some things through but not everything



STRUCTURE OF PLASMA MEMBRANE

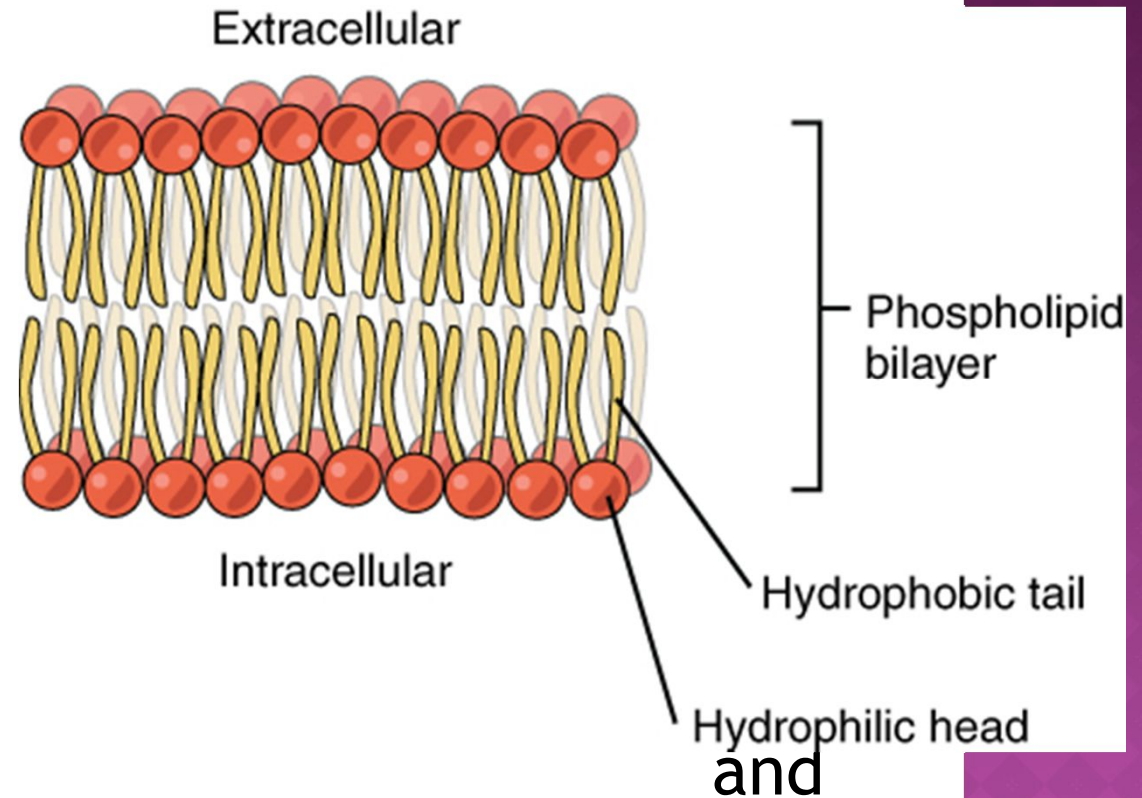
◉ Most of the molecules in the membrane are **LIPIDS**

- Phospholipid bilayer
- Glycerol, fatty acid and phosphate group
- Arranged tail to tail



THE PHOSPHOLIPID BILAYER

- **Hydrophobic**
 - Nonpolar
 - Dislikes water
- **Hydrophilic**
 - Polar
 - Attracted to water
 - “like attracts like”
- Arranged so that the tail is inside and head is outside near water



THE PHOSPHOLIPID BILAYER

- The bilayer lets non-water soluble things through easily because of the structure
- Contains cholesterol, proteins and carbohydrates
 - Proteins - transmit signals into the cell, anchor the shape
 - Create channels for particles to enter and exit
- **Fluid mosaic model**
 - The bilayer is a “sea” for other molecules