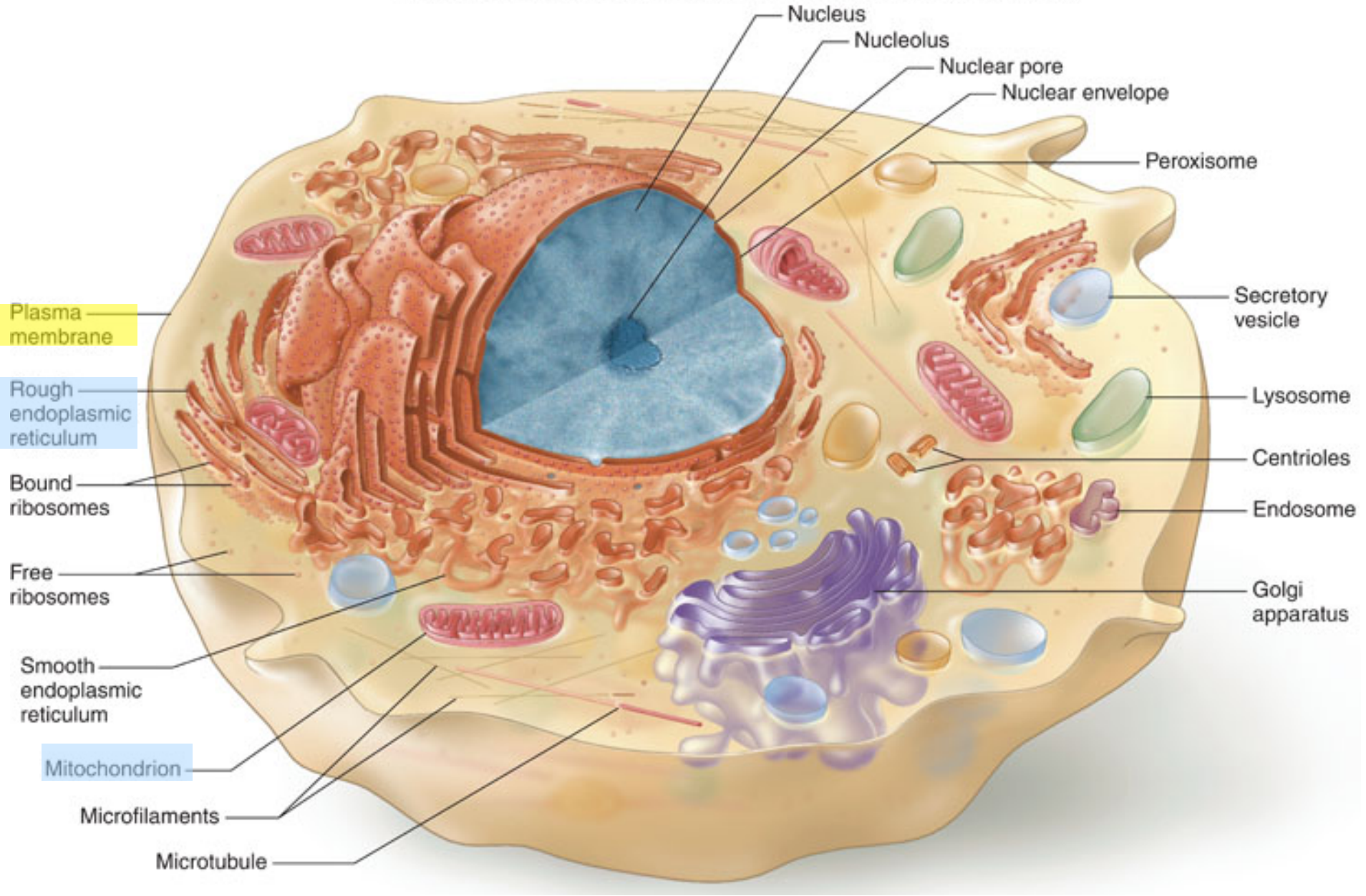


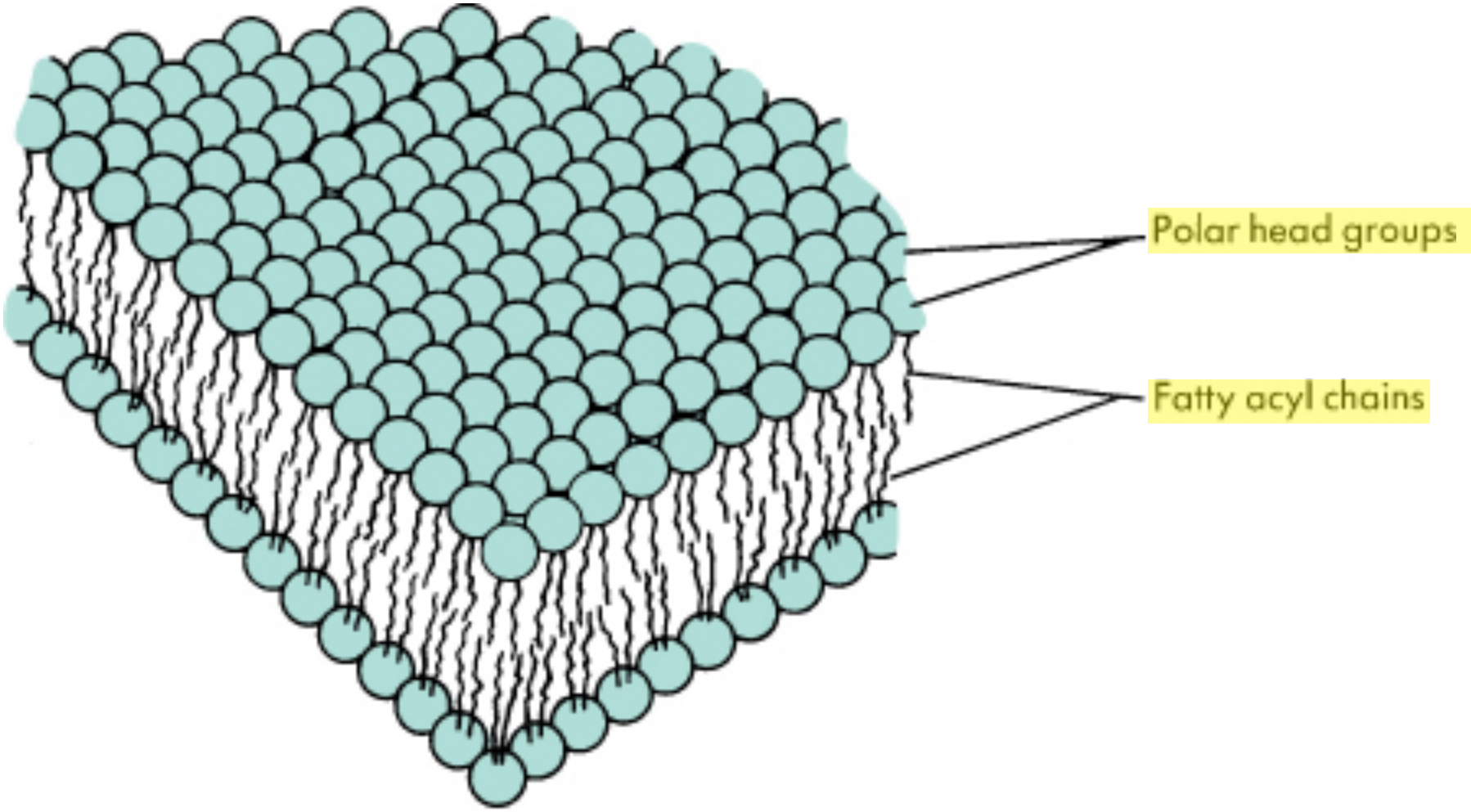


Figure 1-1 B, Structure of a phospholipid bilayer. The circles represent the polar head groups of the phospholipid molecules. The wavy lines represent the fatty acyl chains of the phospholipids.

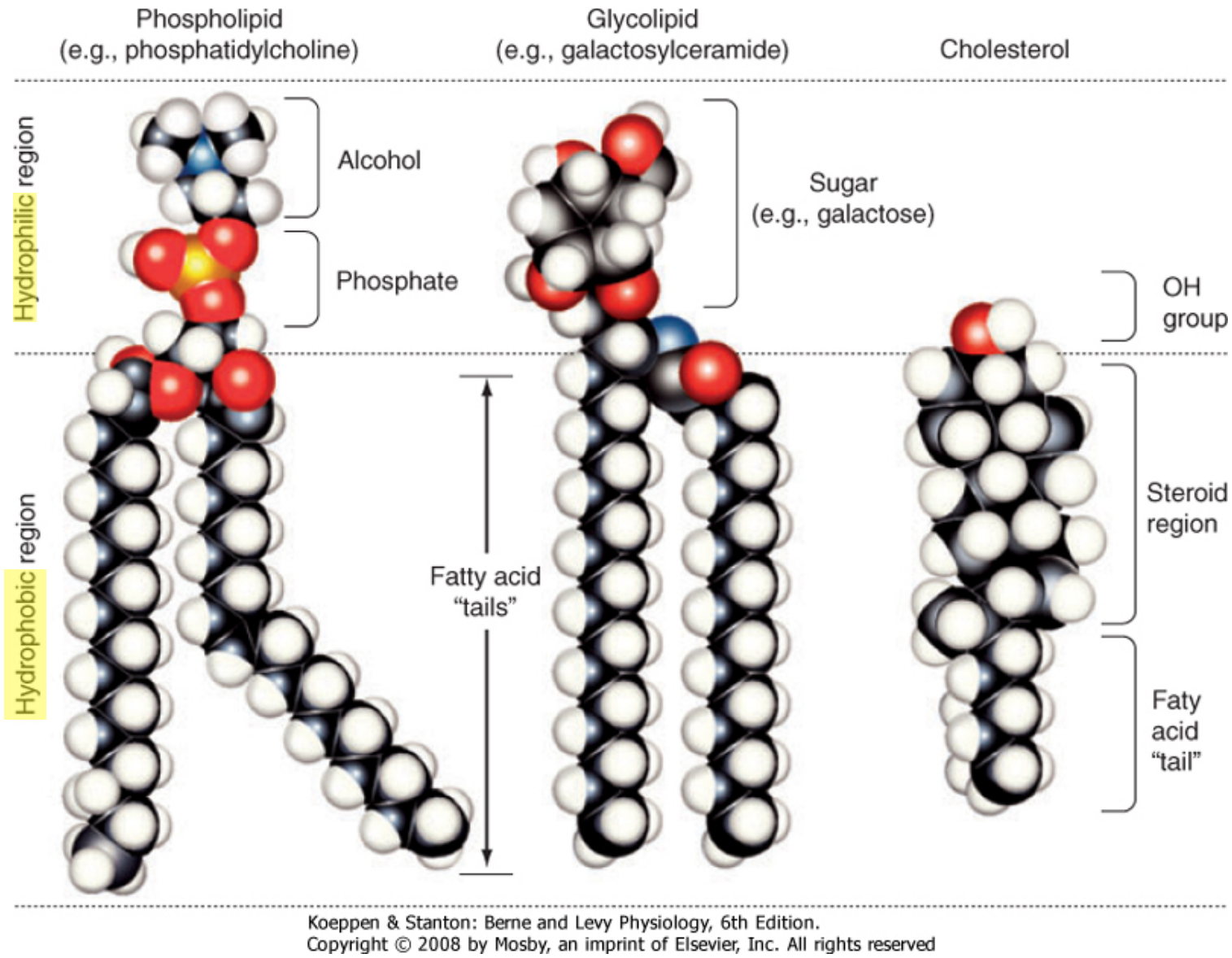


Figure 1-3 Models of the major classes of plasma membrane lipids depicting the hydrophilic and hydrophobic regions of the molecules. The molecules are arranged as they exist in one leaflet of the bilayer. The opposing leaflet is not shown. One of the fatty acyl chains in the phospholipid molecule is unsaturated. The presence of this double bond produces a "kink" in the fatty acyl chain that prevents tight packing of membrane lipids and increases membrane fluidity. (Modified from Hansen JT, Koeppen BM: Netter's Atlas of Human Physiology. Teterboro, NJ, Icon Learning Systems, 2002.)

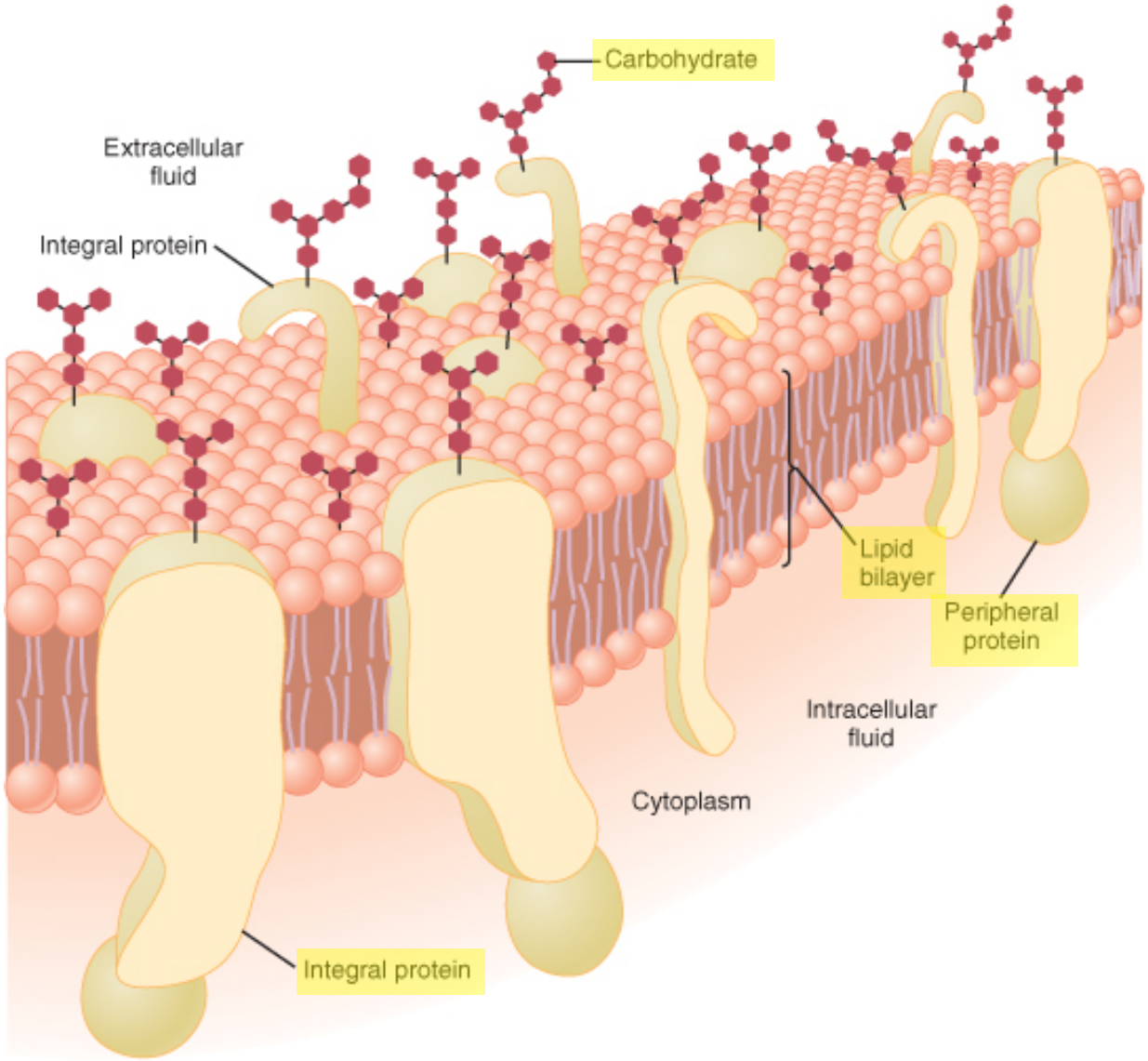


Figure 2-3 Structure of the cell membrane, showing that it is composed mainly of a lipid bilayer of phospholipid molecules, but with large numbers of protein molecules protruding through the layer. Also, carbohydrate moieties are attached to the protein molecules on the outside of the membrane and to additional protein molecules on the inside. (Redrawn from Lodish HF, Rothman JE: The assembly of cell membranes. Sci Am 240:48, 1979. Copyright George V. Kevin.)

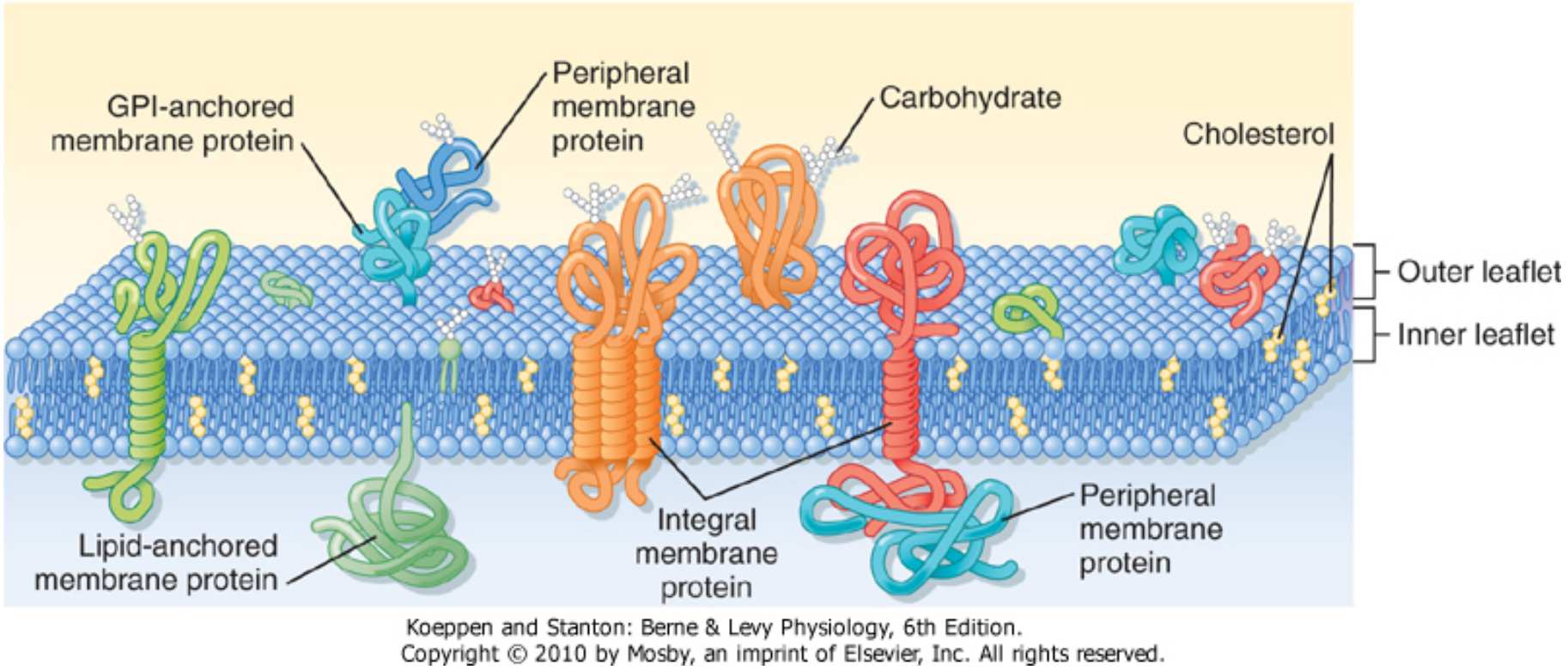
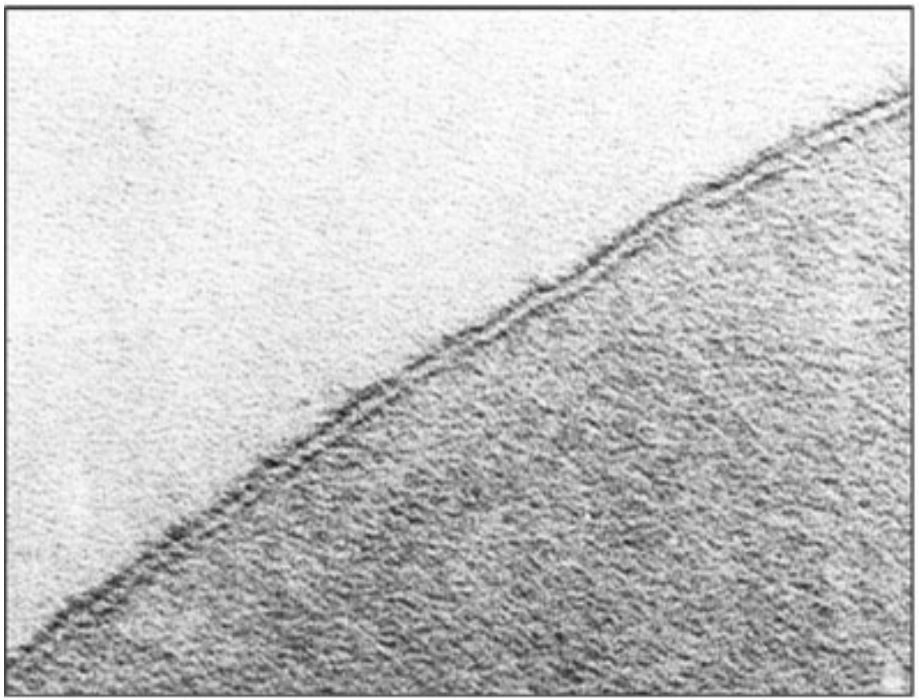
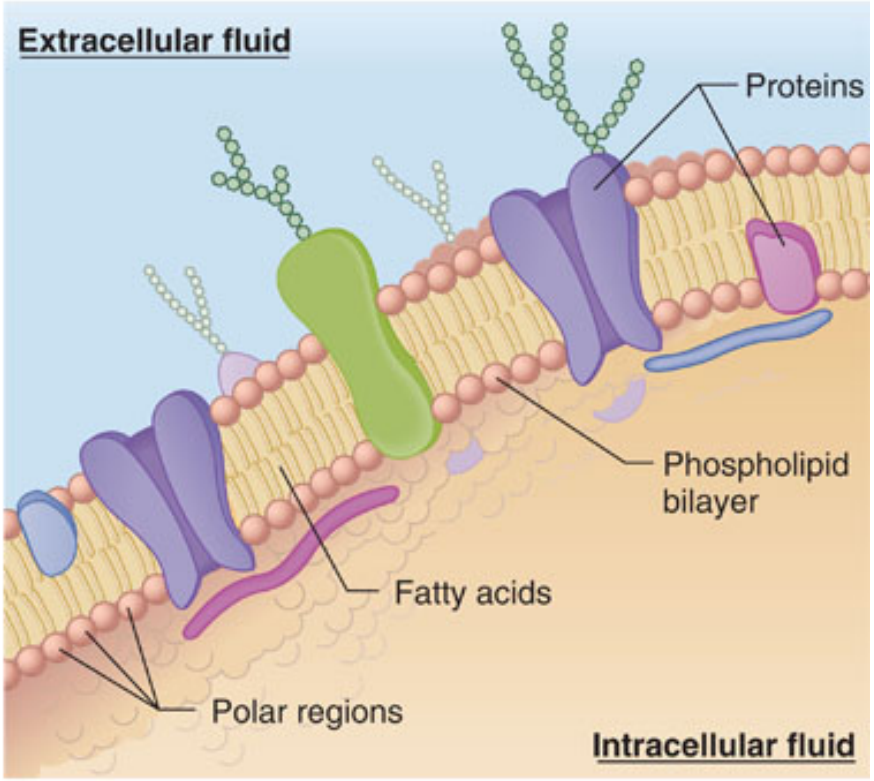


Figure 1-2 Schematic diagram of the cell plasma membrane. Not shown are lipid rafts. See text for details. (Modified from Figure 12-3 in Cooper GM: The Cell-A Molecular Approach, 2nd ed. Washington DC, Sinauer, 2000.)



(a)



(b)

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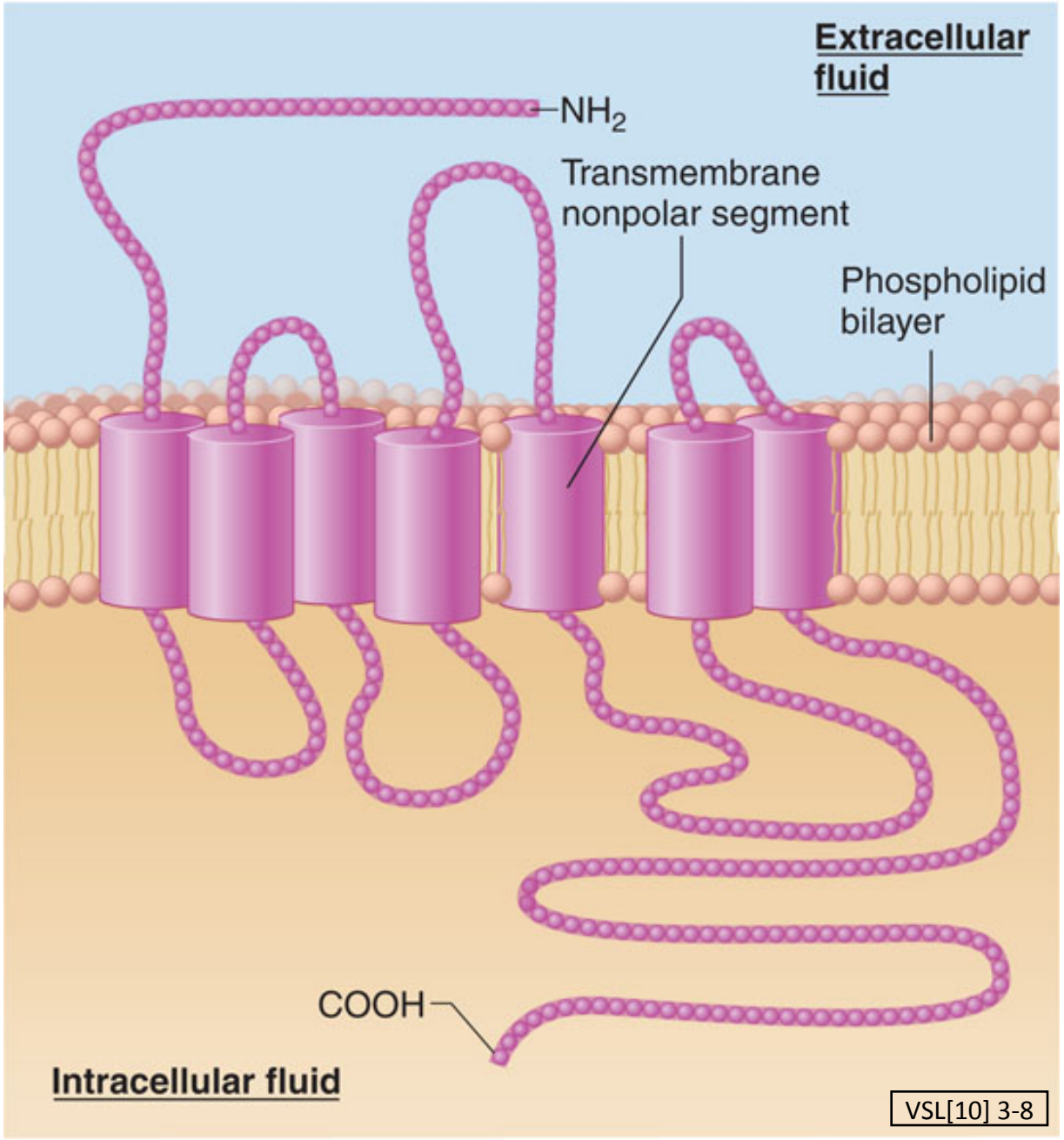

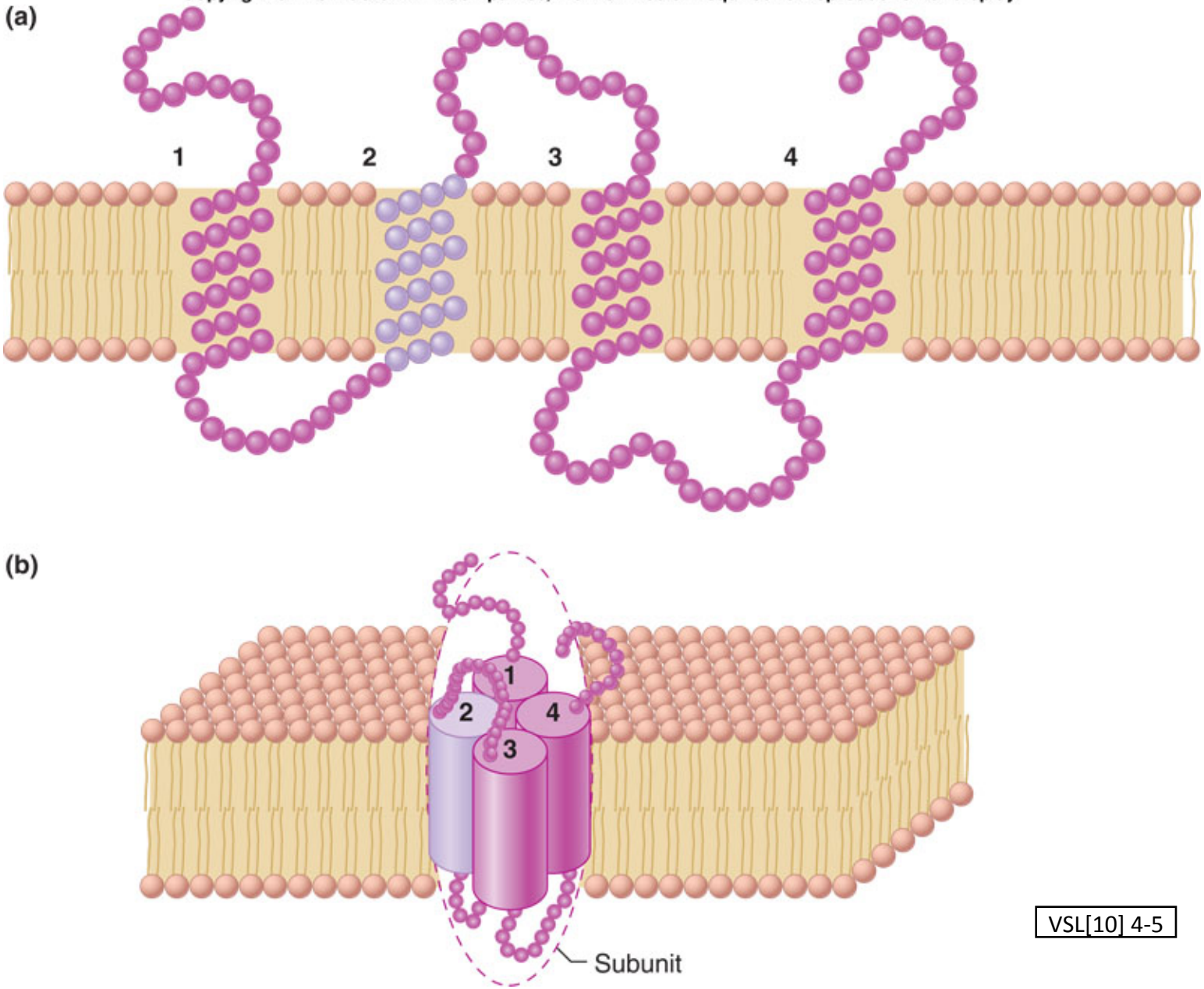

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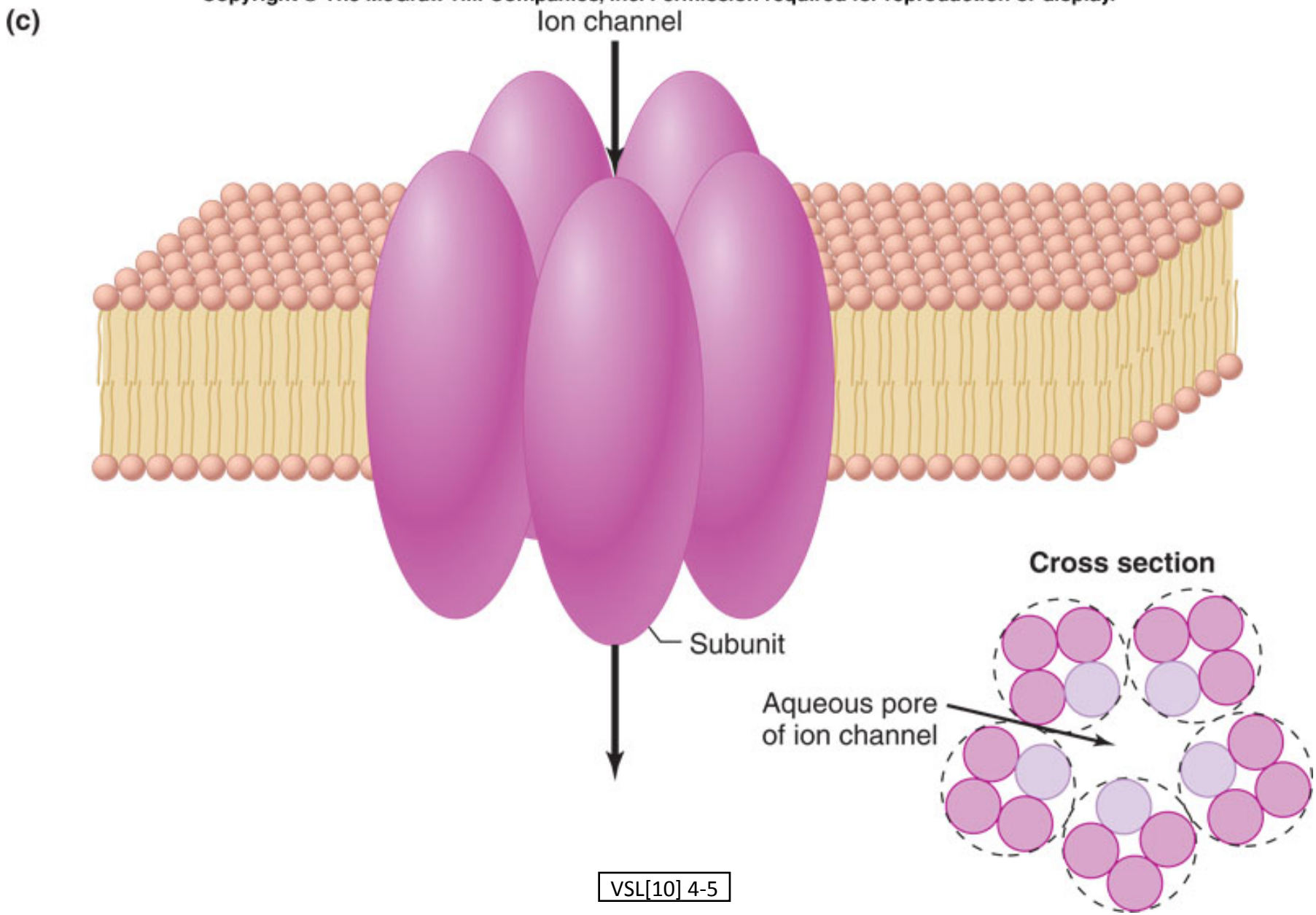

VSL[10] 4-5

END

Video 2, Module 1