

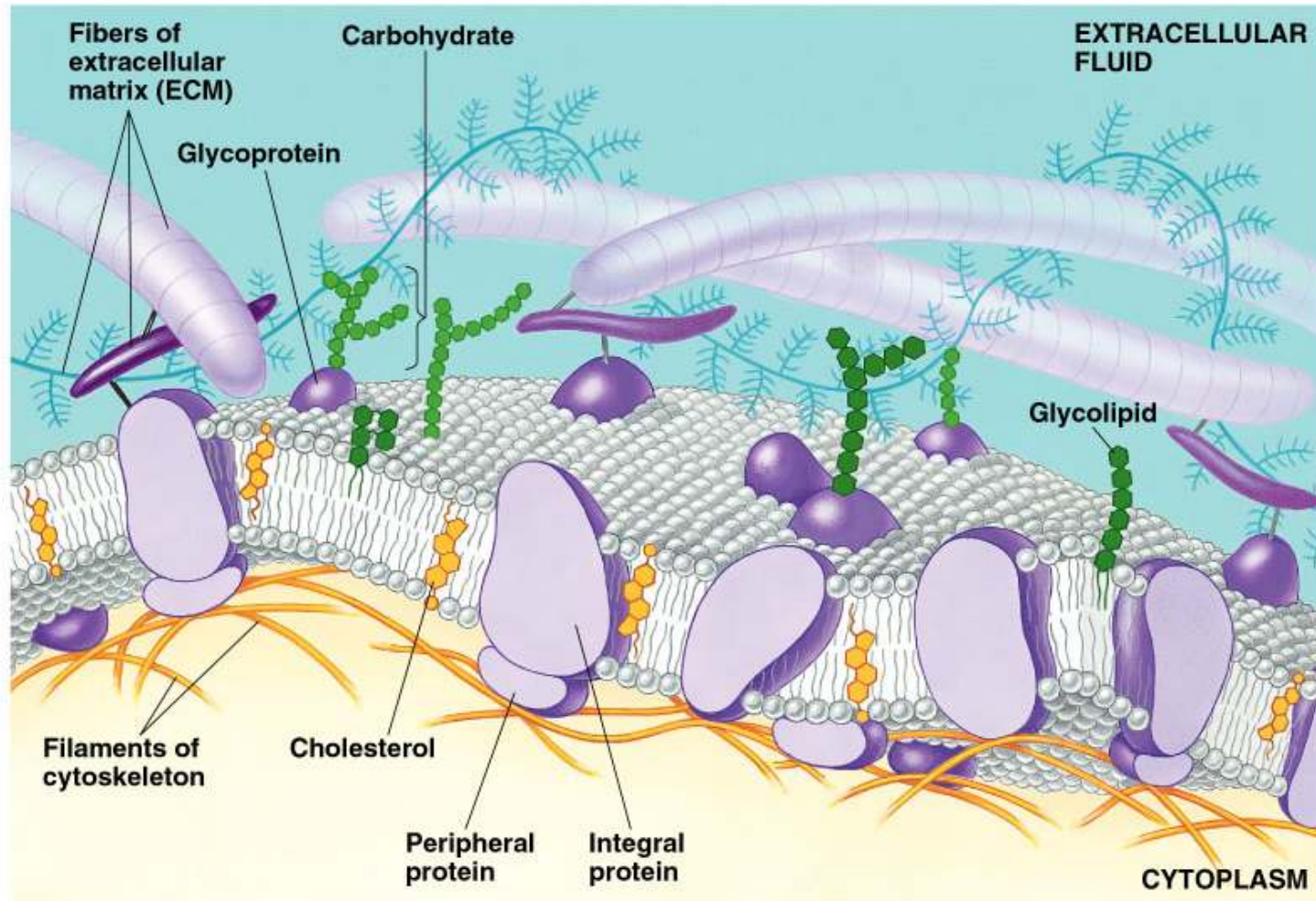
Pre – AP Biology

Movement Across Membranes

(1.3)

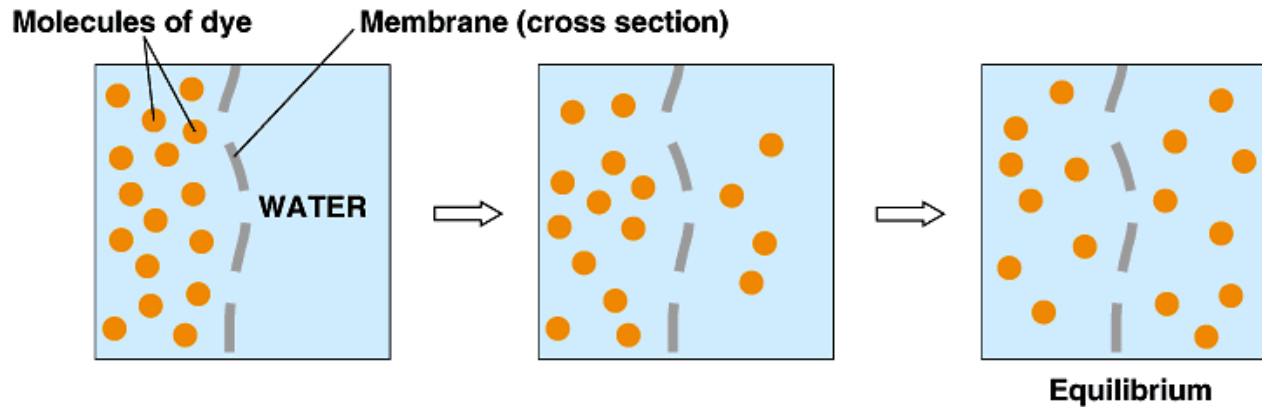
Movement across the membrane

Gases go through a wet phospholipid bi-layer. Ions & water go through proteins

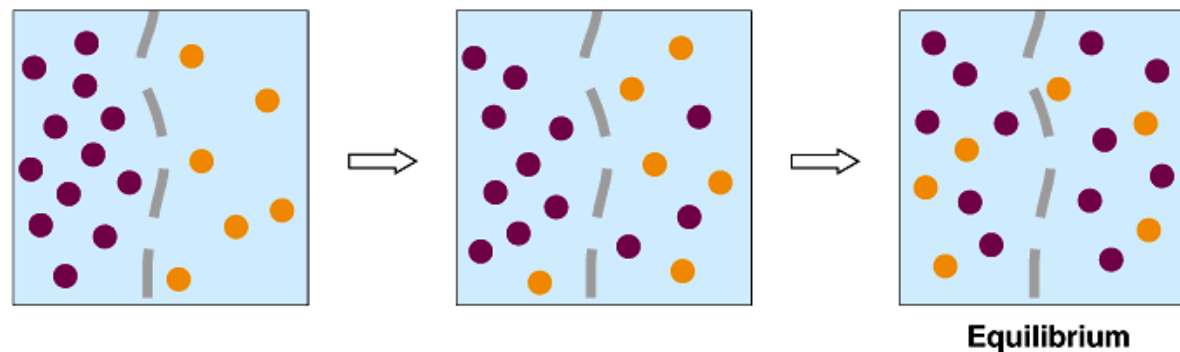


Diffusion

High concentration \rightarrow low concentration



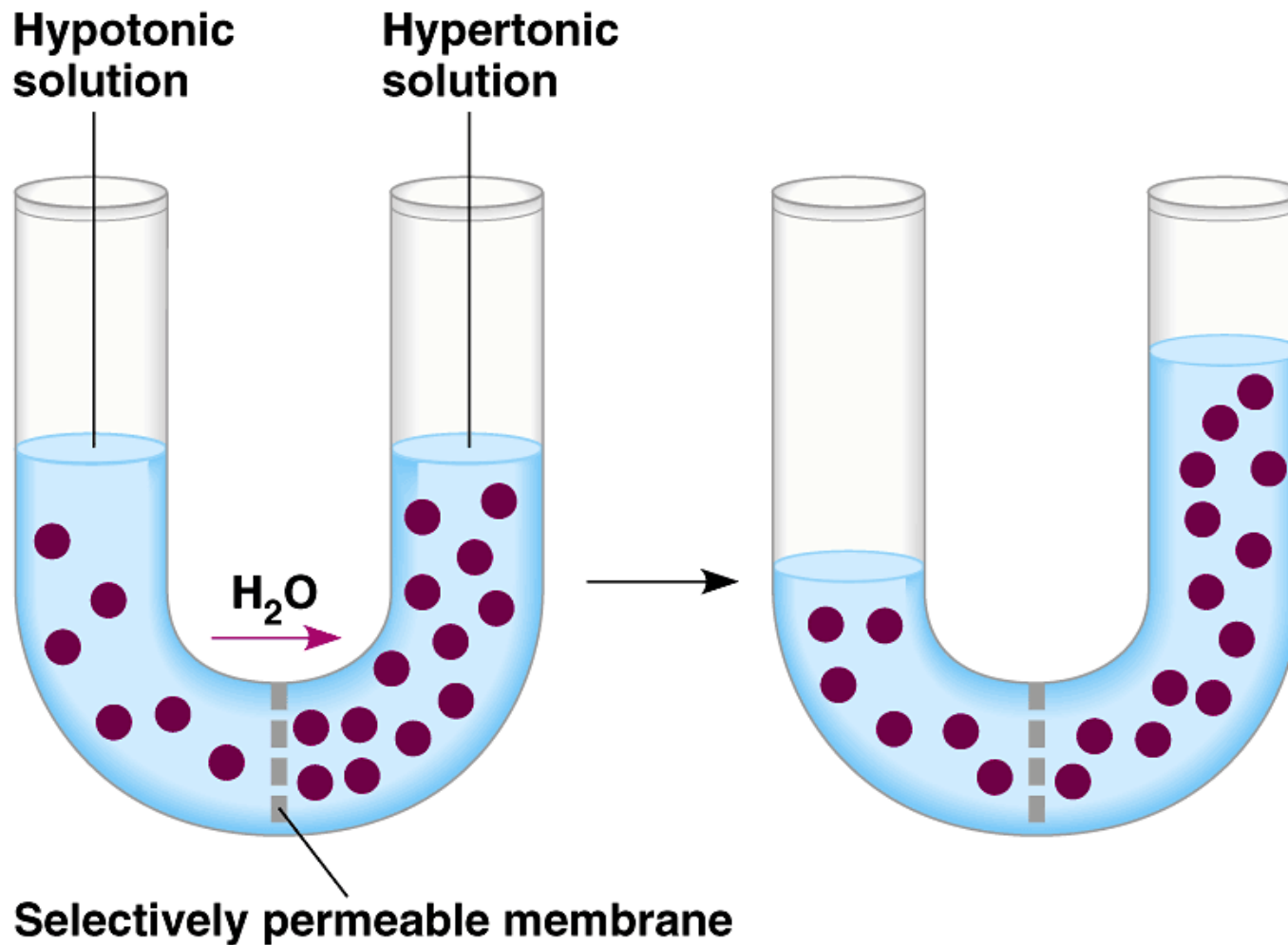
(a) Diffusion of one solute



(b) Diffusion of two solutes

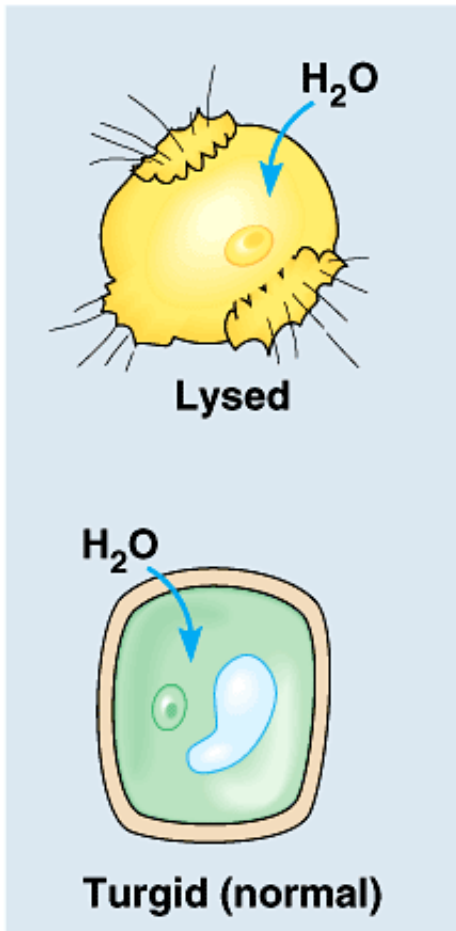
Osmosis

Water moves Hypo \square Hyper

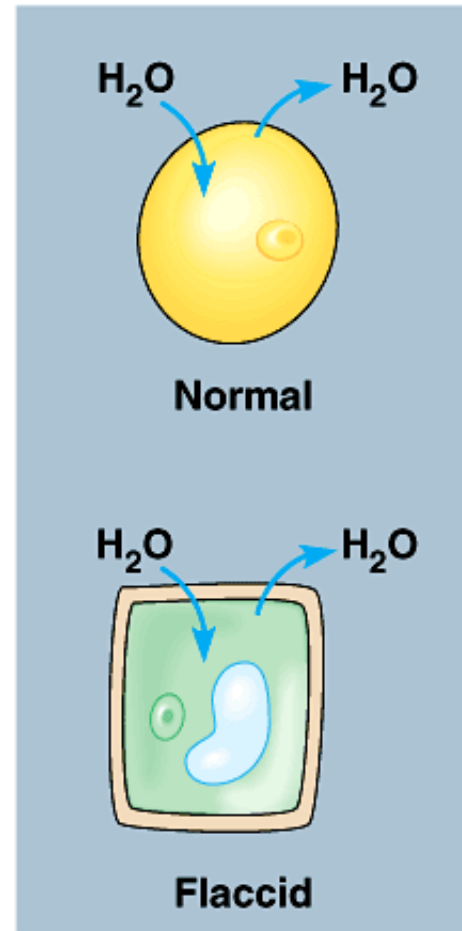


Water movement and cells

Hypotonic solution



Isotonic solution



Hypertonic solution

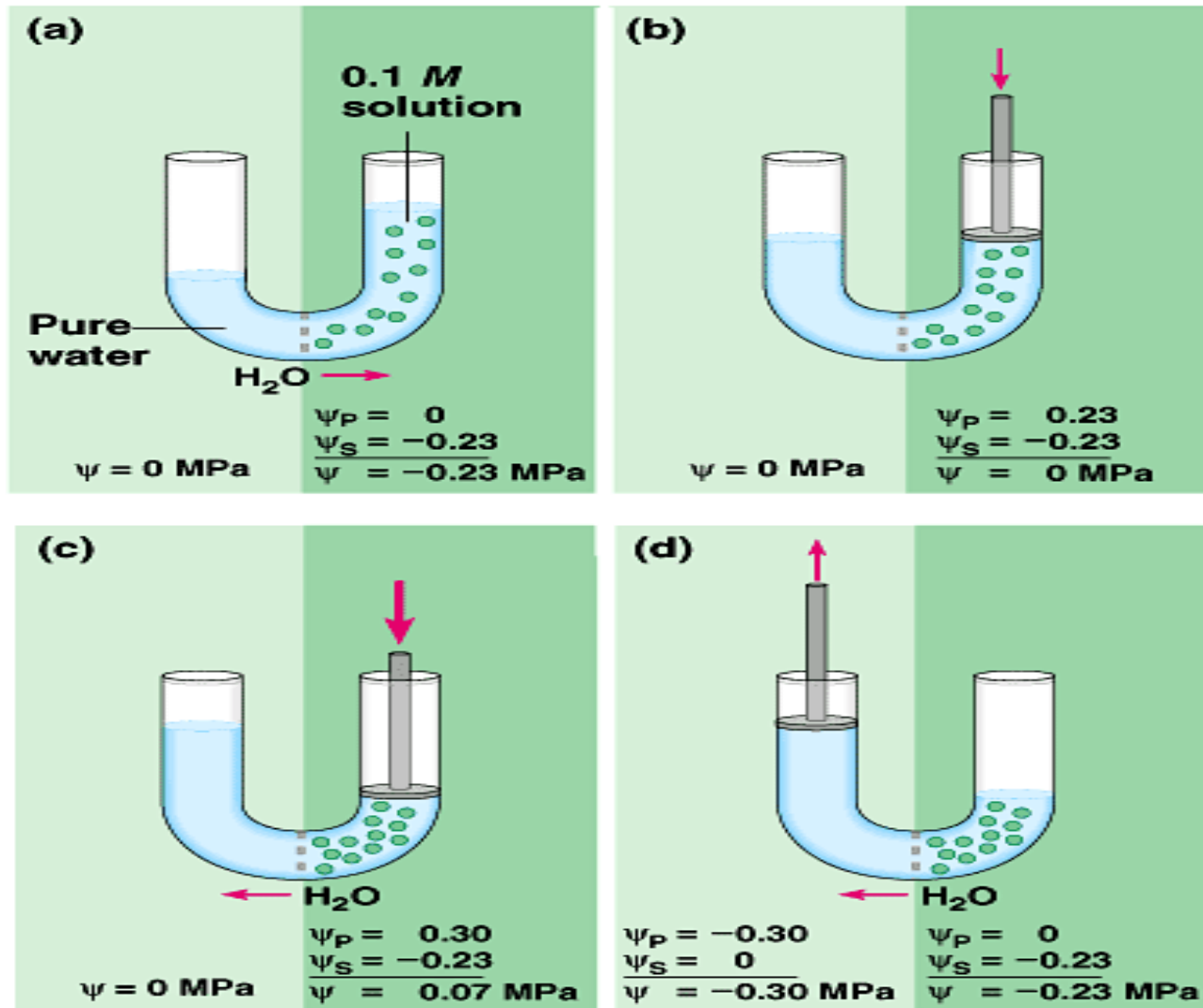


Animal cell

Plant cell

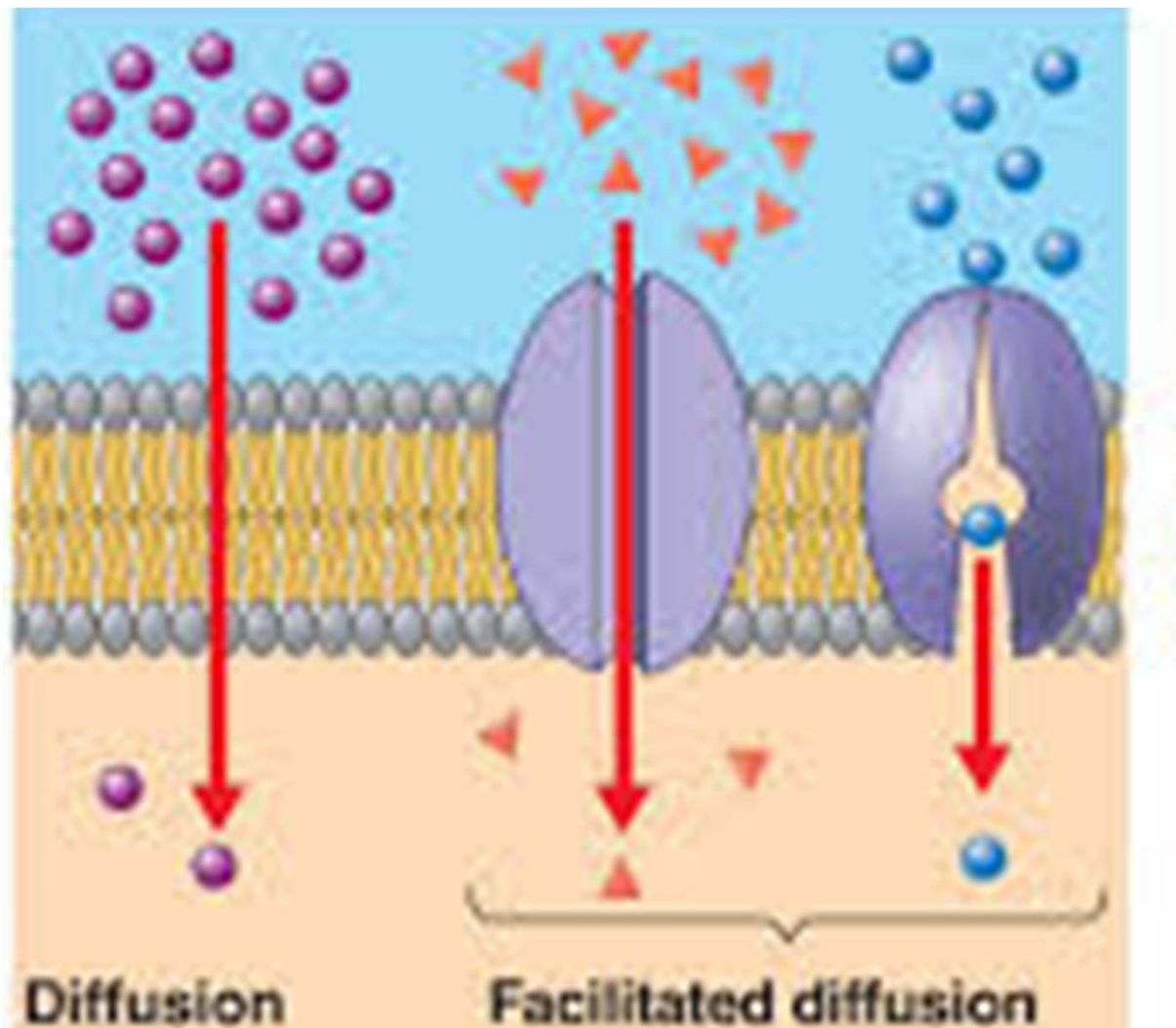
Water Potential (Ψ)

High potential \rightarrow low potential



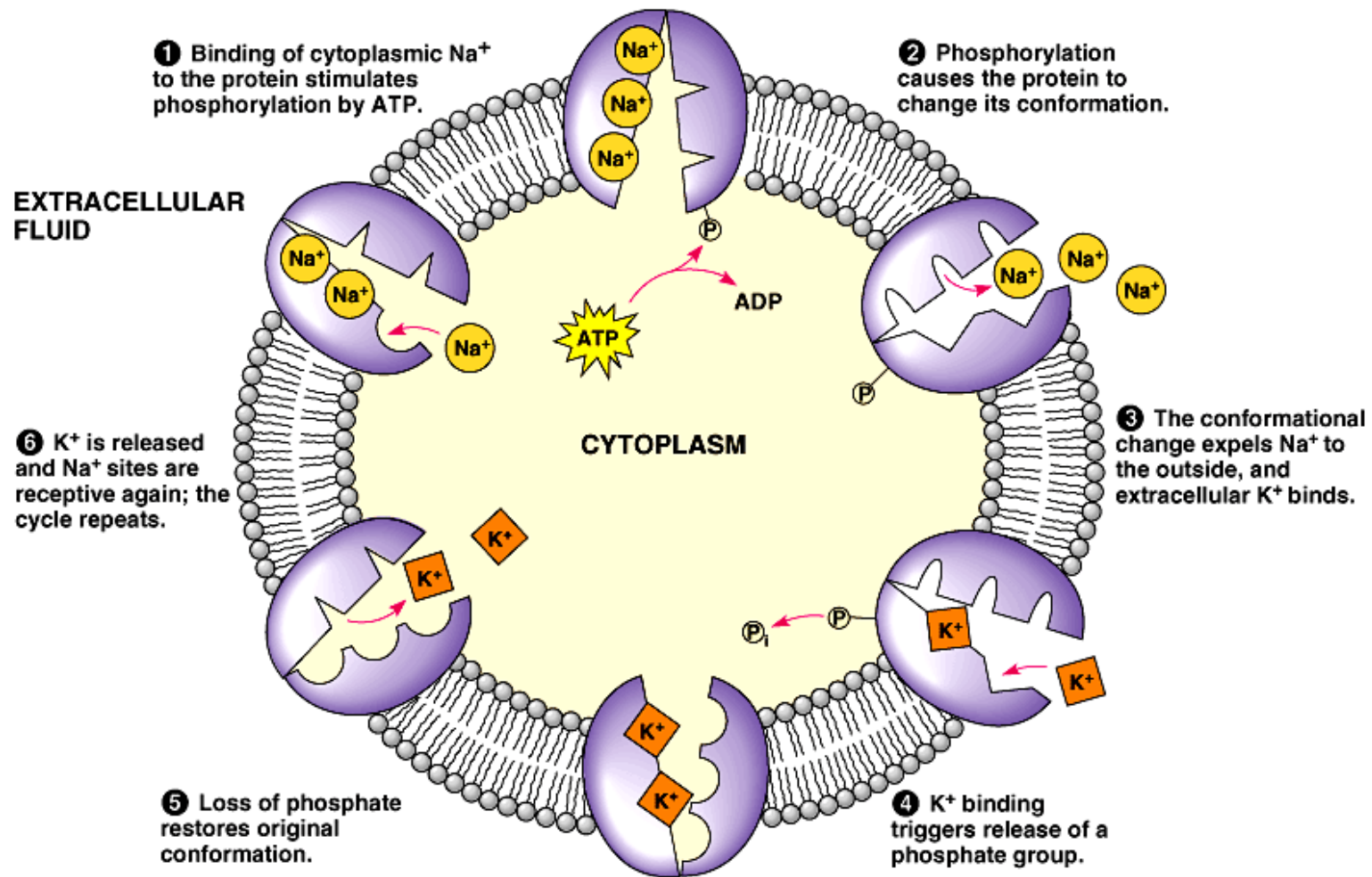
Facilitated diffusion

See the use of *protein help*?



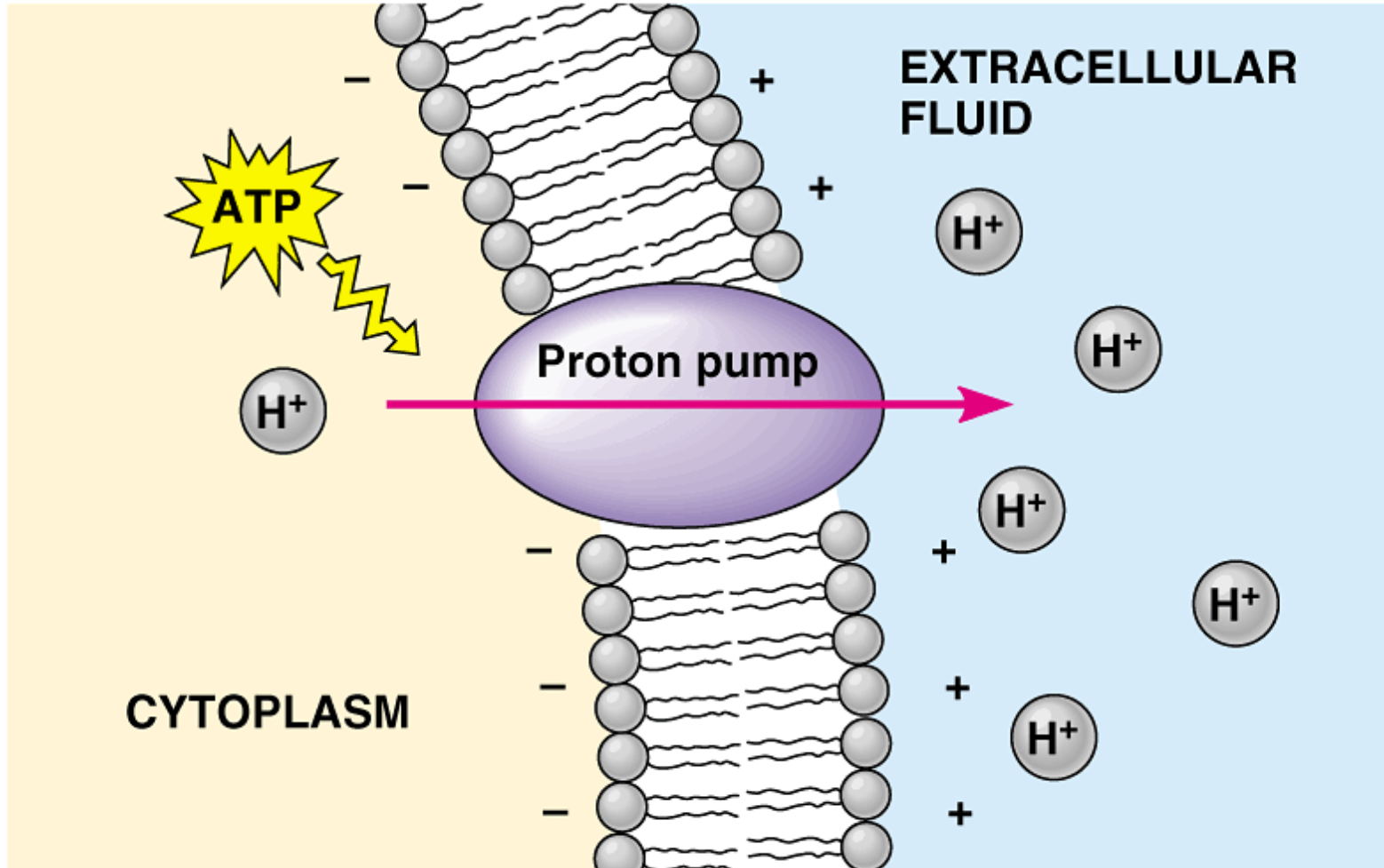
Active Transport using a Na/K pump

See the use of ATP(energy molecule)?

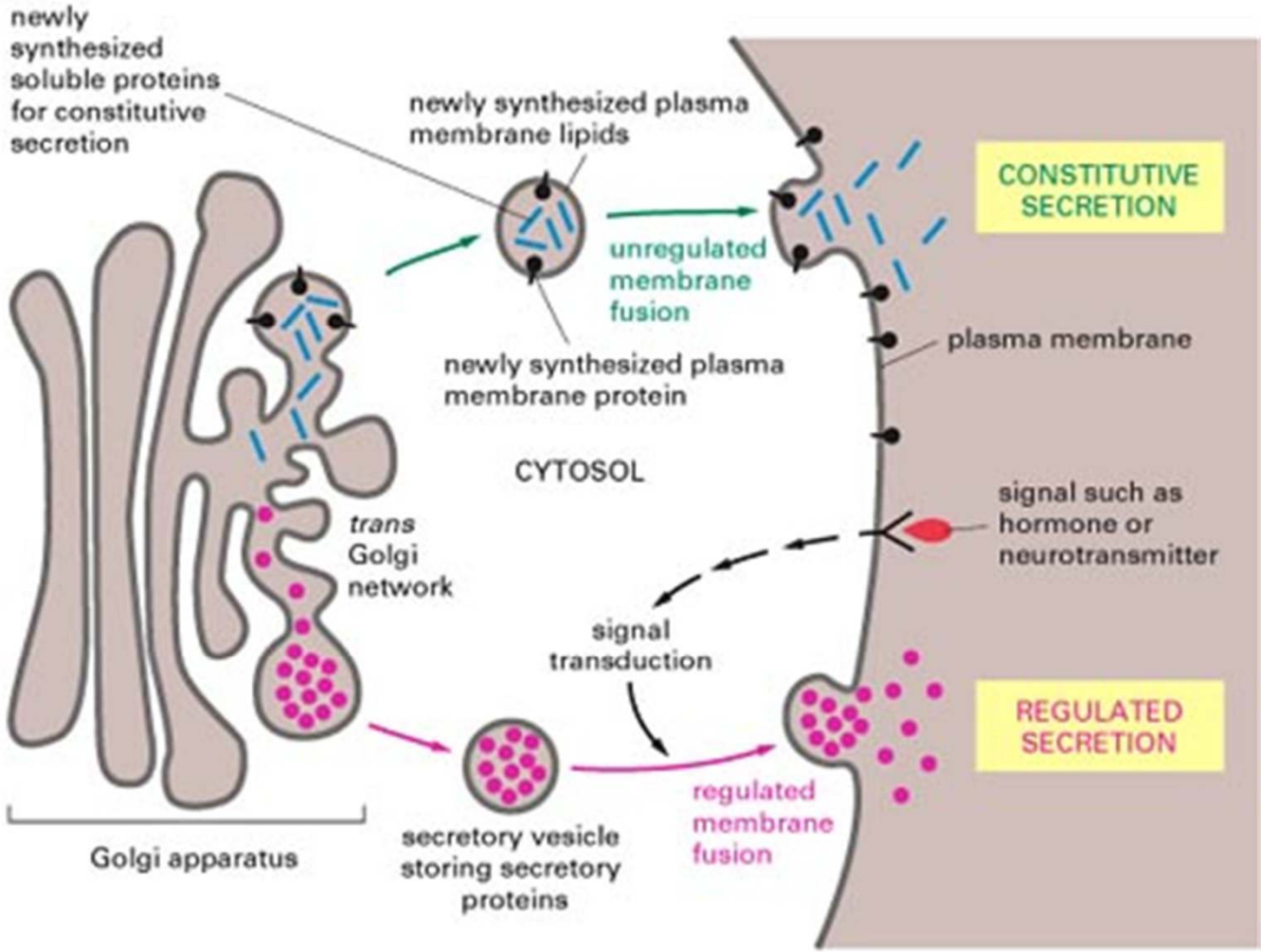


Proton pump needing ATP

low concentration \rightarrow high concentration

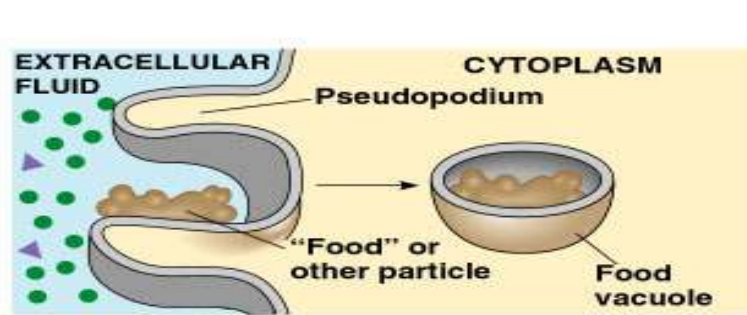


Exocytosis

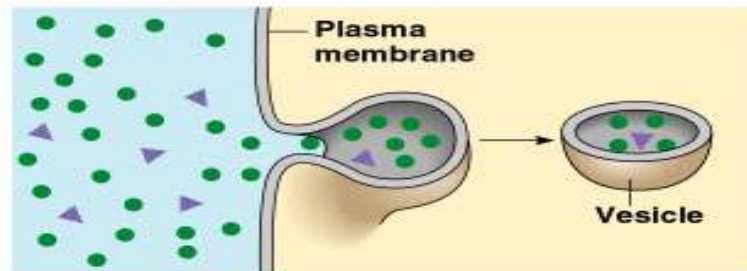
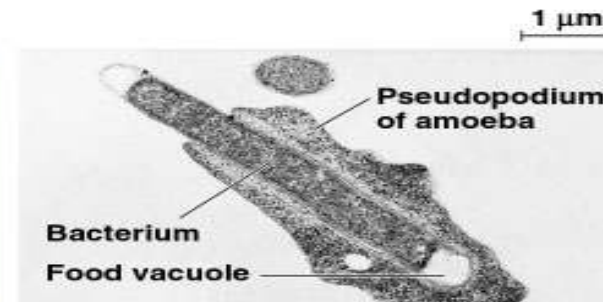


Endocytosis

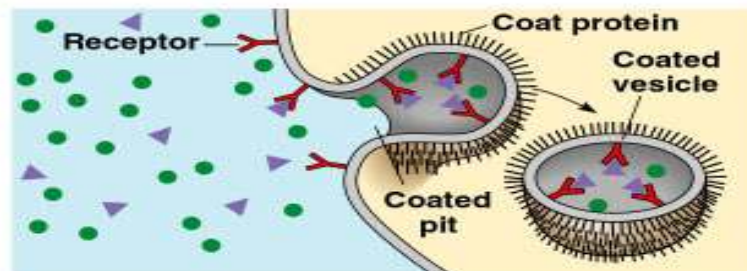
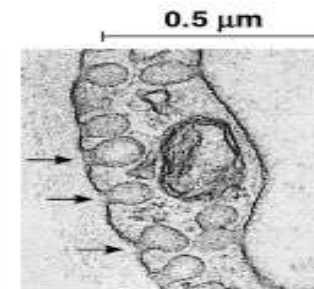
Phagocytosis & Pinocytosis



(a) Phagocytosis



(b) Pinocytosis



(c) Receptor-mediated endocytosis

