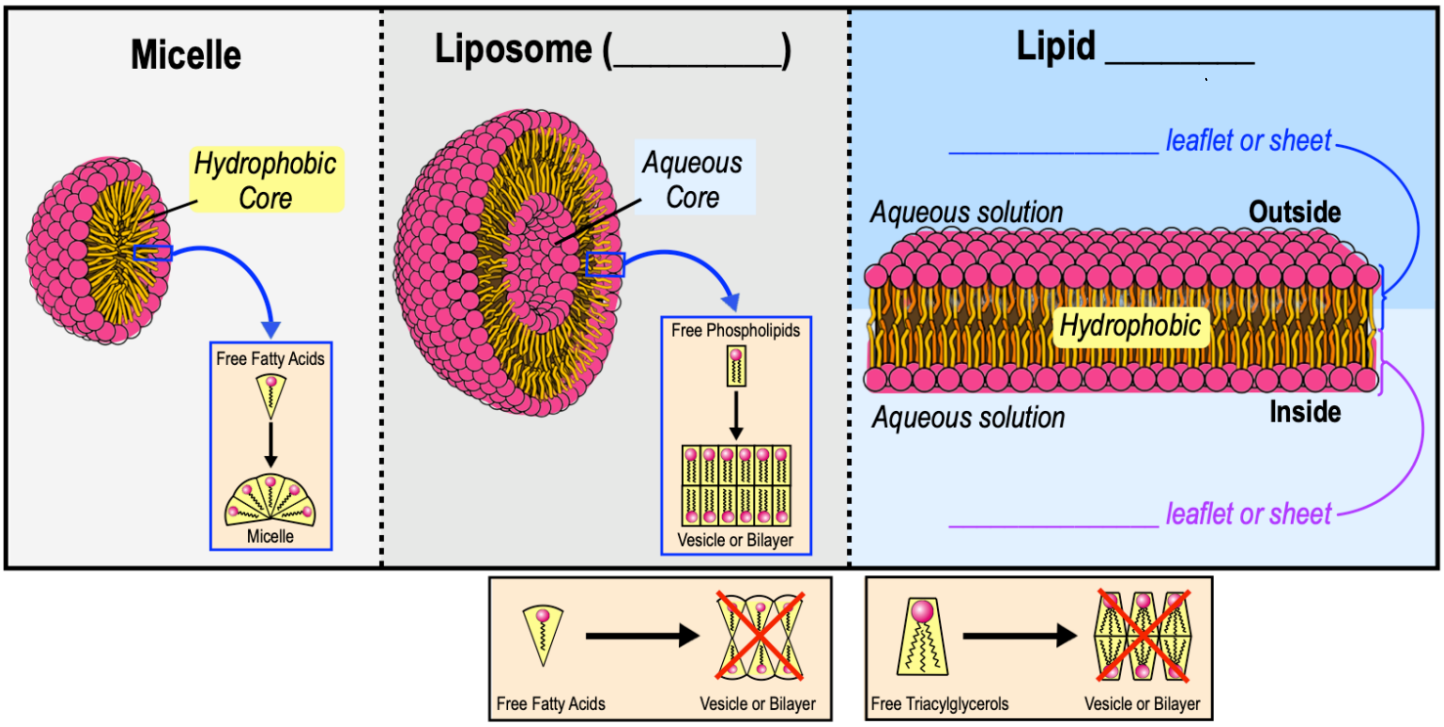
CONCEPT: BIOLOGICAL MEMBRANES

●Recall: In aqueous solution, amphipathic lipids *spontaneously* aggregate via the _____ *effect*.

□ Leads to formation of *micelles*, *liposomes* (or *vesicles*), & *lipid bilayers*.

□ _____- & _____- *phospholipids* have optimal *shapes/geometry* to form *lipid bilayers*.



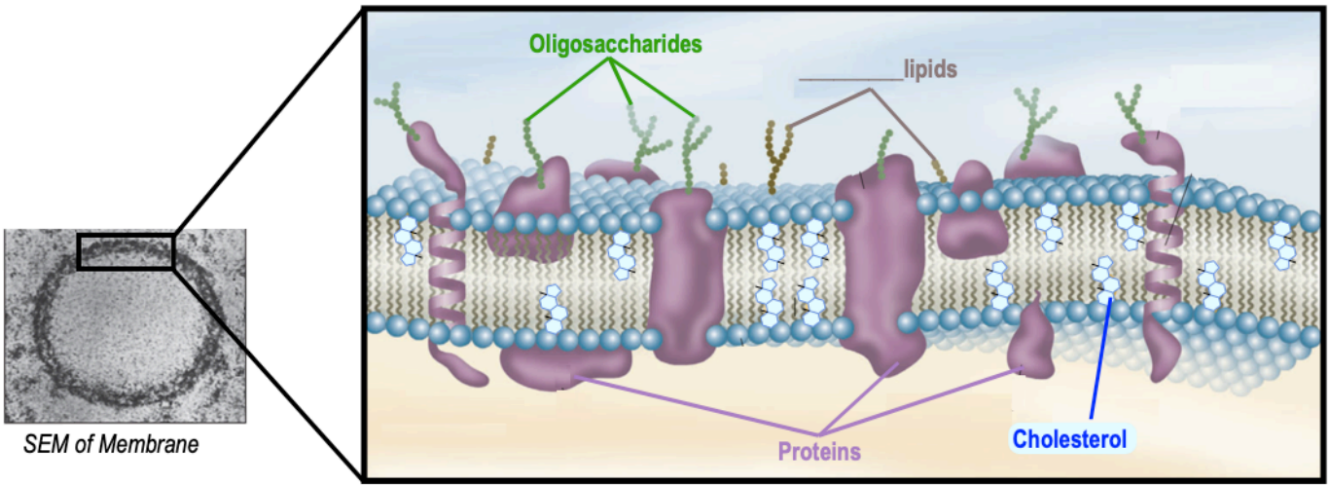
Biological Membranes

●*Biological membranes*: lipid bilayers with other membrane-*embedded* molecules (ex. _____).

□ *Fluid Mosaic Model*: biological membranes are _____ & a _____ membrane-embedded *proteins*.

□ Comprised of 20-80% _____ by mass.

□ Membrane lipid composition _____ from cell-to-cell, from sheet-to-sheet, & between different organelles.



CONCEPT: BIOLOGICAL MEMBRANES

PRACTICE: Membranes are a fluid mosaic of what components?

a) Proteins, cholesterol, and triacyglycerols.
b) Phospholipids, proteins, and cholesterol.
c) Phospholipids, nucleic acids, and cholesterol.
d) Eicosanoids, proteins, and phospholipids.

PRACTICE: Which of the following lipids would likely not be involved in a lipid bilayer structure?

a) Phospholipid.
b) Cholesterol.
c) Glycolipid.
d) Sphingolipid.
e) Triacylglyceride.
f) Glycerophospholipid.

PRACTICE: Membrane components within a lipid bilayer are held together primarily by:

a) Hydrogen bonds.
b) Covalent bonds.
c) Disulfide bonds.
d) Hydrophobic interactions.
e) Electrostatic interactions.
f) All of the above.