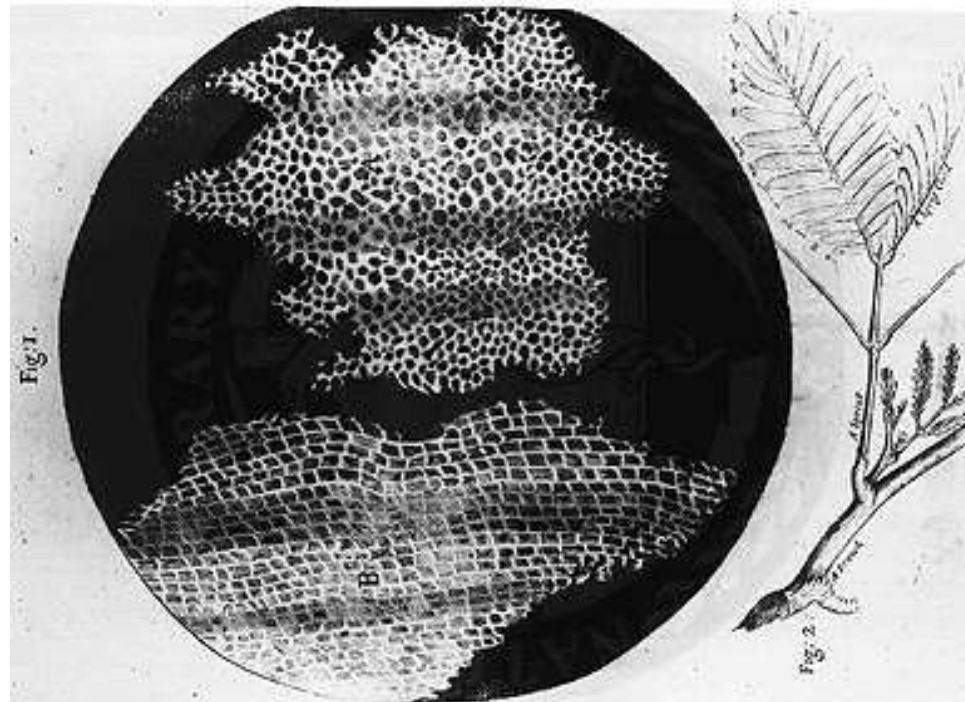


LA CÉLULA

**Presentación organizada por
José Antonio Pascual Trillo**

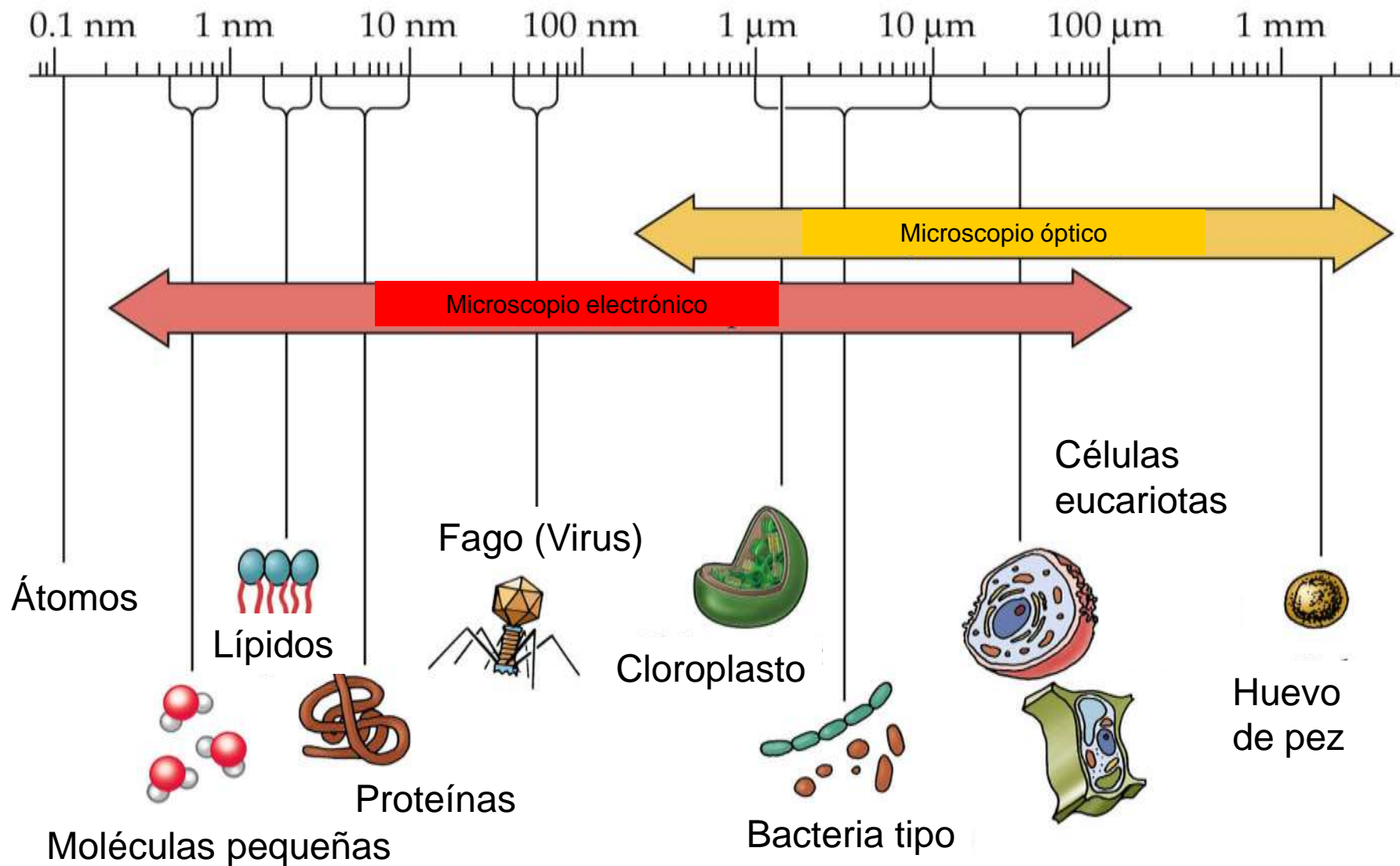
La célula

1667



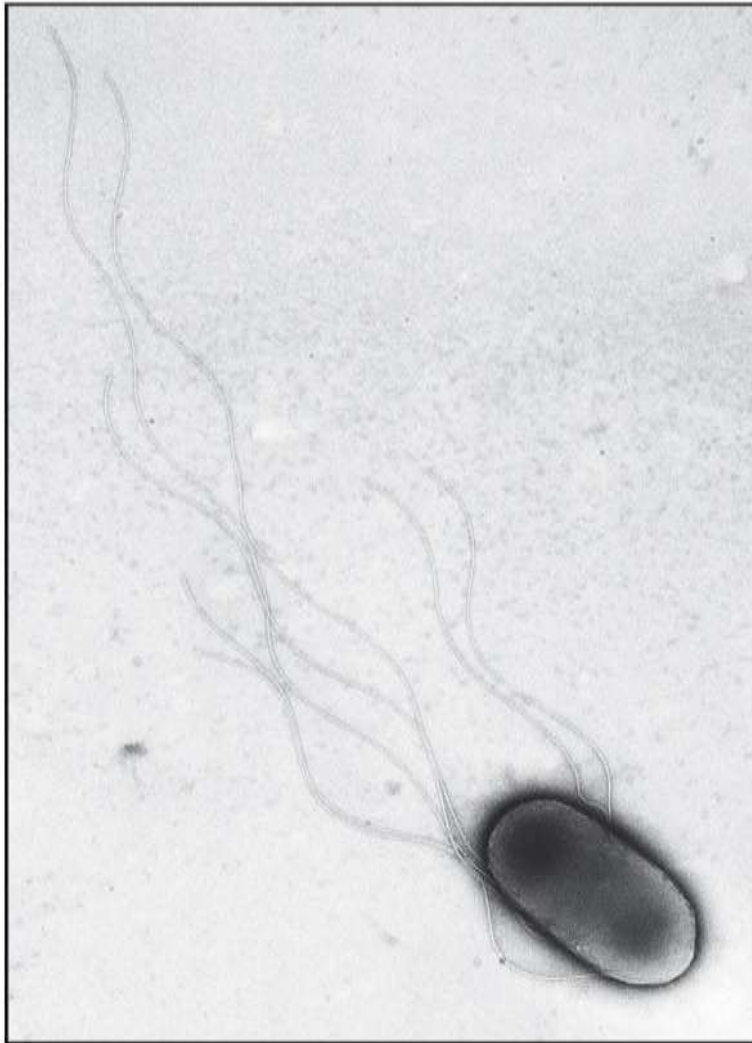
Hooke

Dibujo de pieza de corcho con “celdas” (células) al microscopio



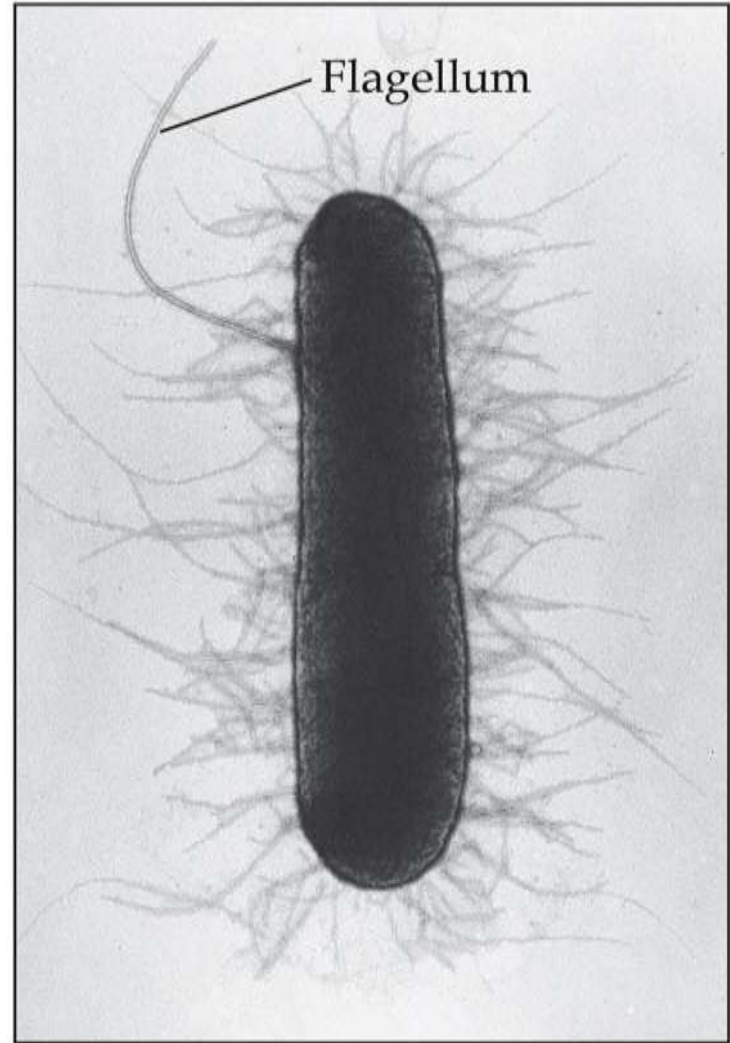
Dimensiones y relación con las técnicas de microscopía

(a)



500 nm

(b)

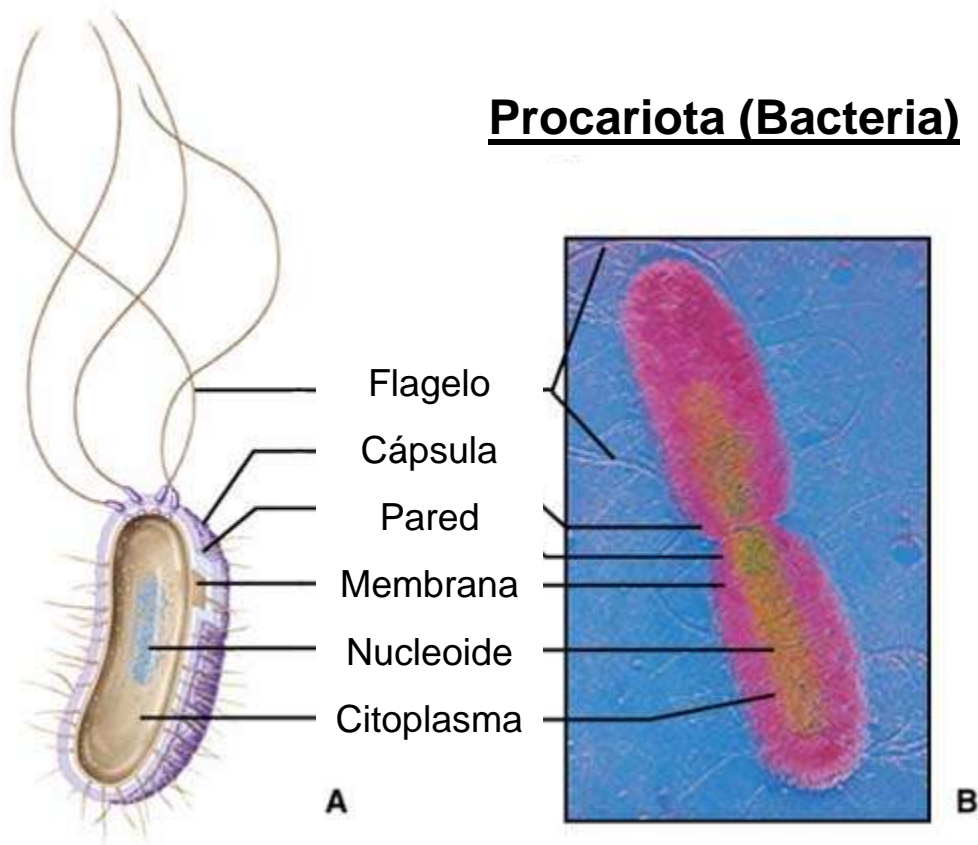


Flagellum

100 nm

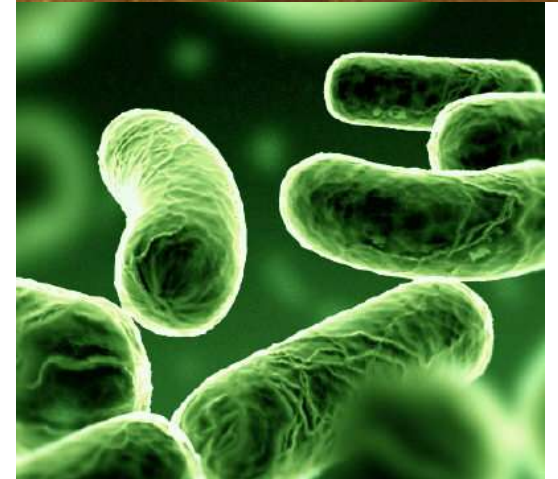
PROCARIOTAS

Procariota (Bacteria)





Tipos de bacterias (formas)

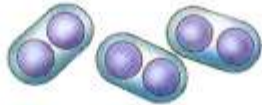


cocos



esporos bacterianos

diplococos



bacteria flagelada



estreptococos

estafilococos



Vibrios

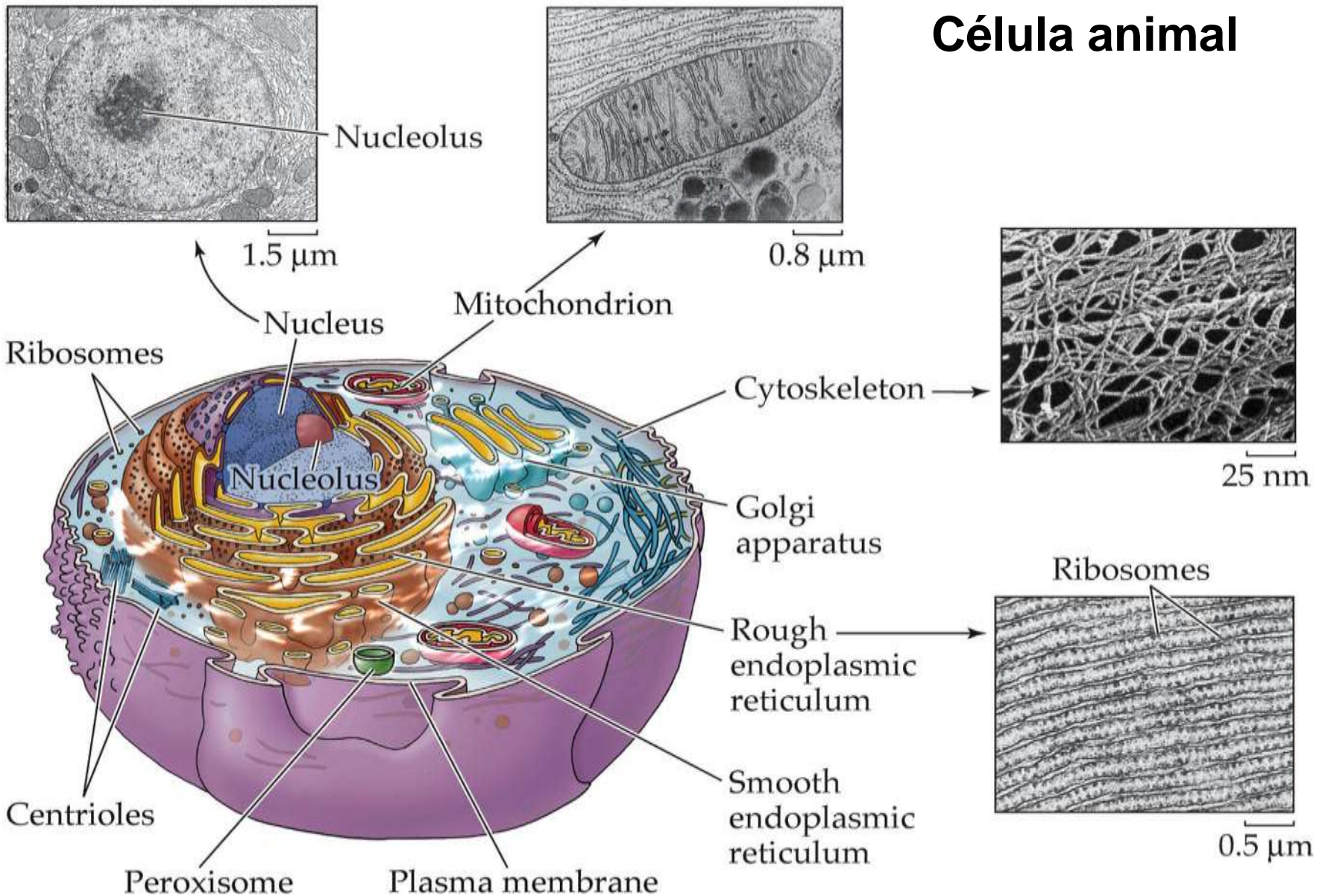


espirilos

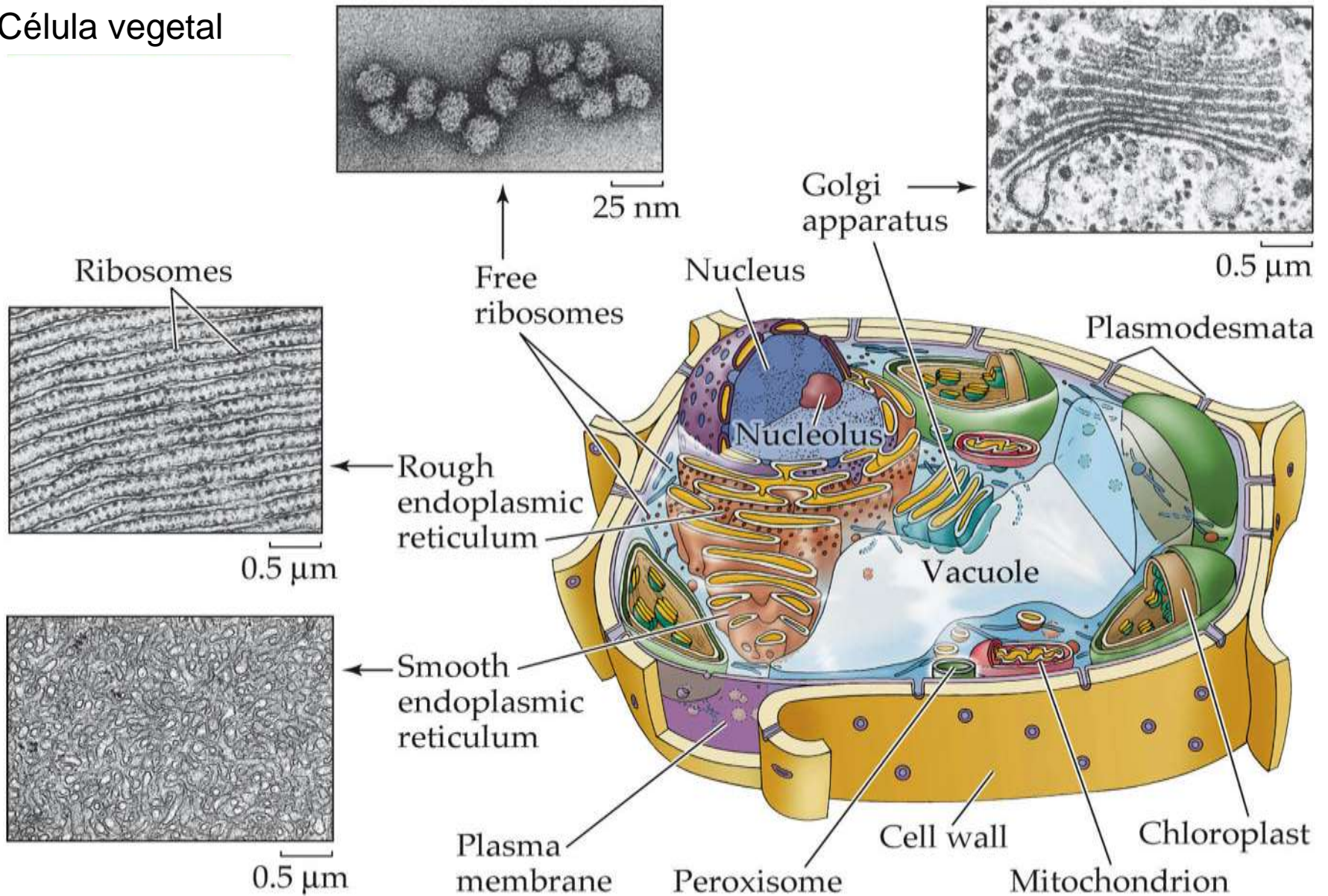
bacilos



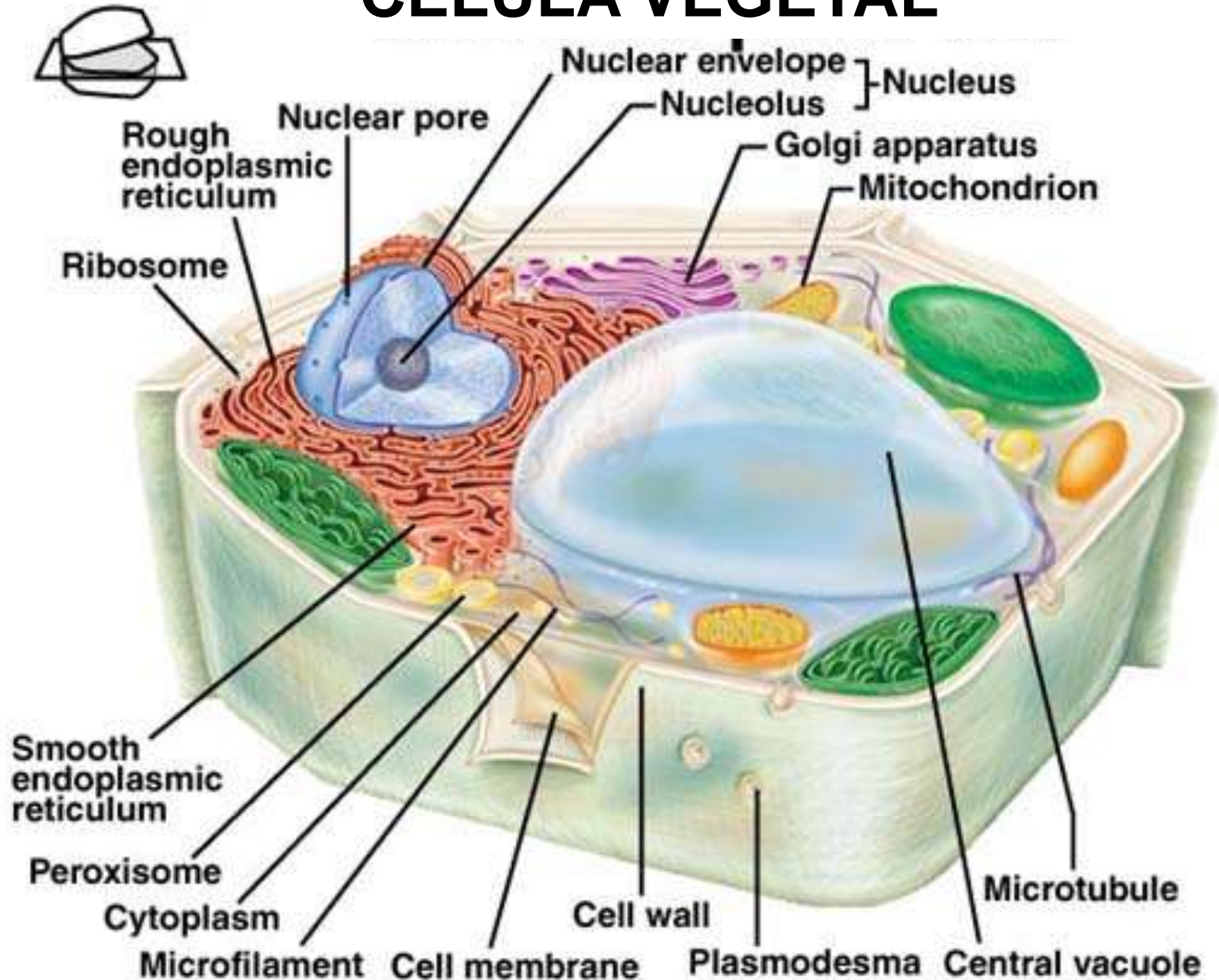
Célula animal

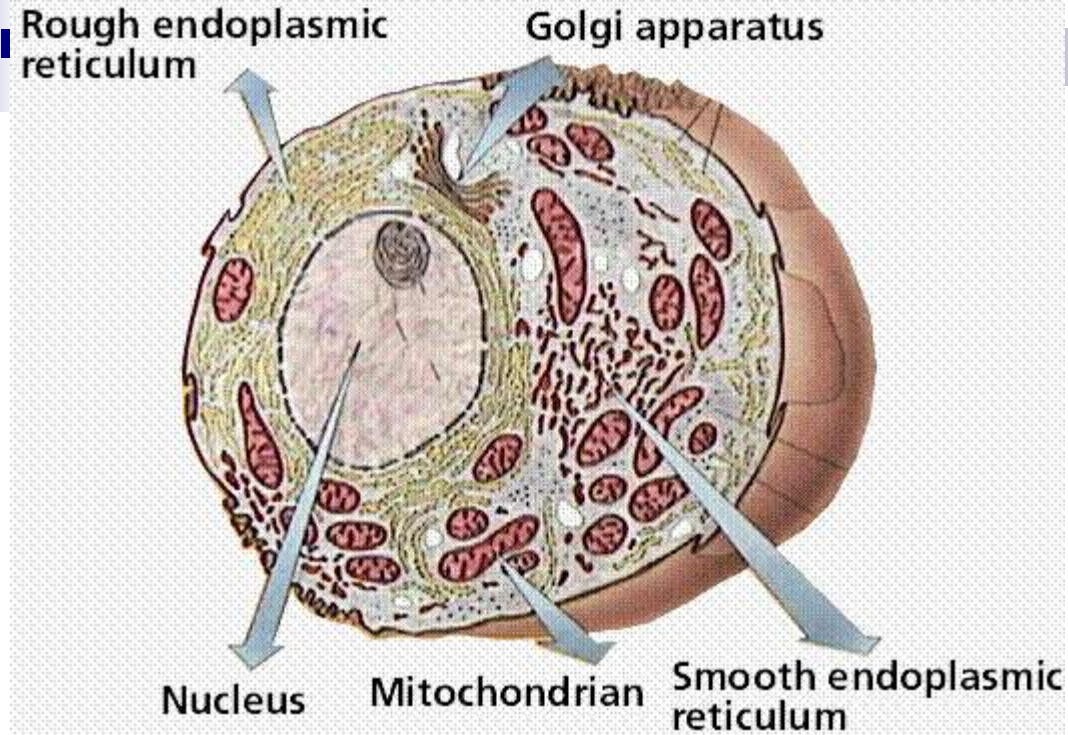


Célula vegetal

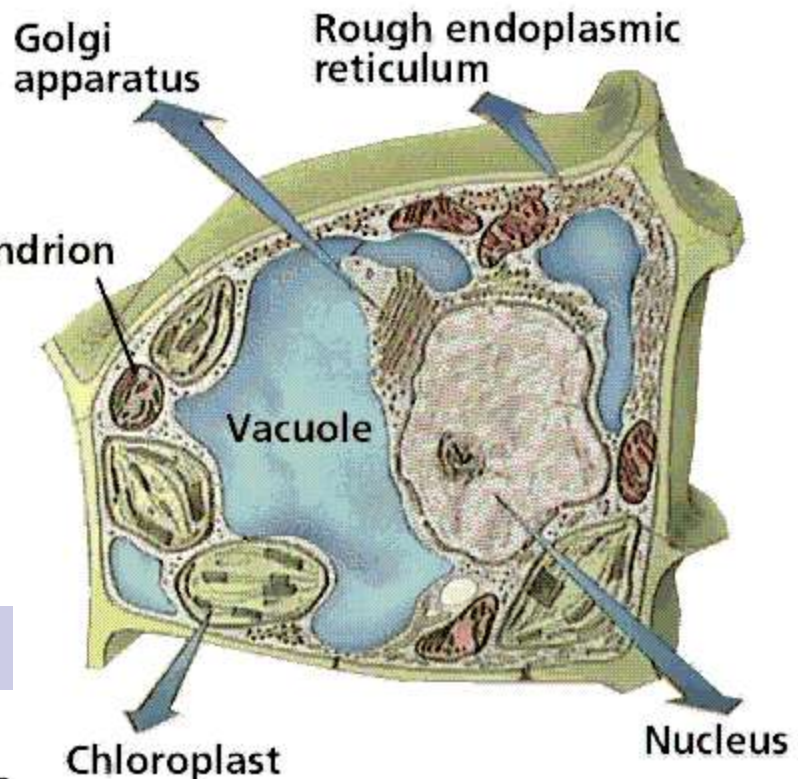


CÉLULA VEGETAL



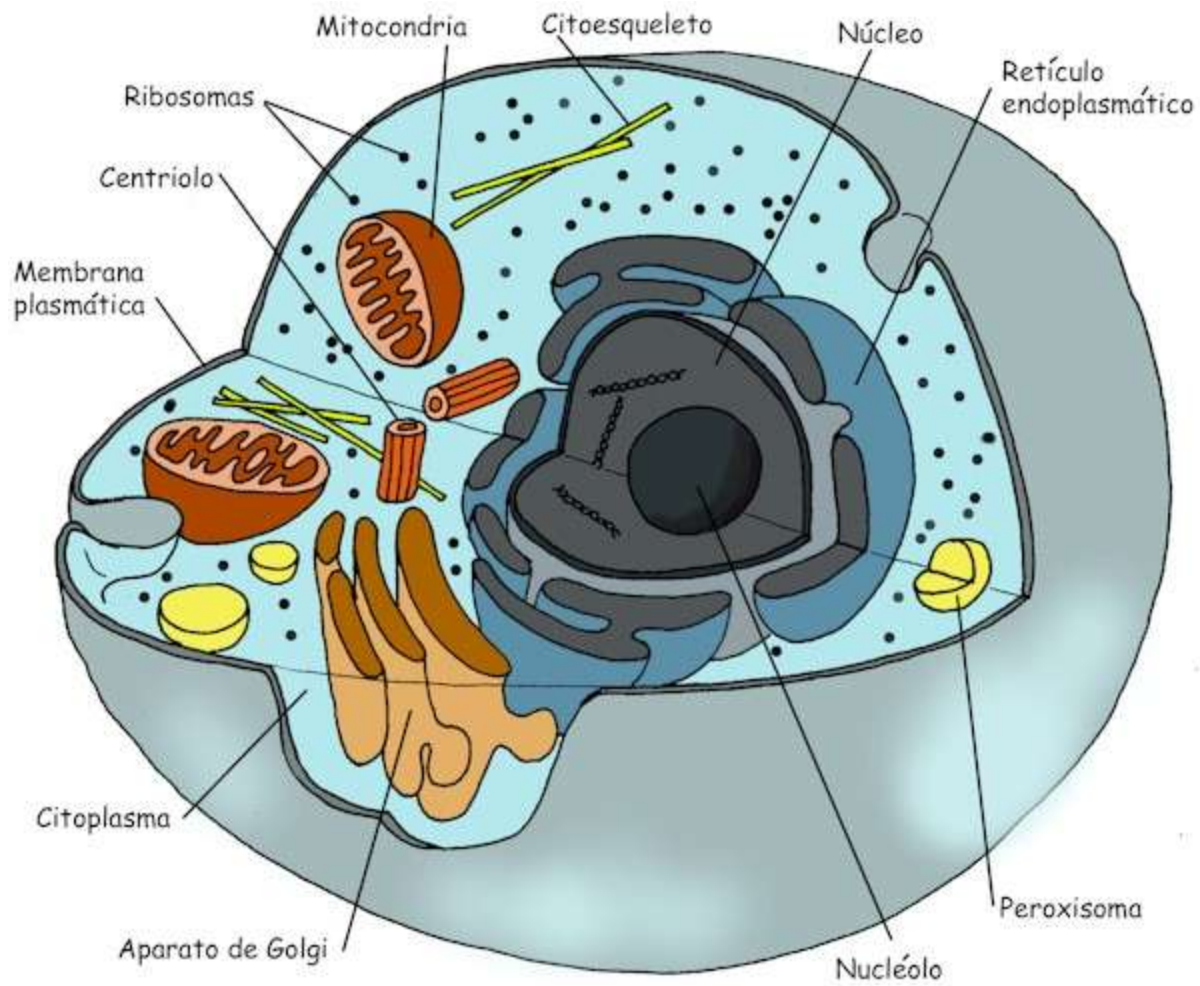


Célula animal



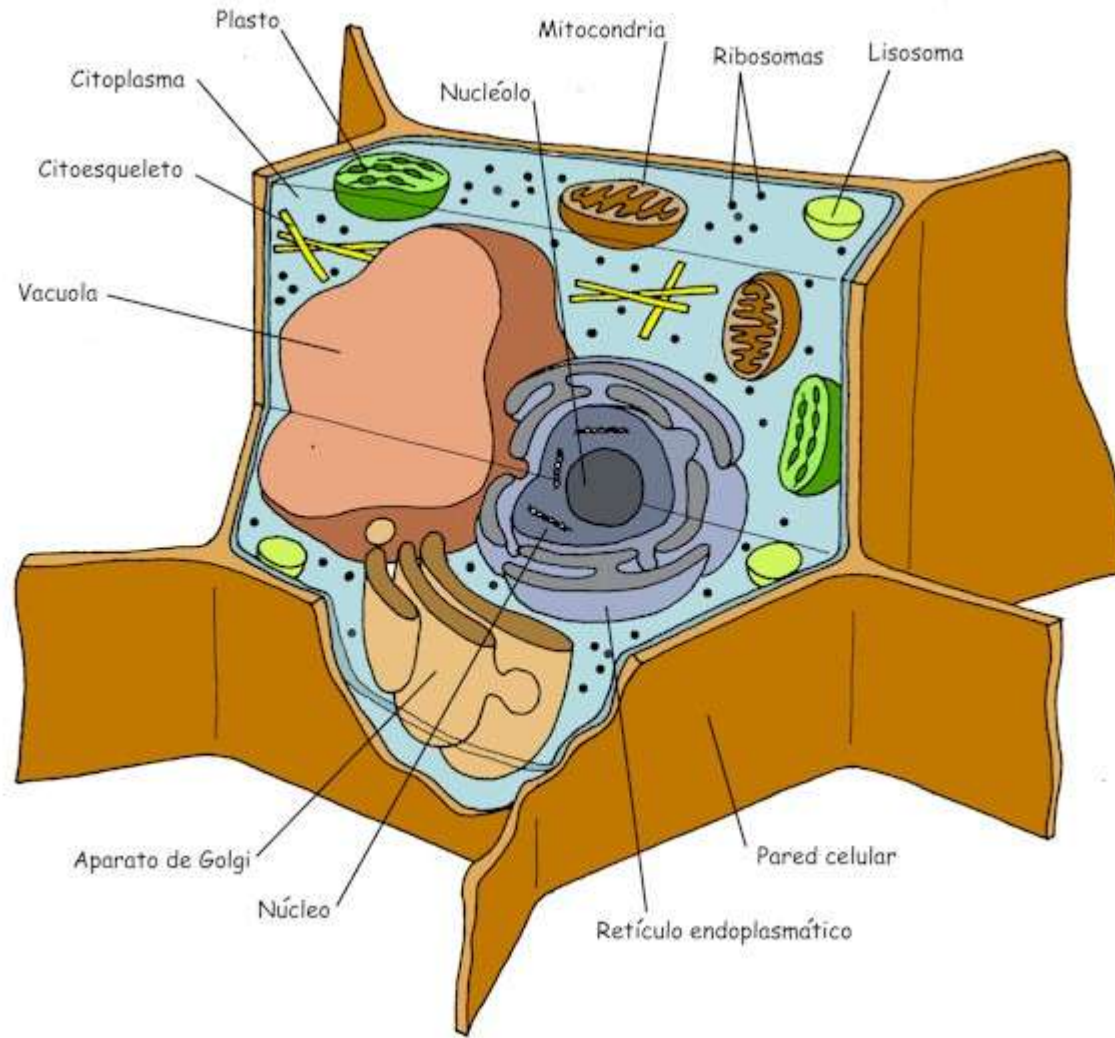
Célula vegetal

Figure 4.8



Célula animal

Célula vegetal



Célula vegetal

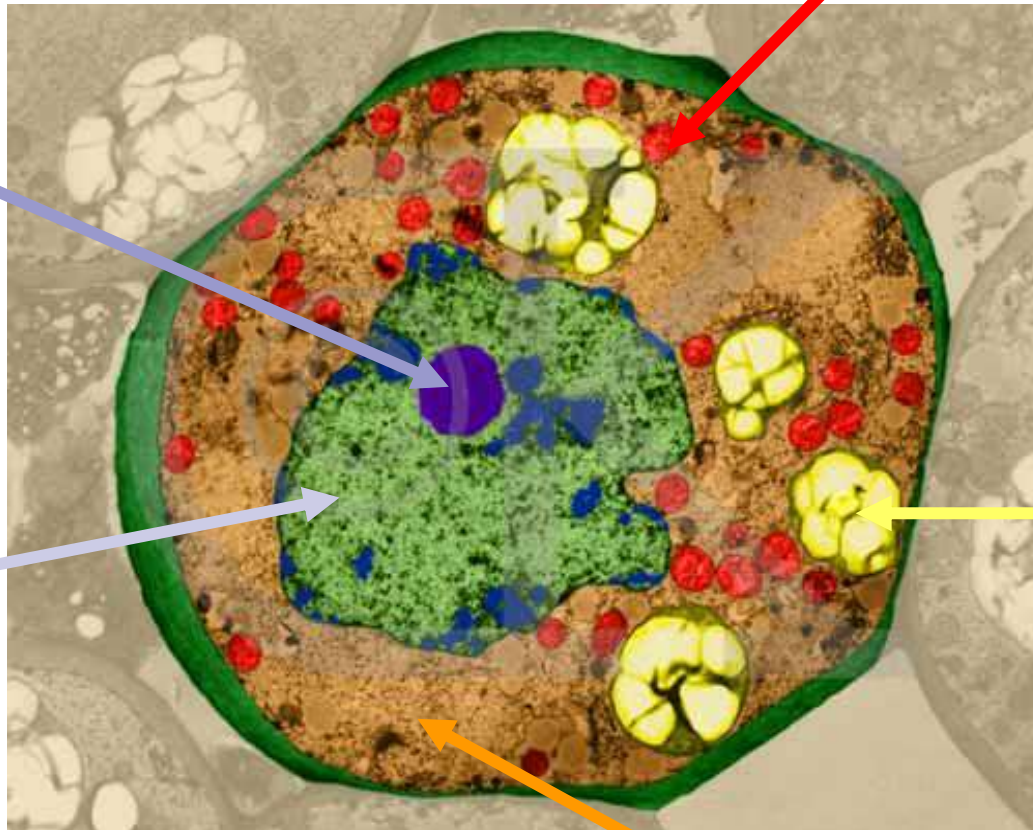
Mitocondrias

Nucleolo

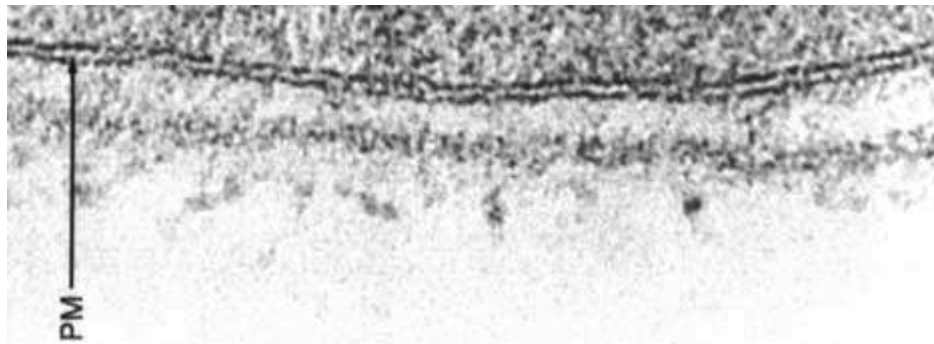
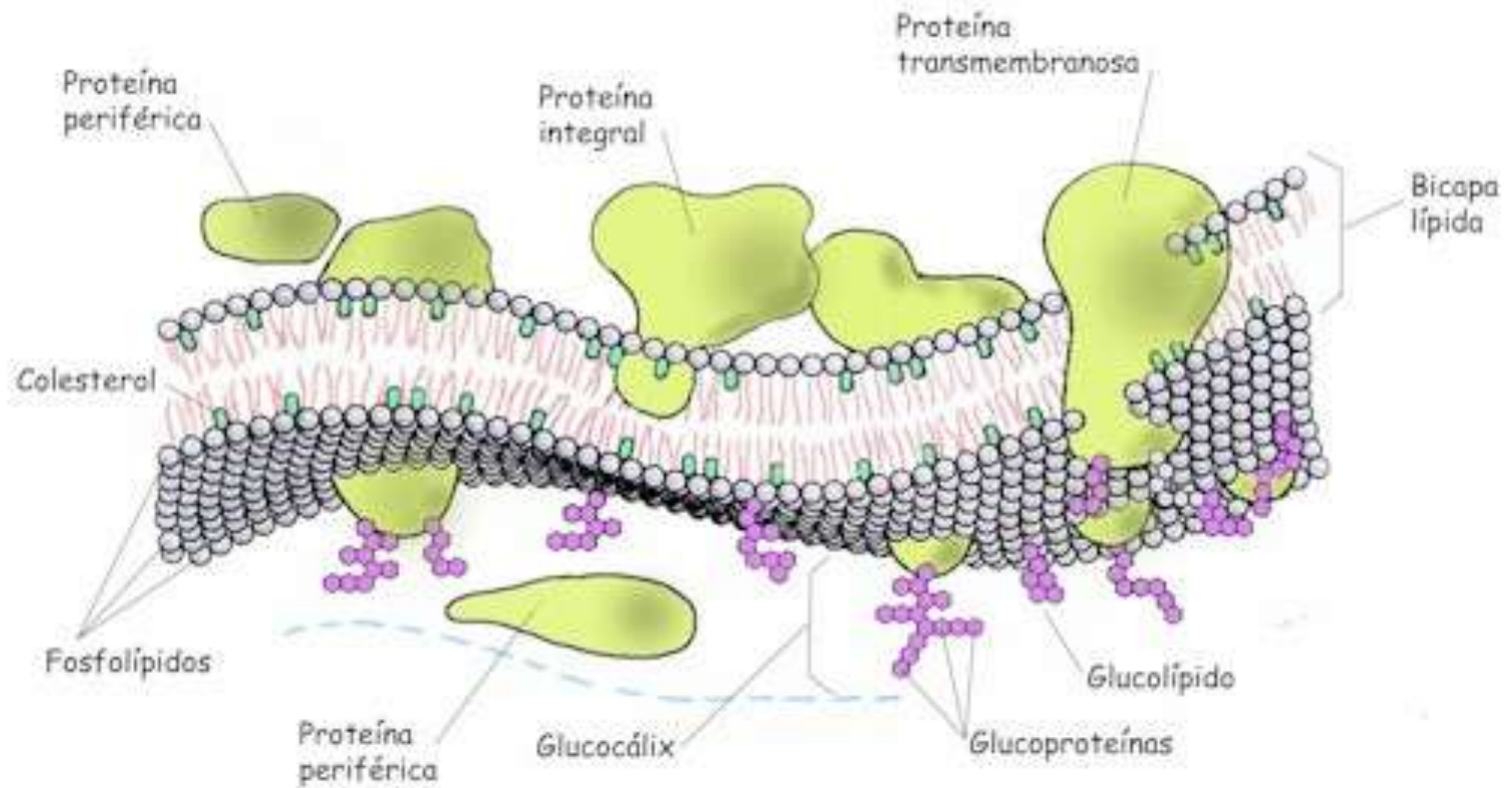
Núcleo

Plastos o plástidos

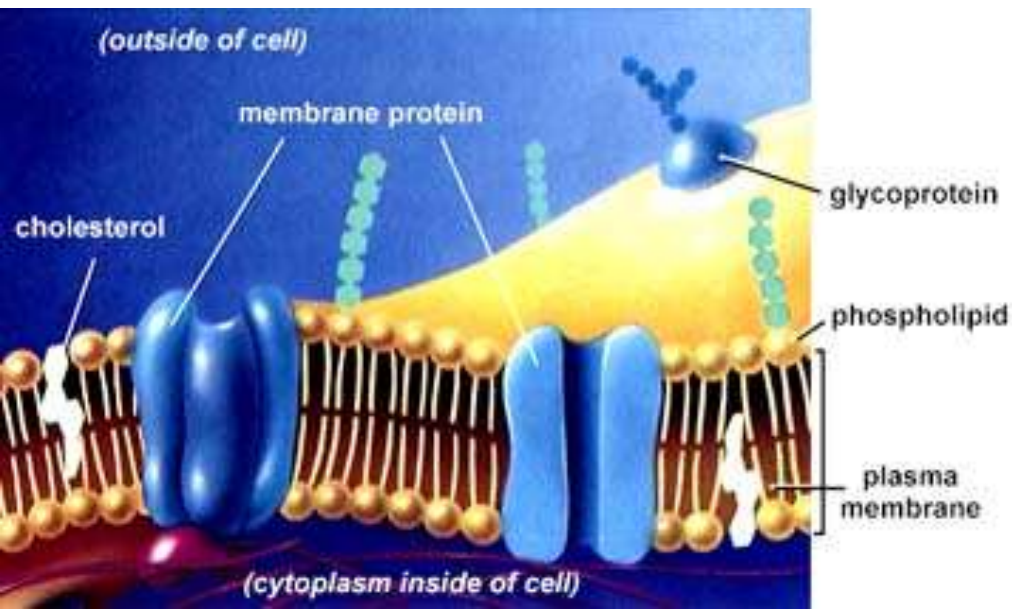
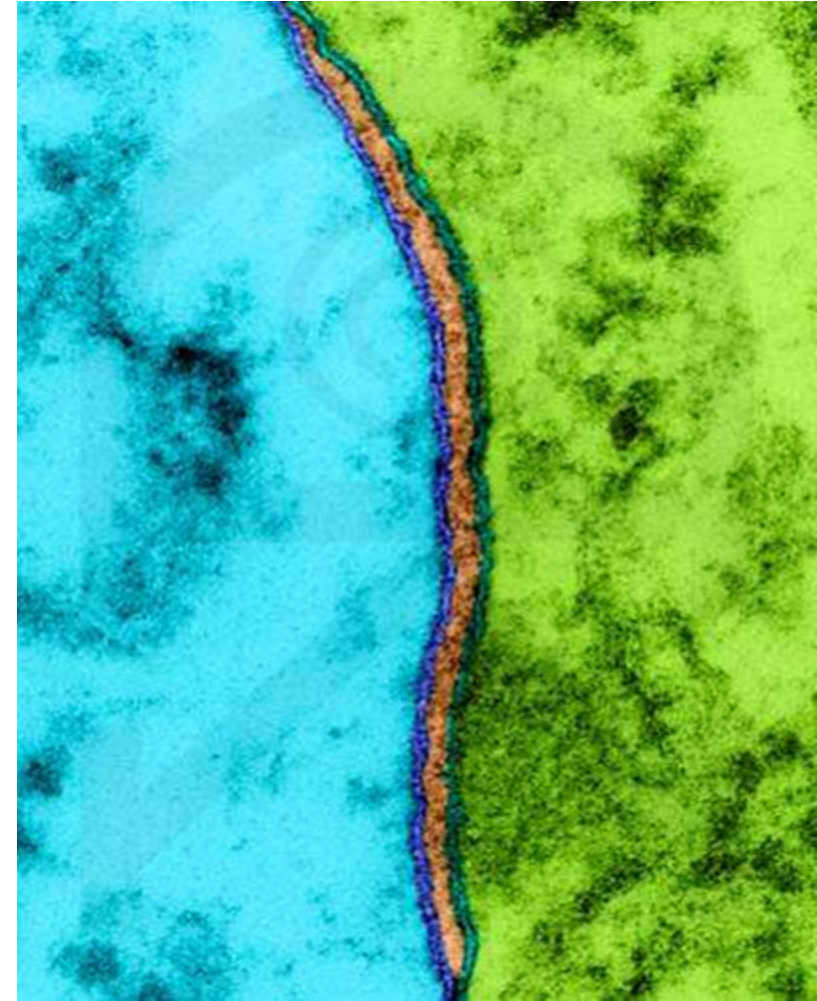
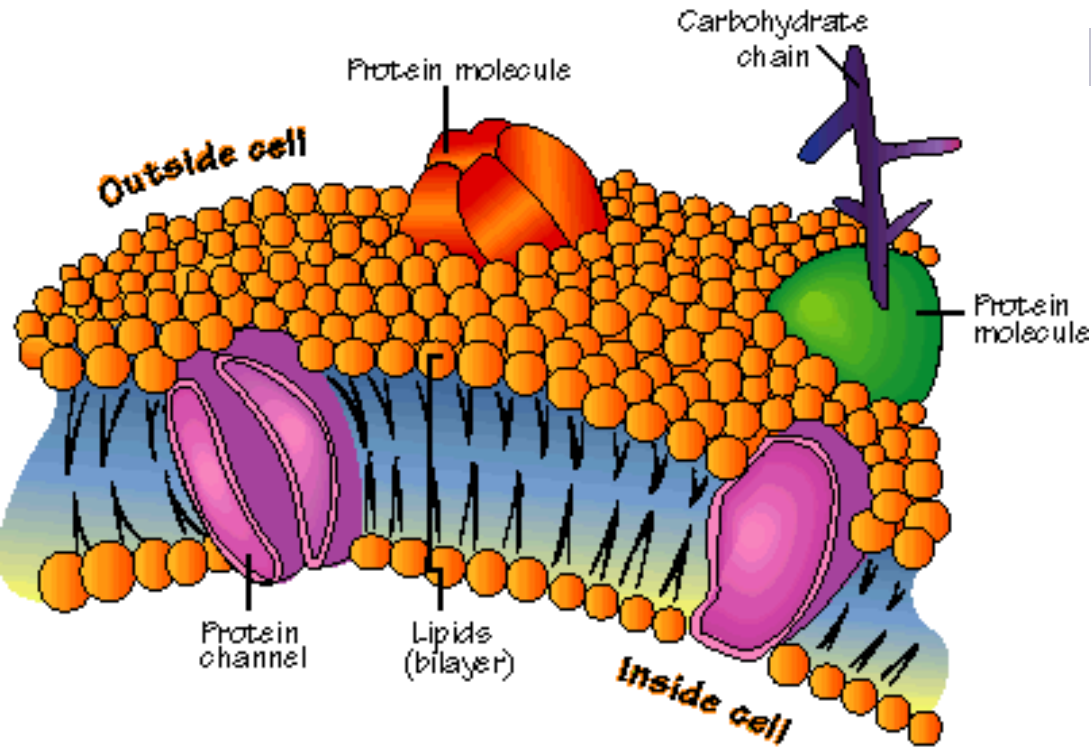
Citoplasma



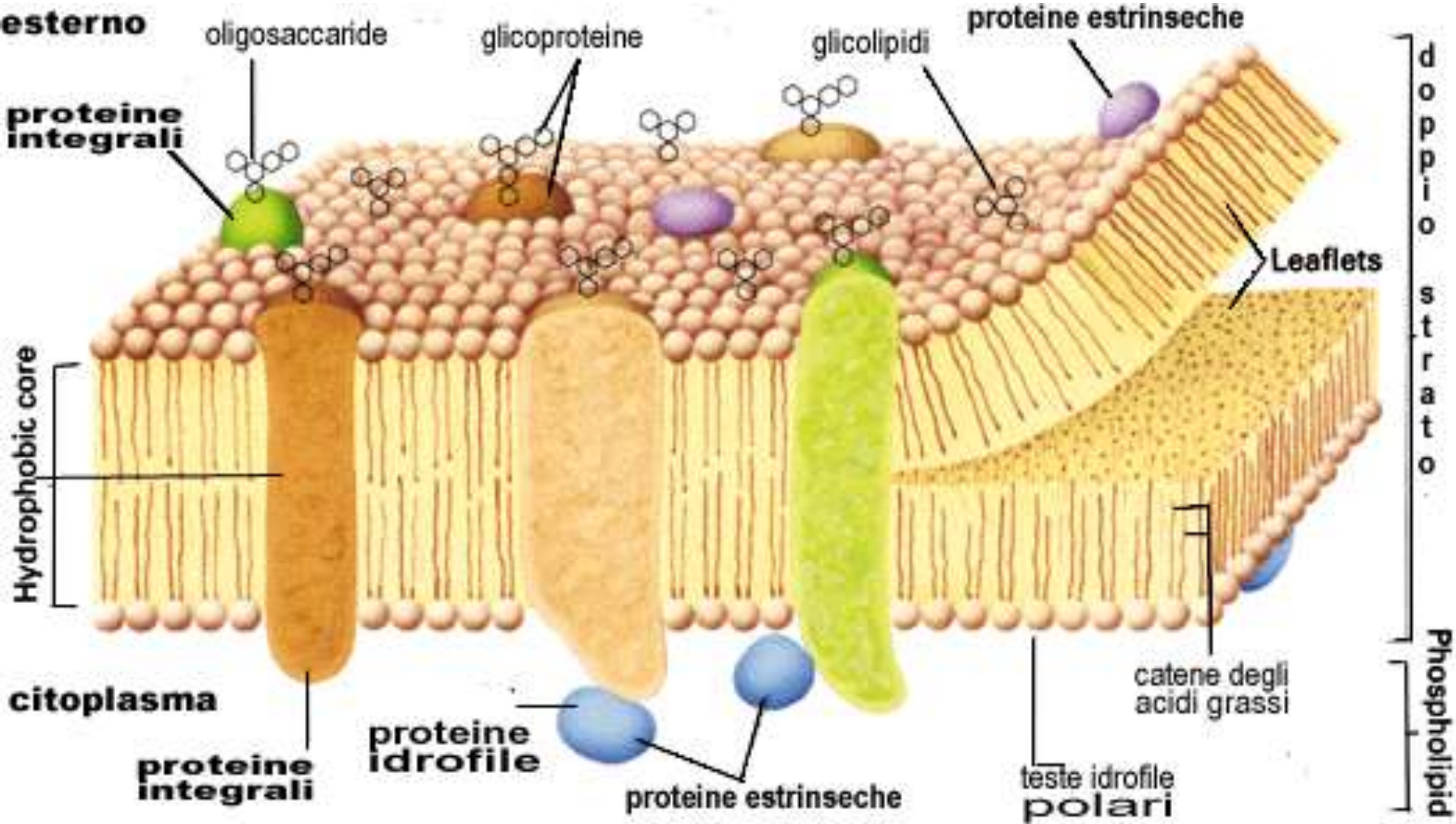
Membrana plasmática



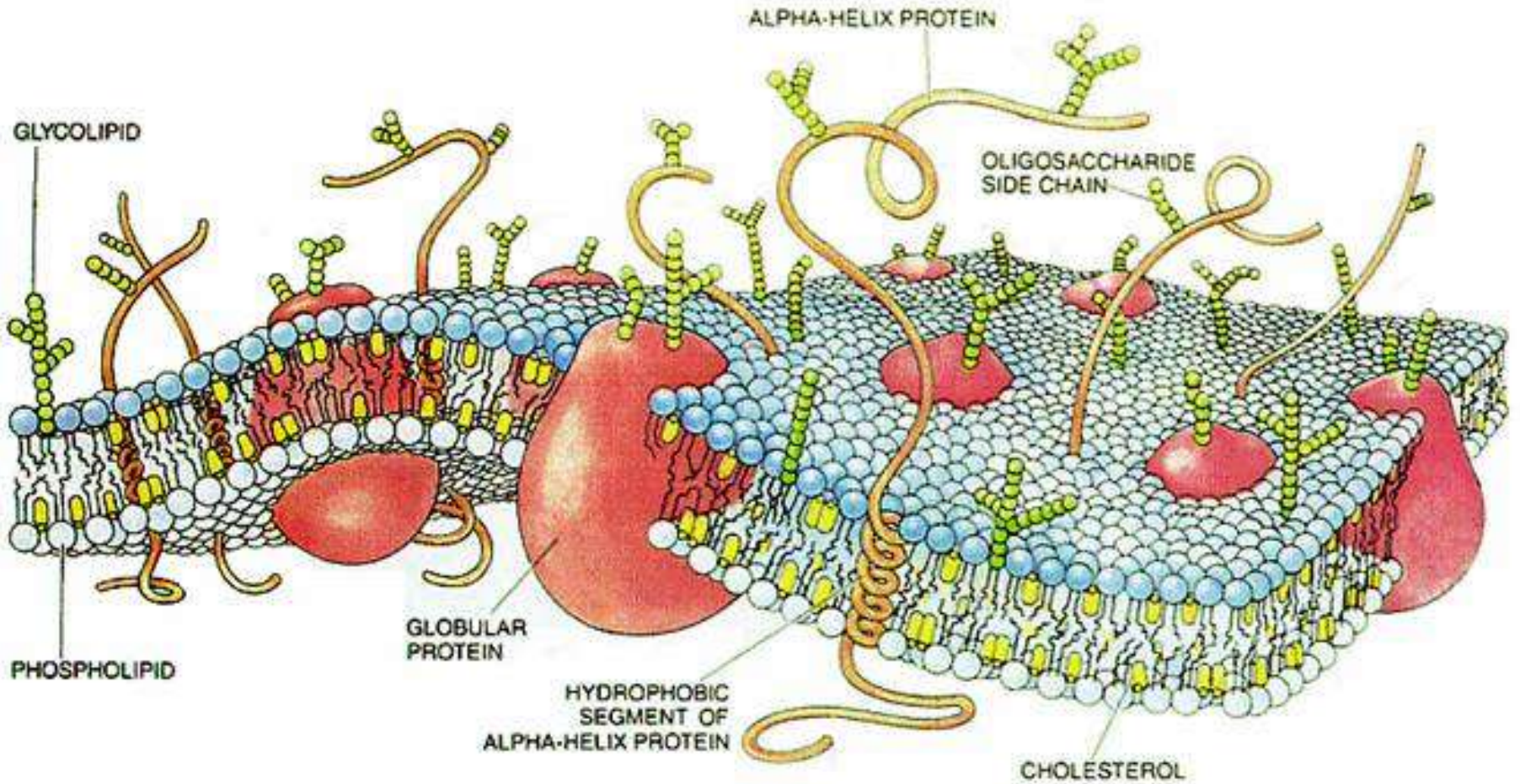
Membrana plasmática



Membrana plasmática

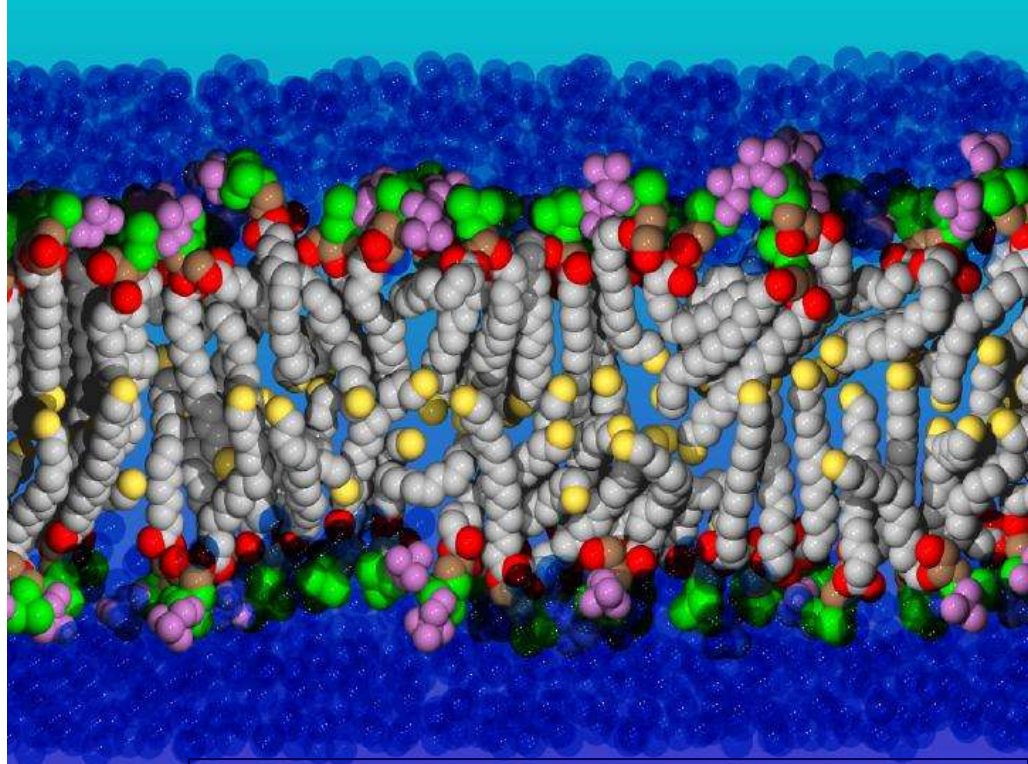
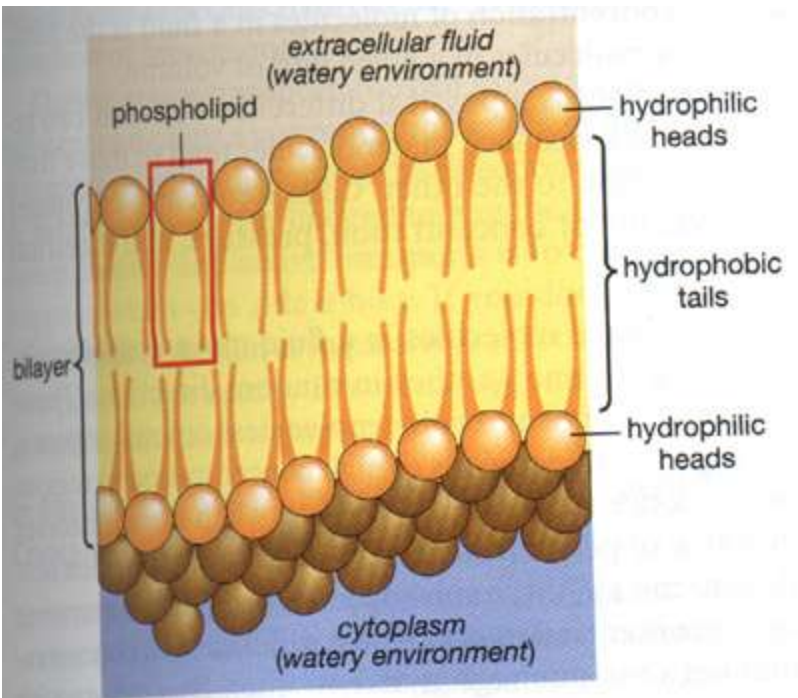
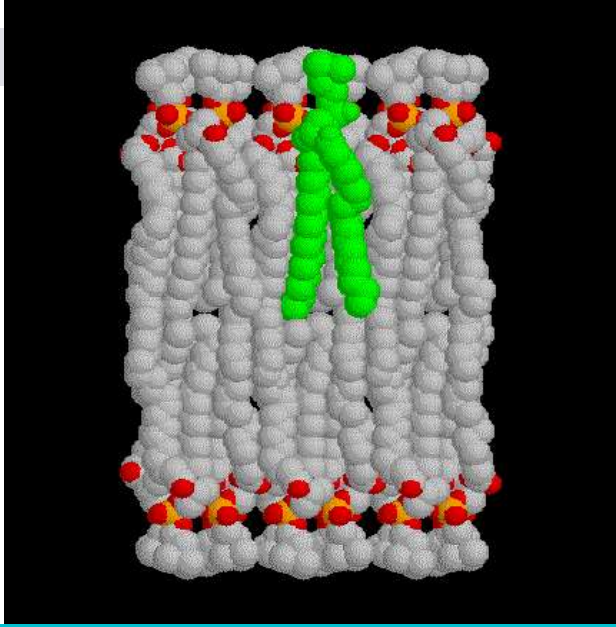
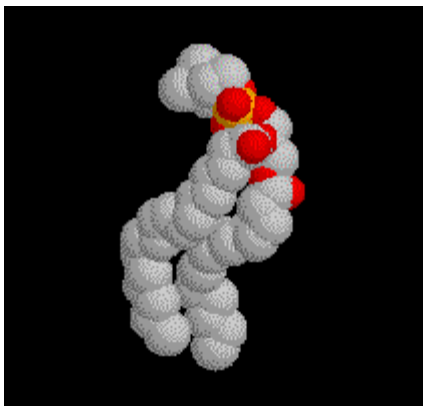
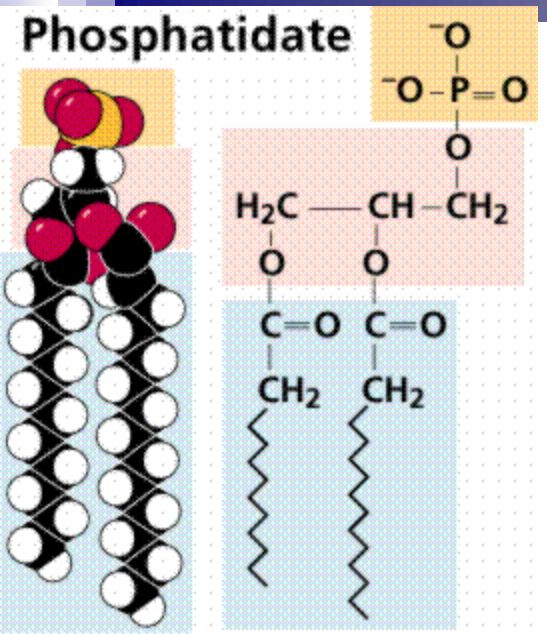


Membrana plasmática

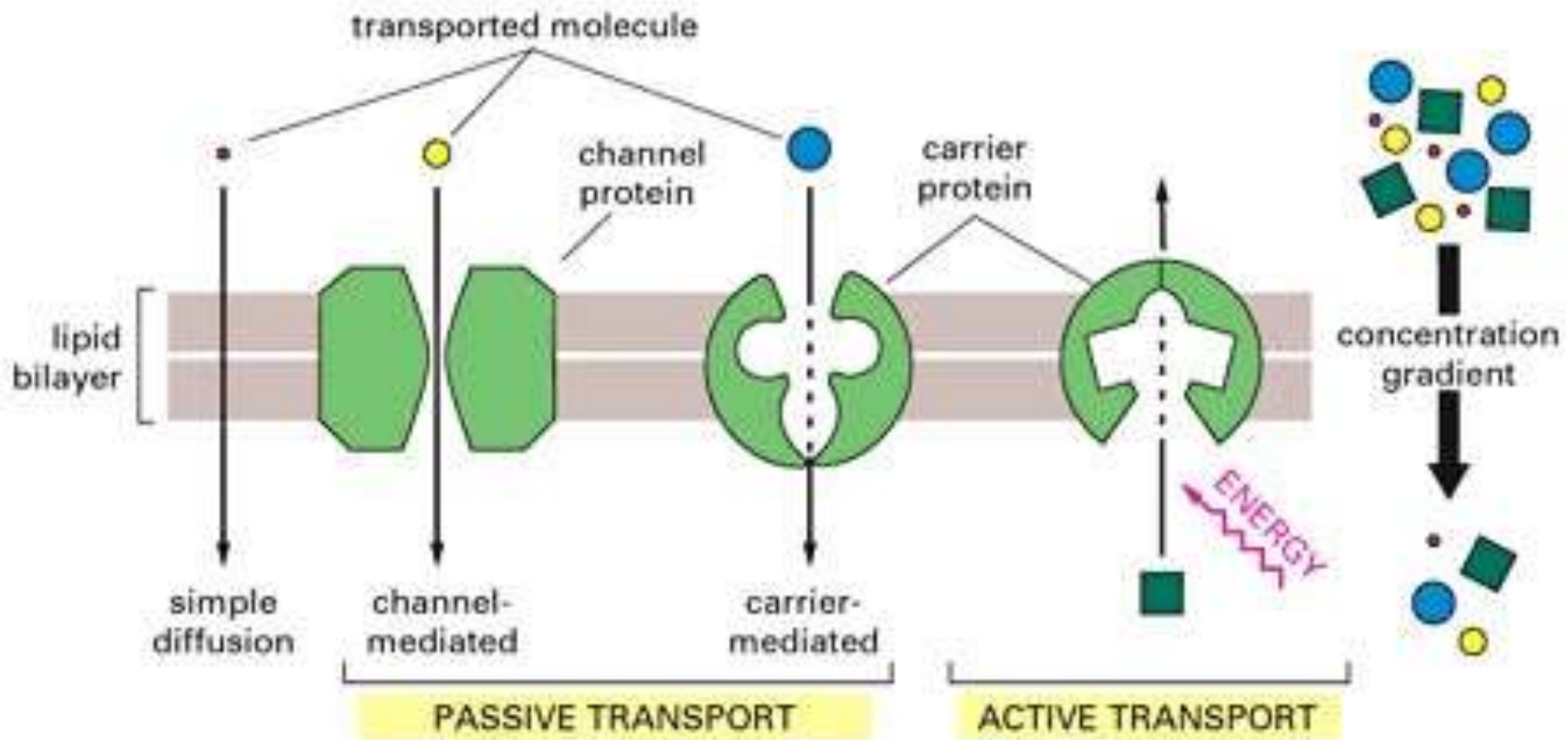


Membrana plasmática

Fosfolípidos

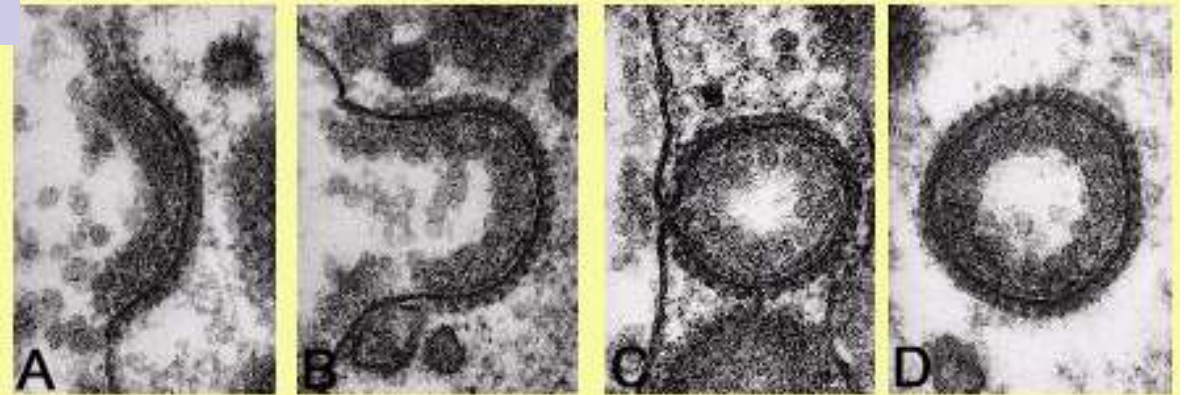


Membrana plasmática

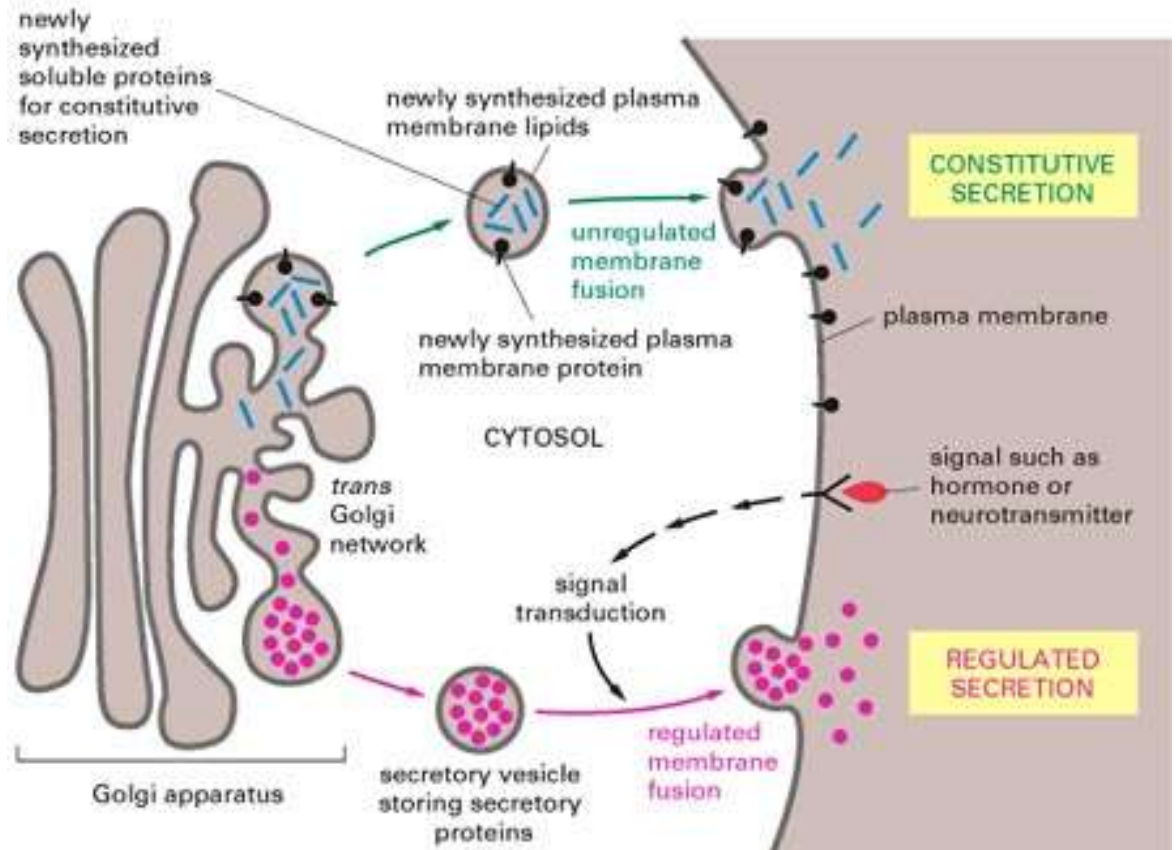


Membrana plasmática

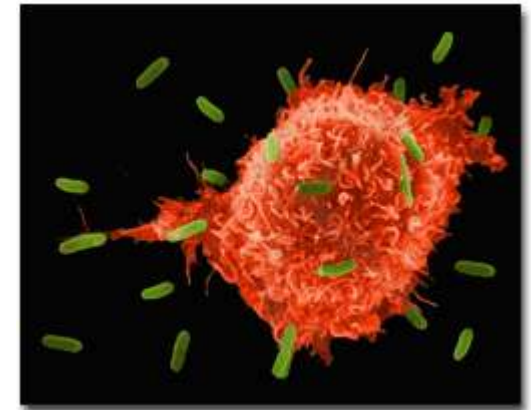
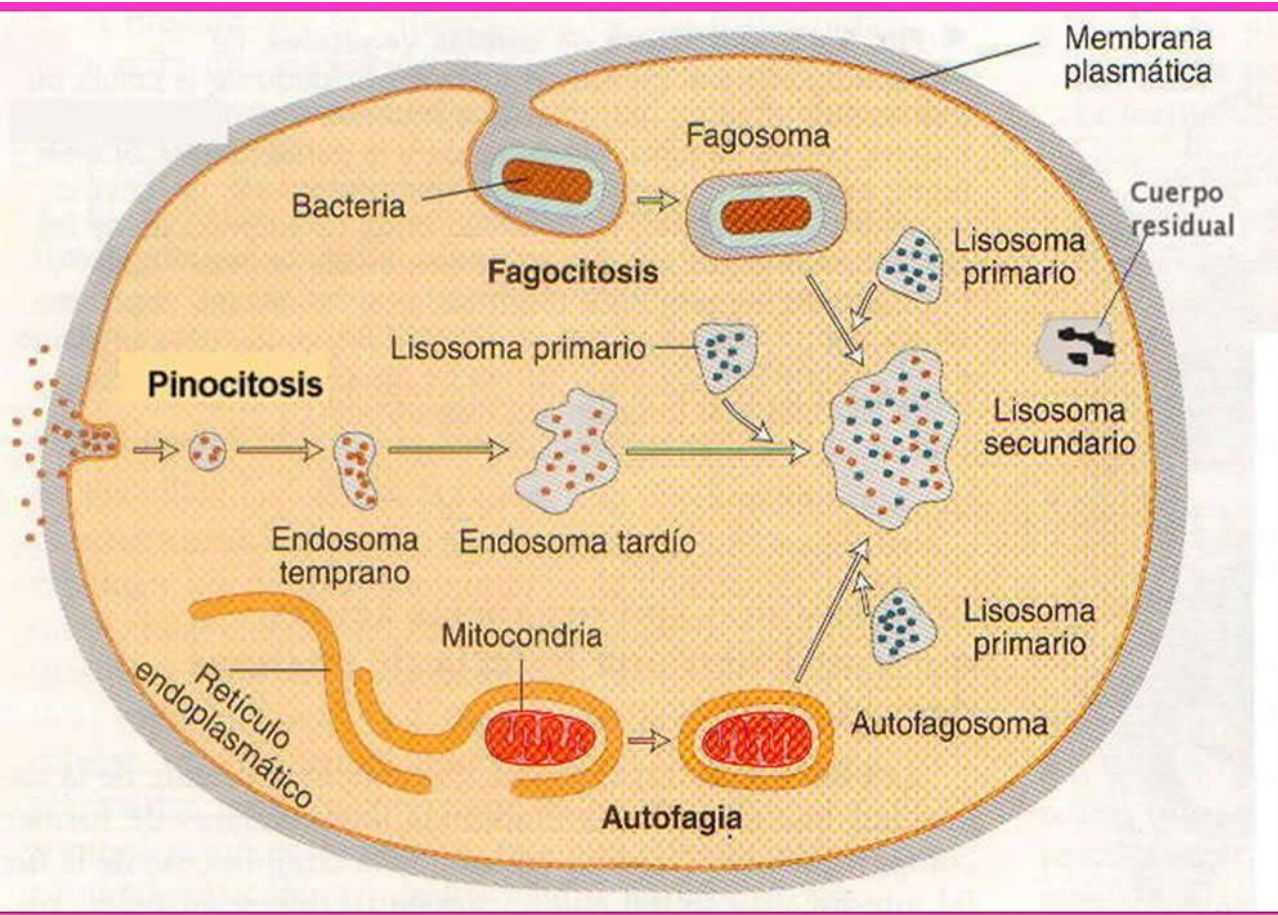
Exocitosis



Endocitosis



Membrana plasmática

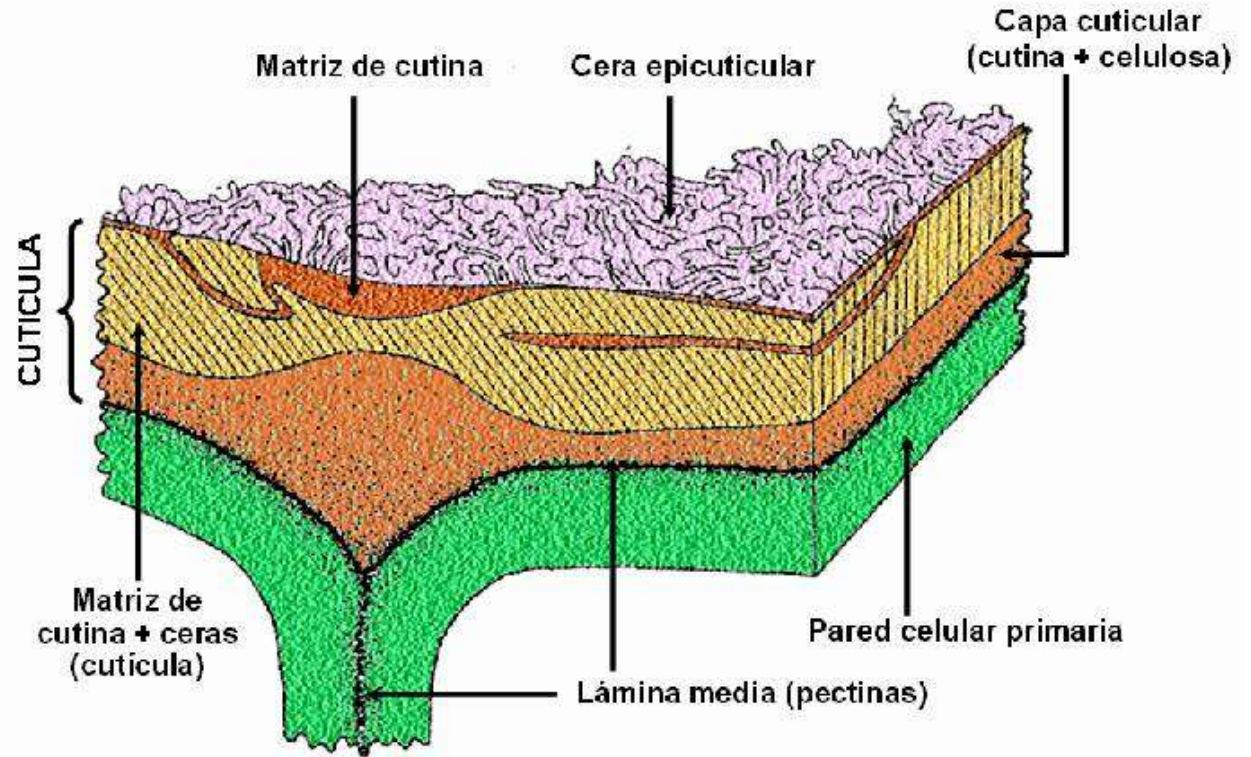
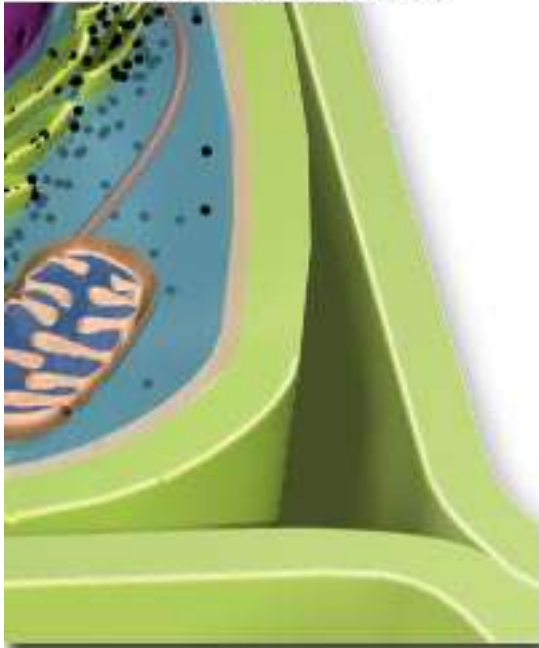


Fagocitosis:
Linfocito T atacando E. coli

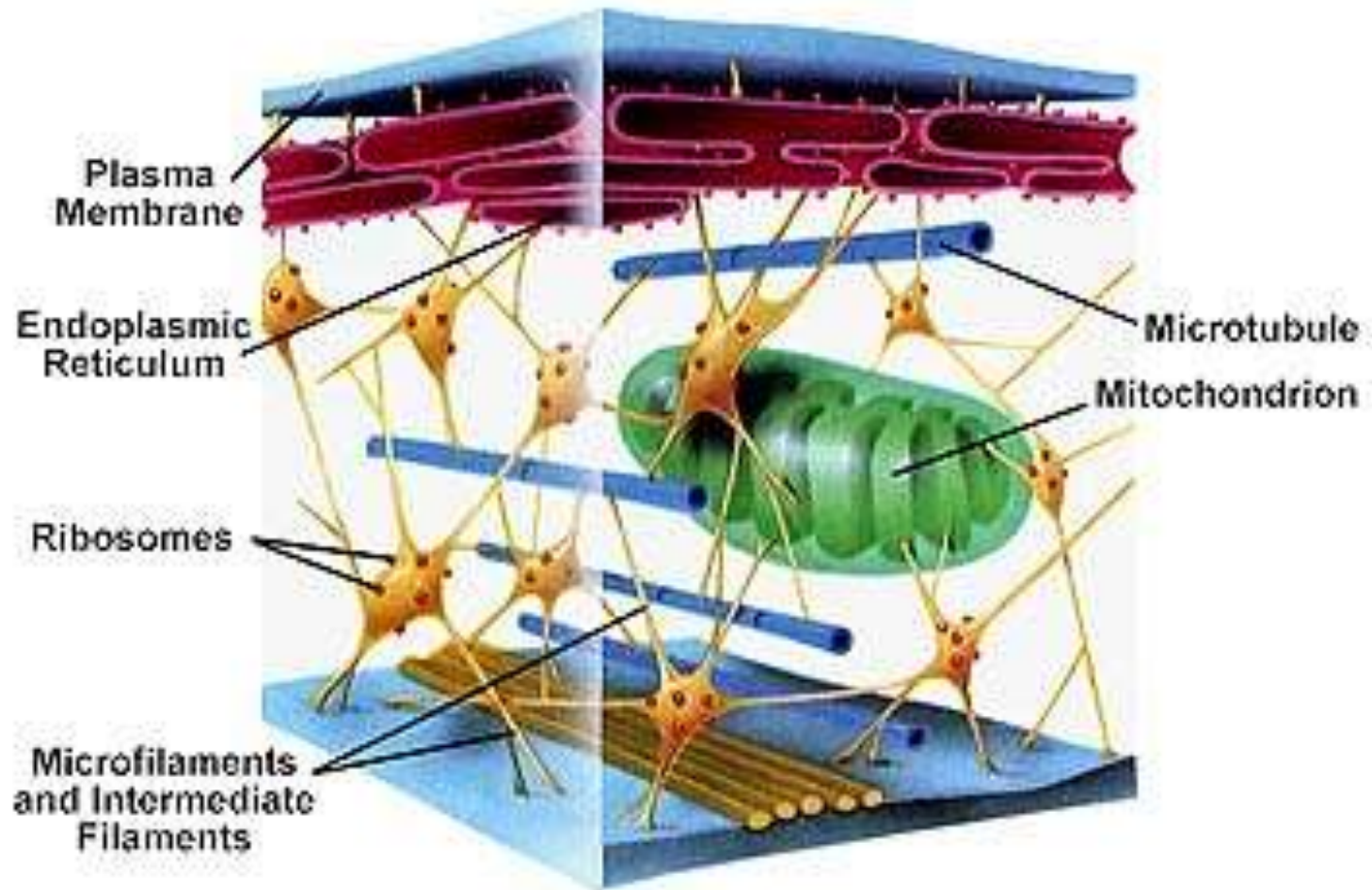
Fagocitosis
Pinocitosis
Autofagia

Pared celular (vegetal)

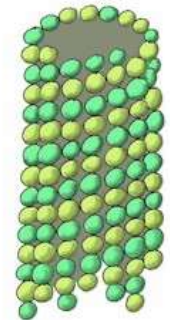
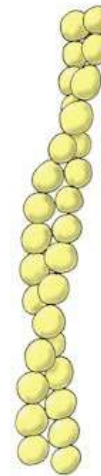
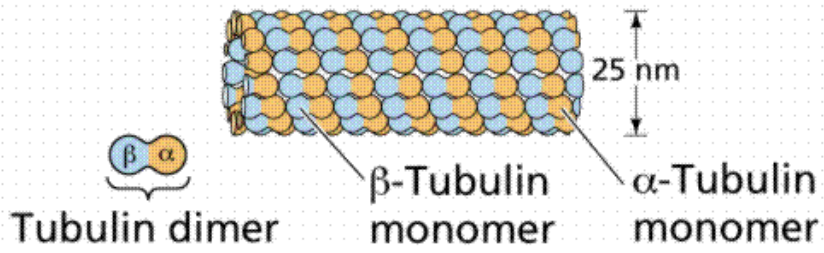
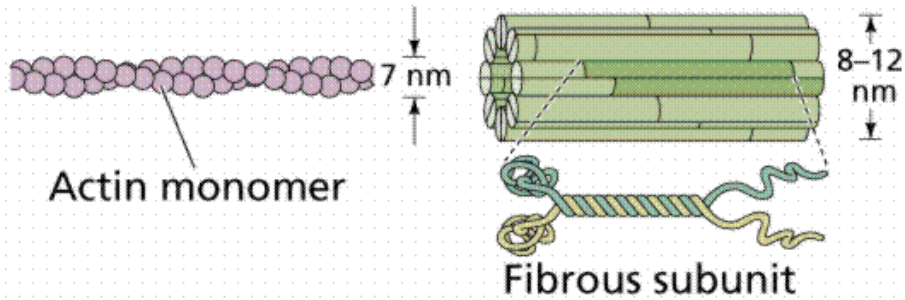
Pared celular vegetal



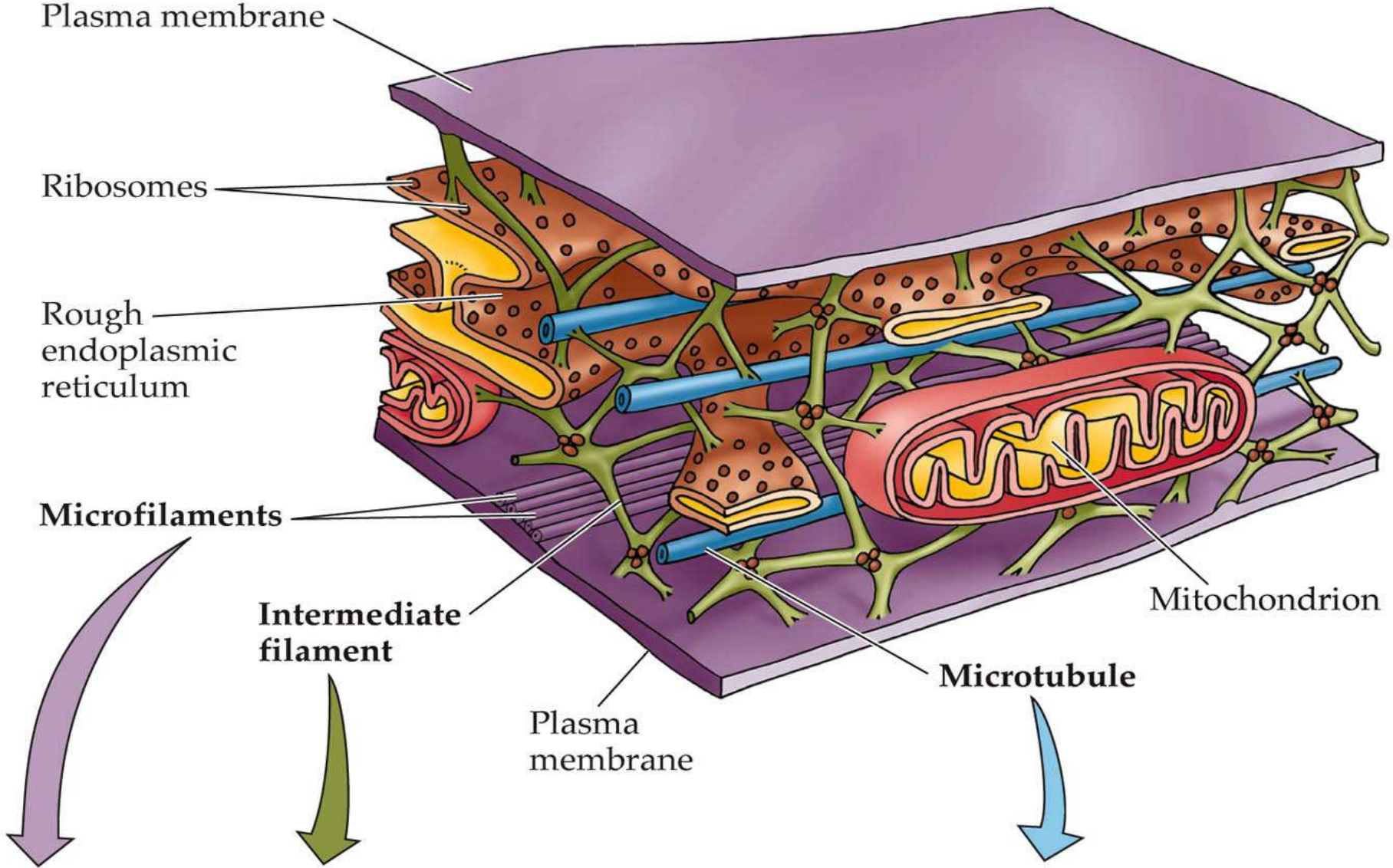
Citoesqueleto



Citoesqueleto

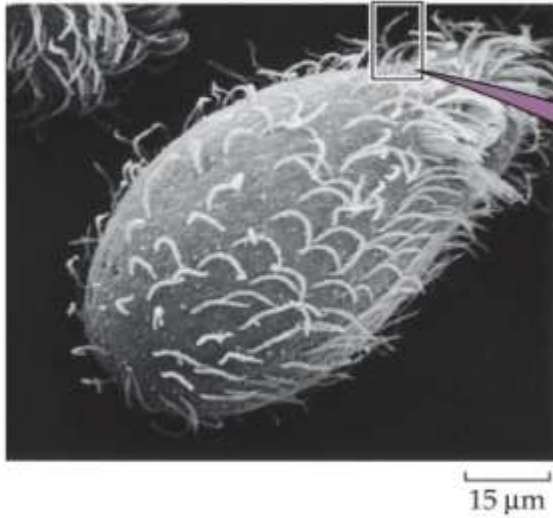


Citoesqueleto

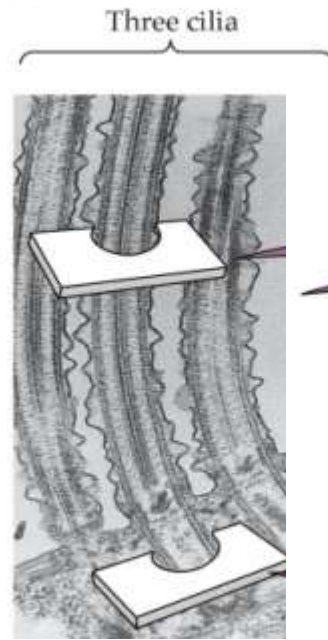


Citoesqueleto

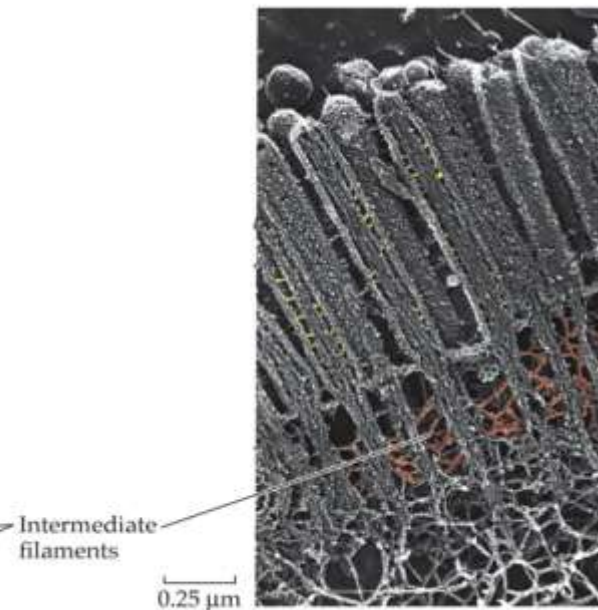
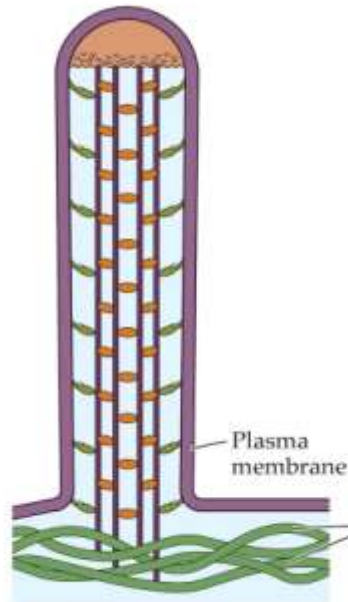
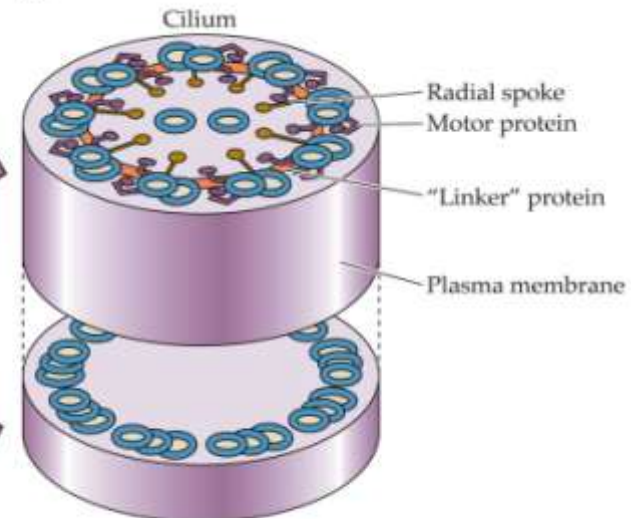
(a)



(b)

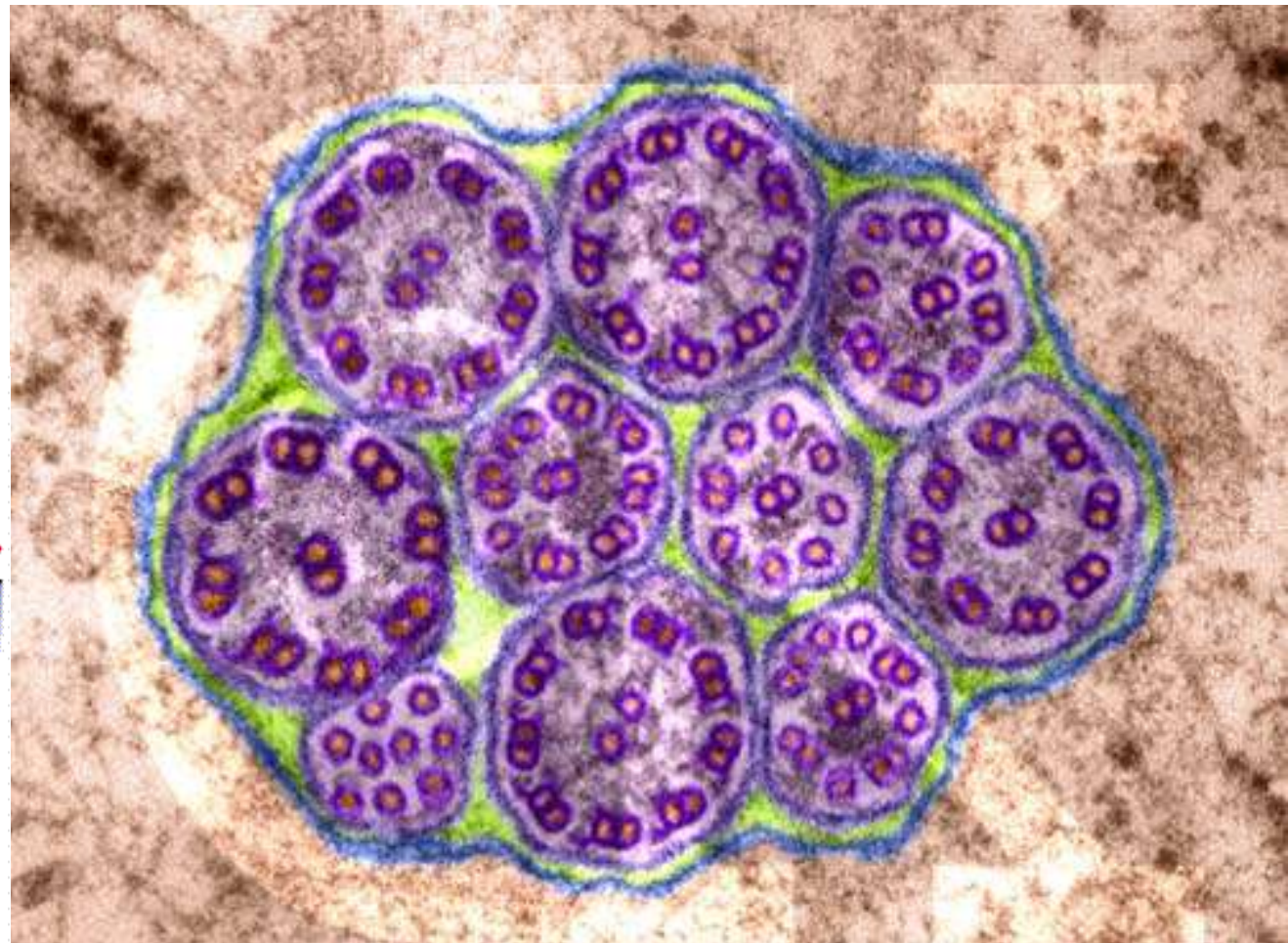
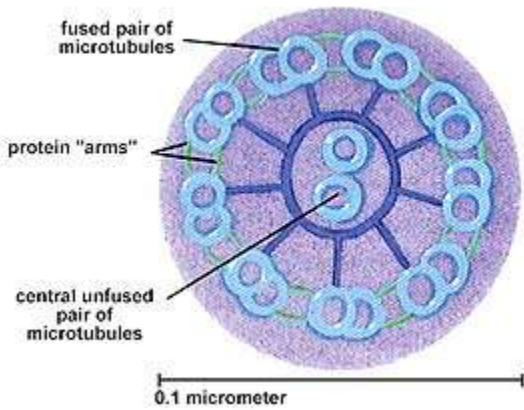


(c)

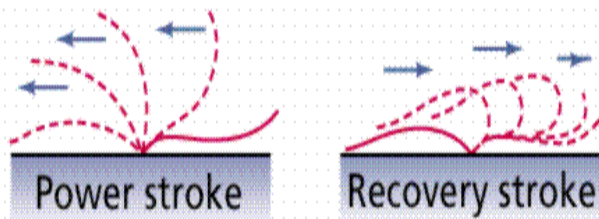


Cilios y flagelos (microtúbulos)

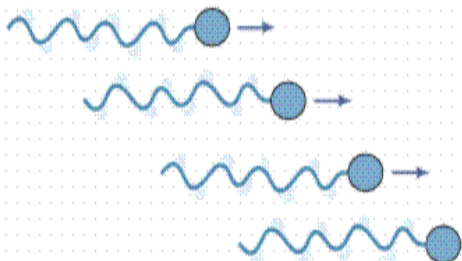
9 + 2



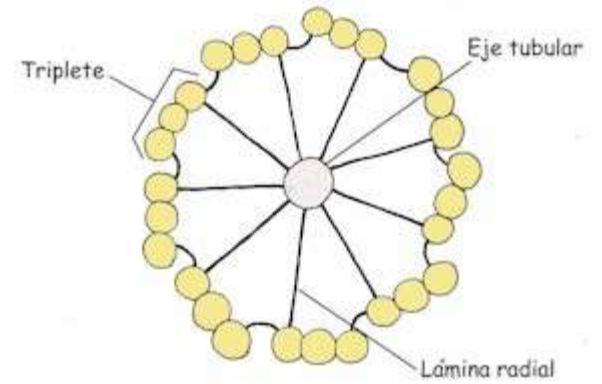
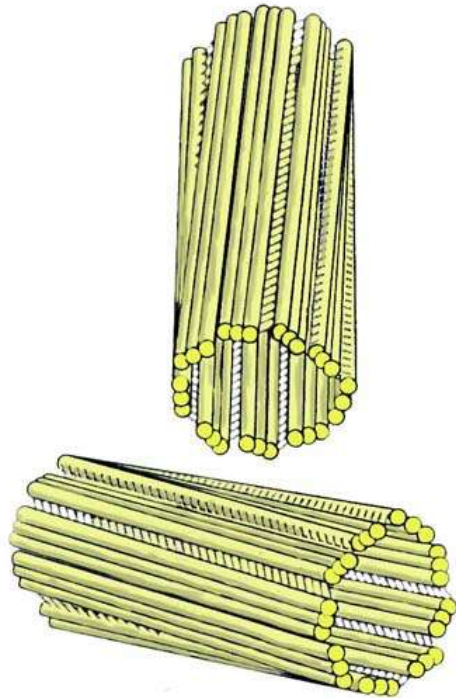
Movement of cilium



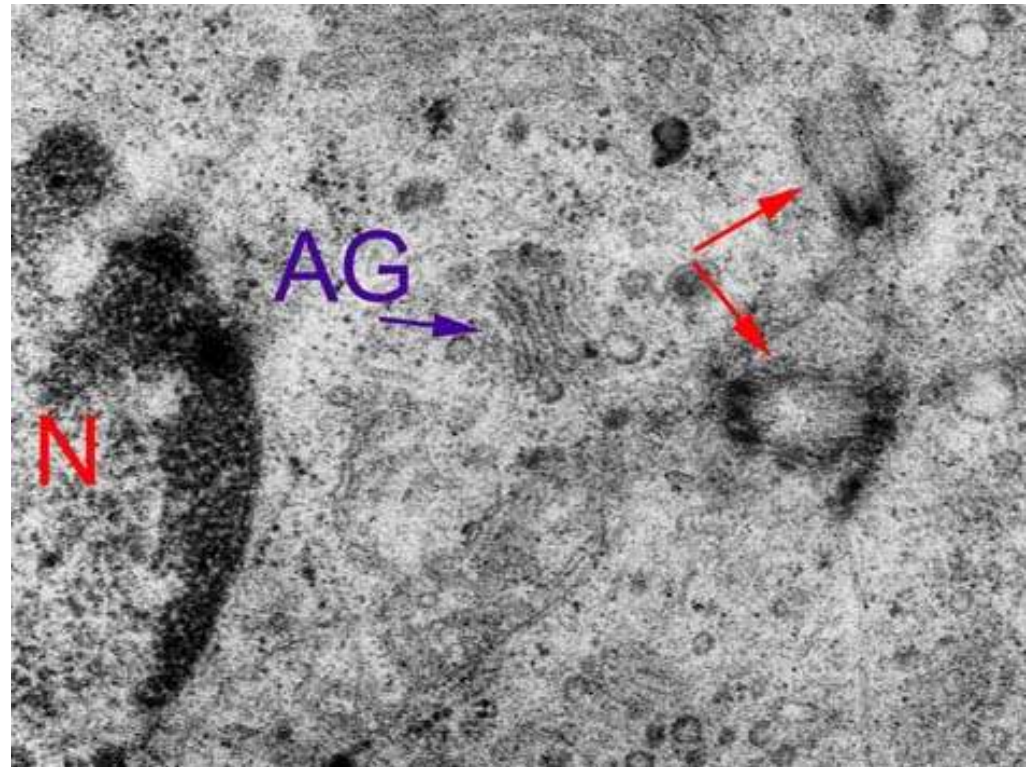
Movement of flagellum



Centrosoma

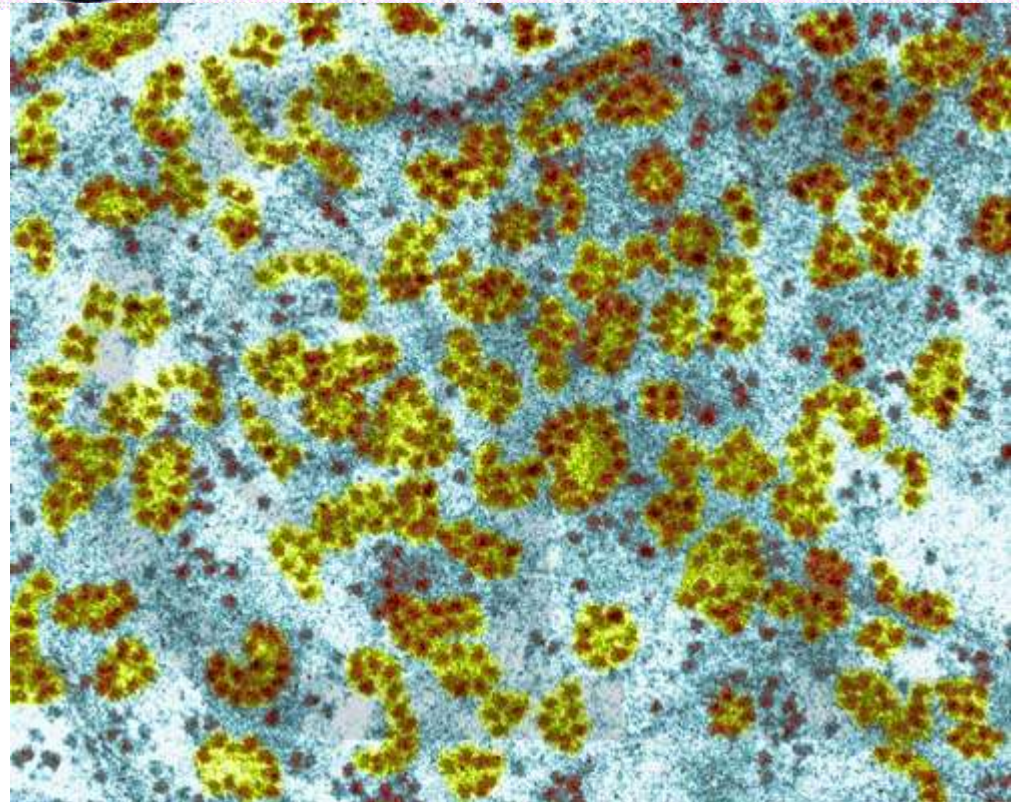
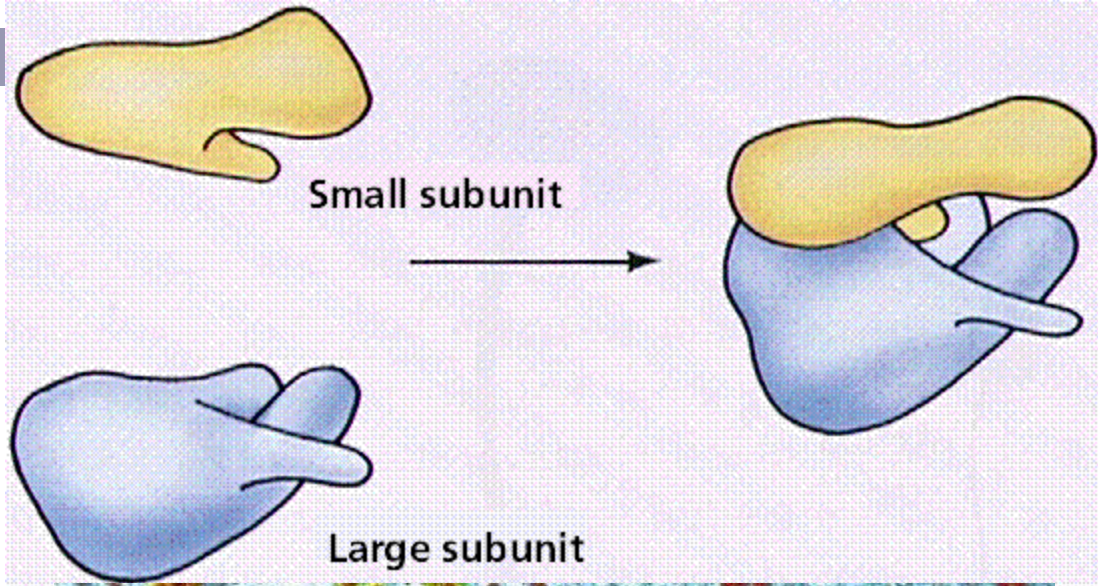
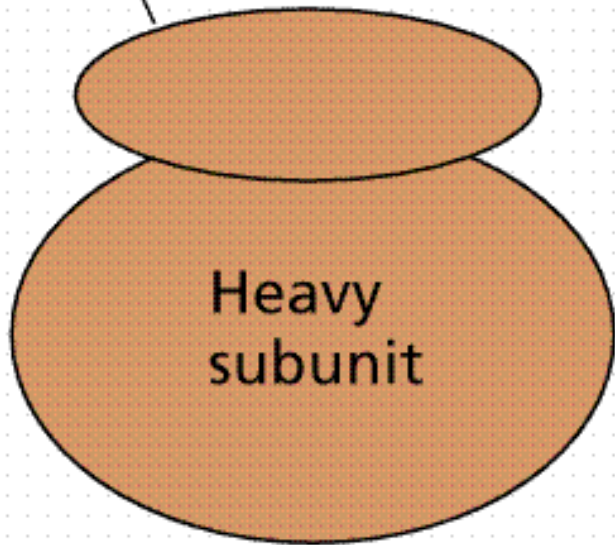


Estructura de cada centríolo

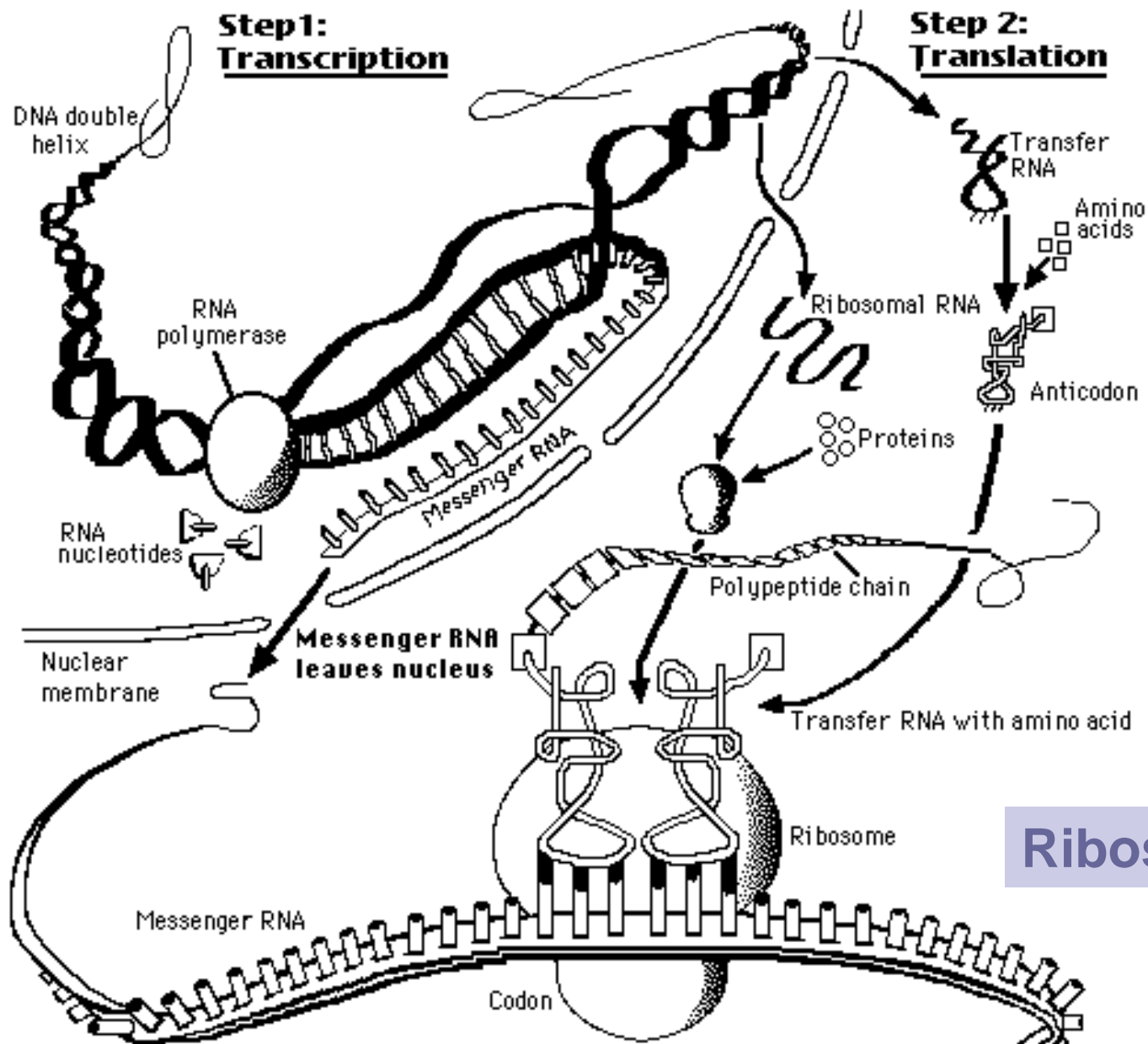


Ribosomas

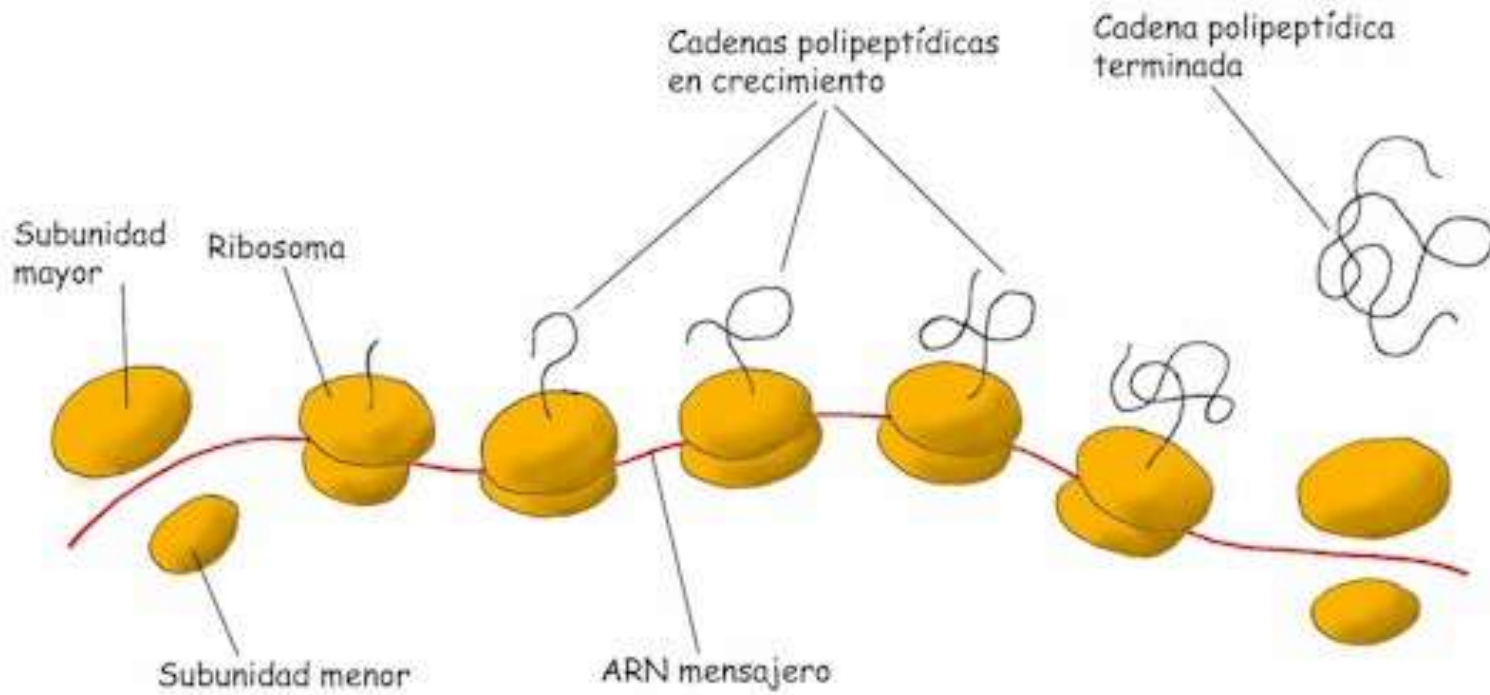
Ribosome
Light subunit



PROTEIN SYNTHESIS

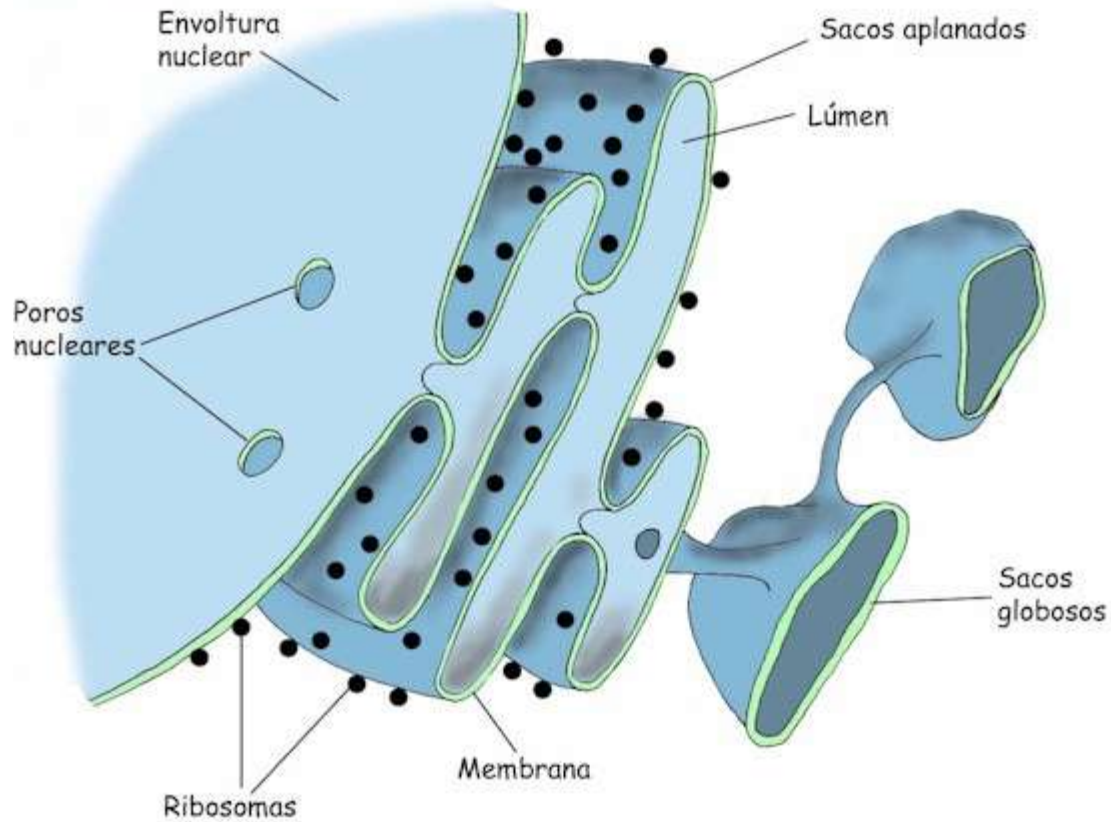


Ribosomas

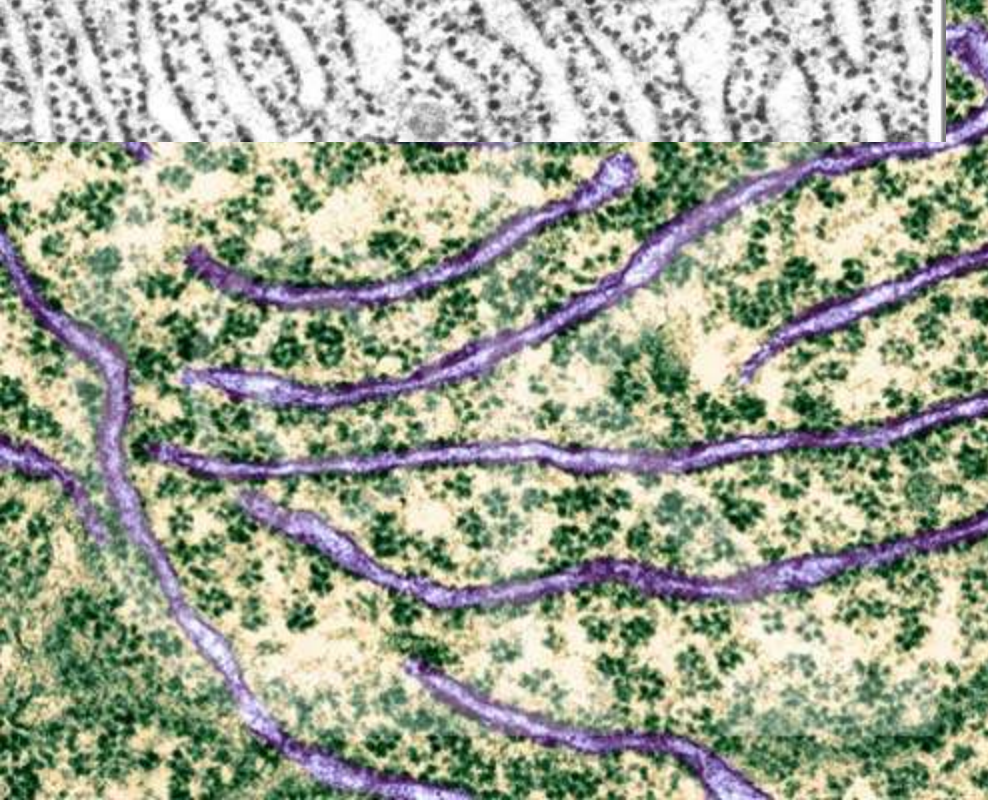
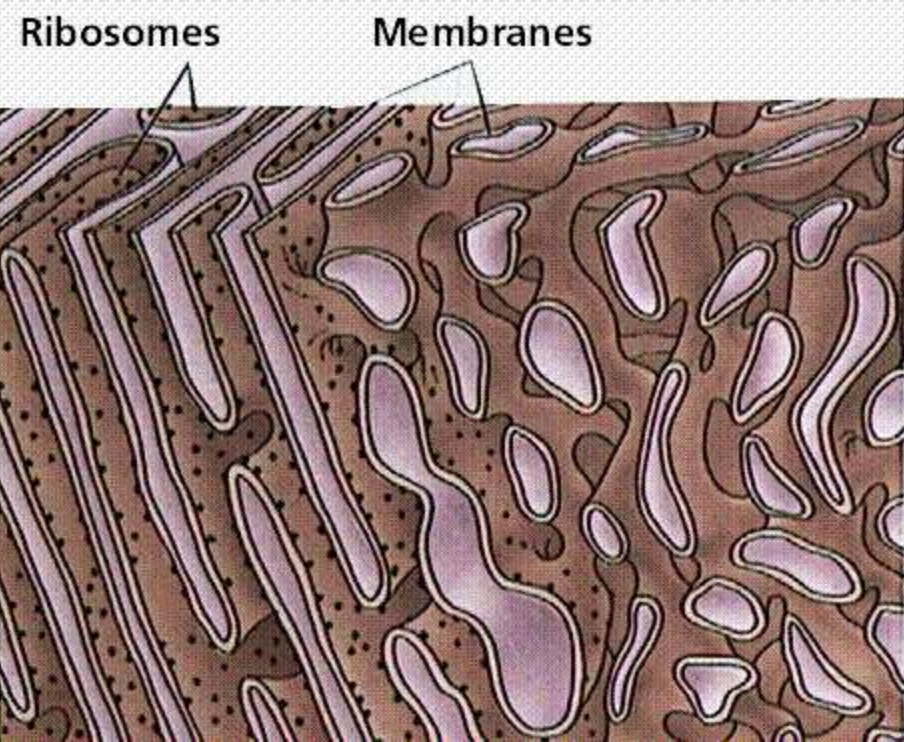
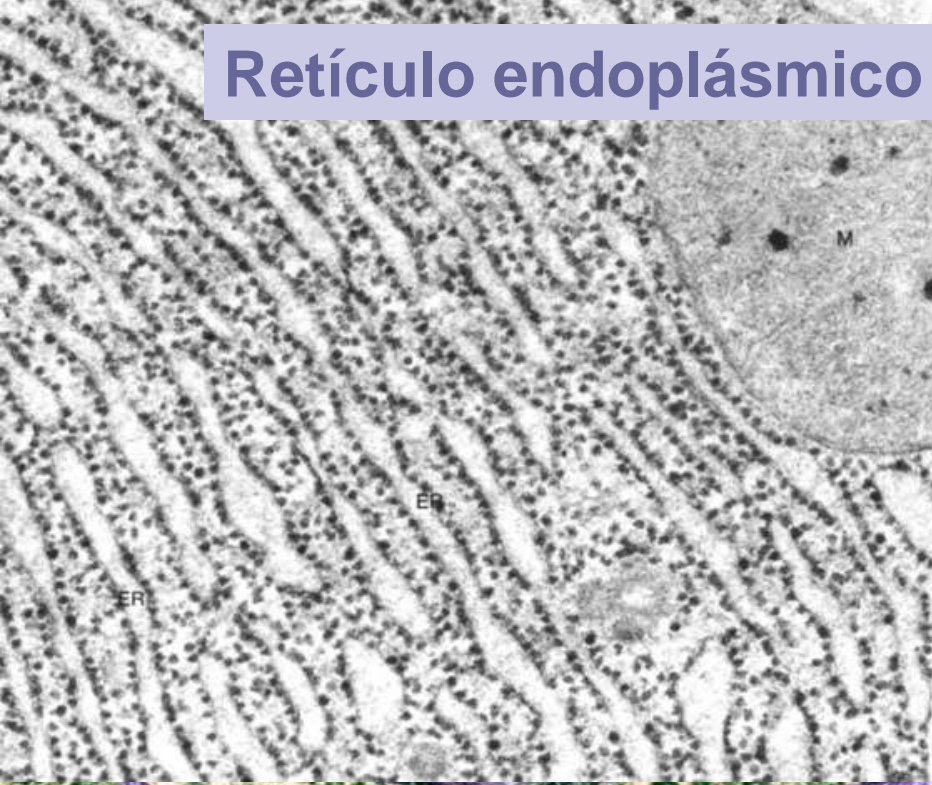


Ribosomas

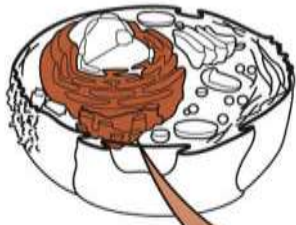
Retículo endoplásmico



Retículo endoplásmico



Retículo endoplásmico



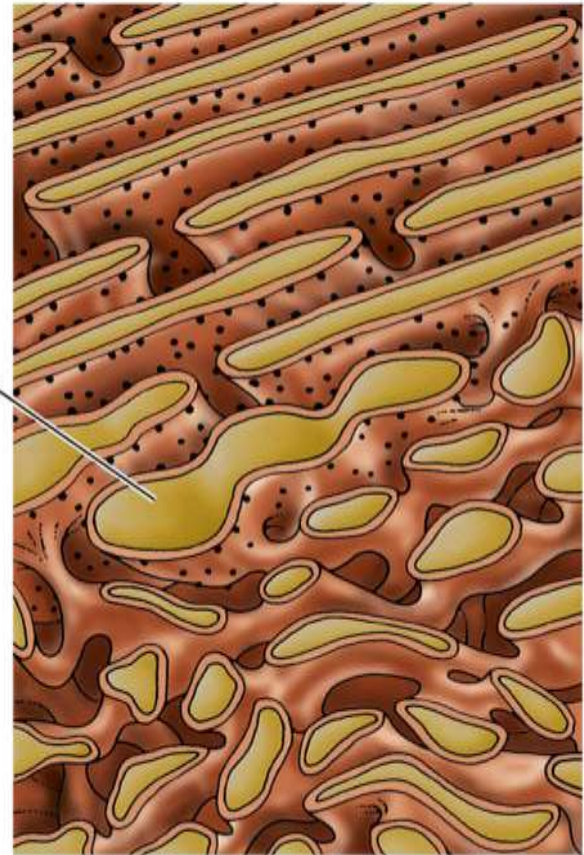
Rough ER

Smooth ER



0.5 μm

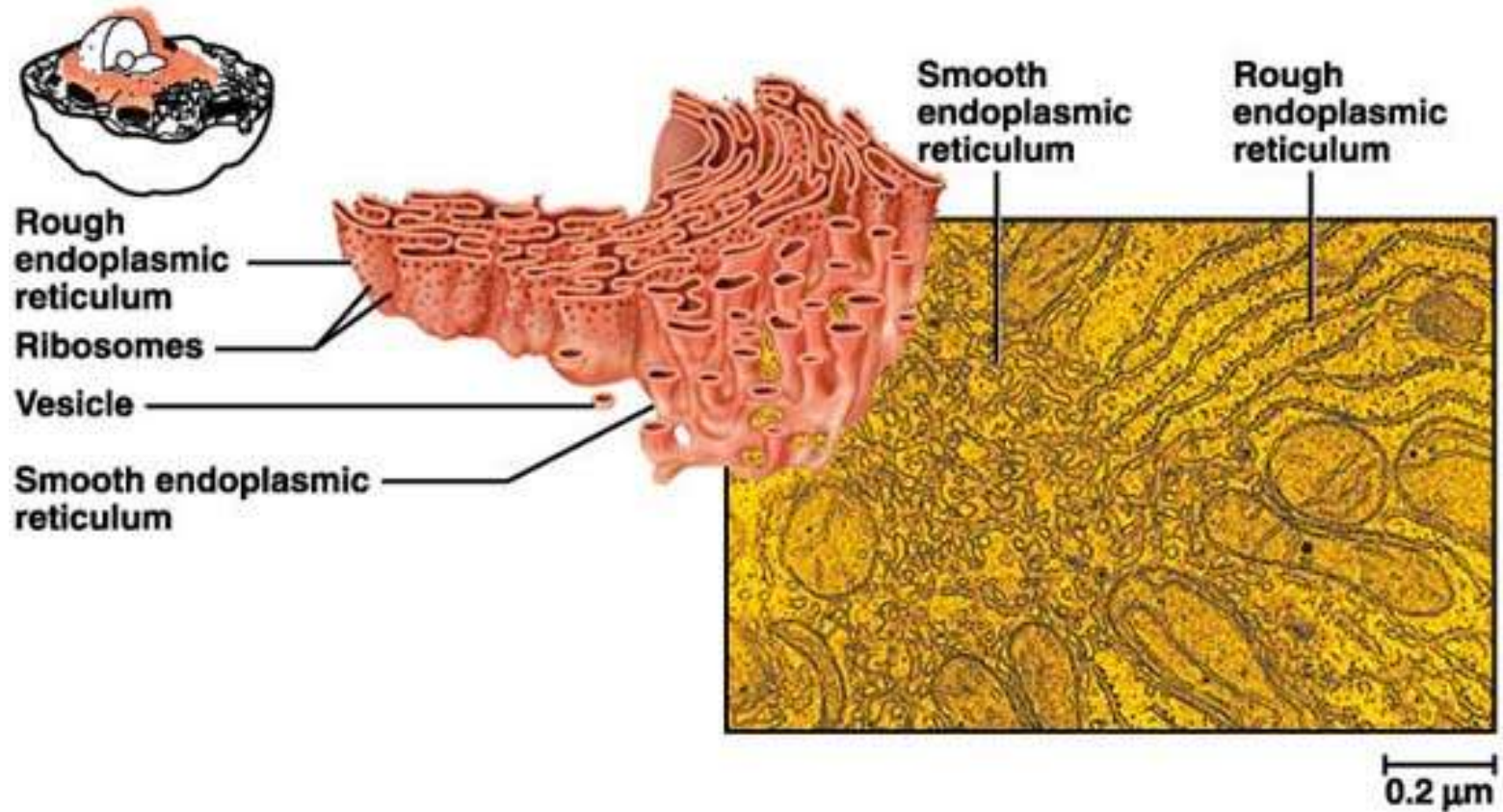
Lumen



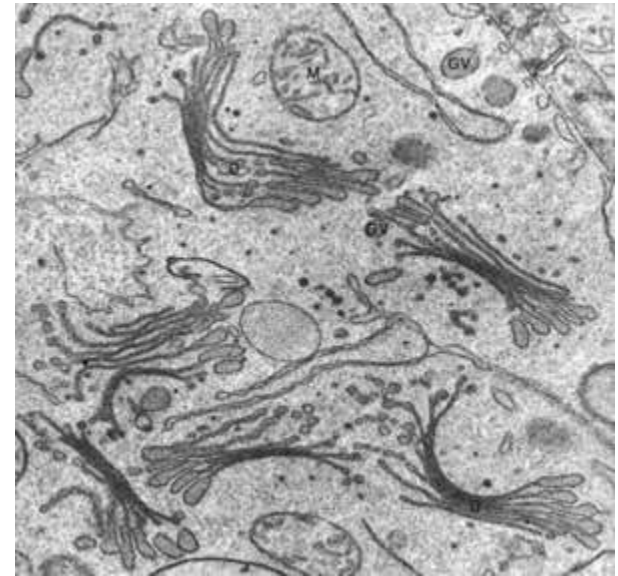
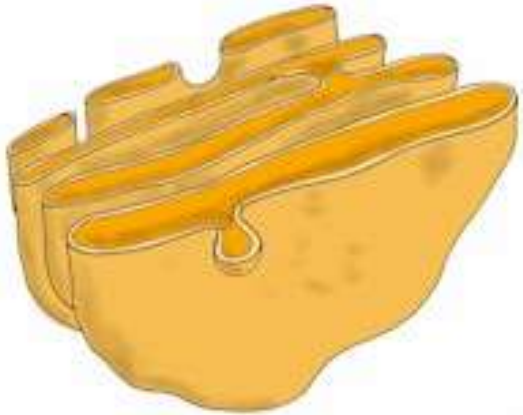
Rough ER

Smooth ER

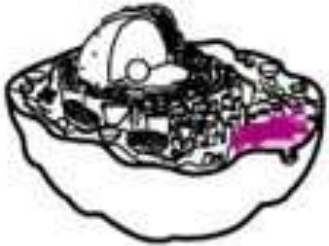
Retículo endoplásmico



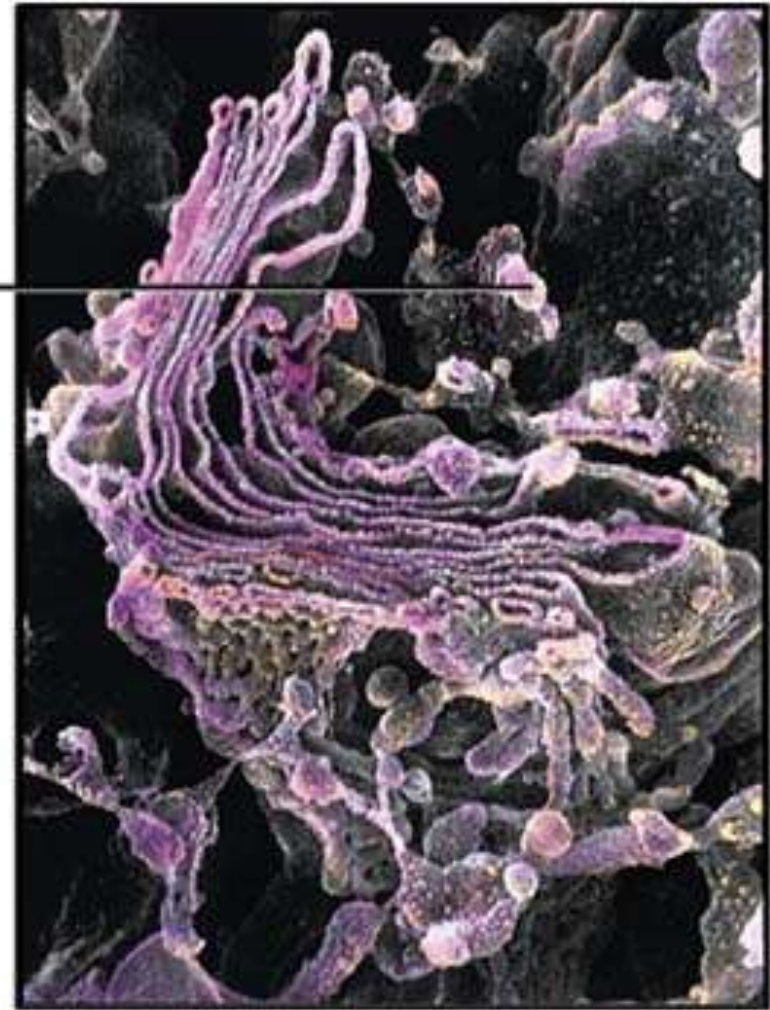
Aparato de Golgi



The Golgi apparatus

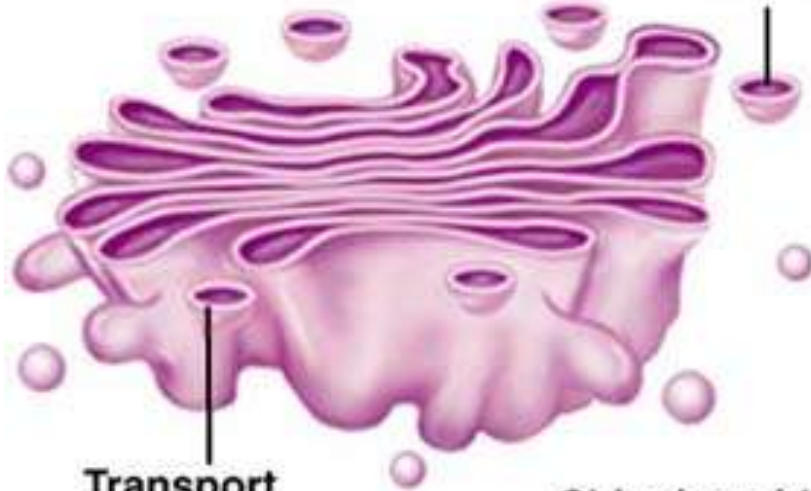


Transport vesicle



Receiving side

Transport vesicle entering

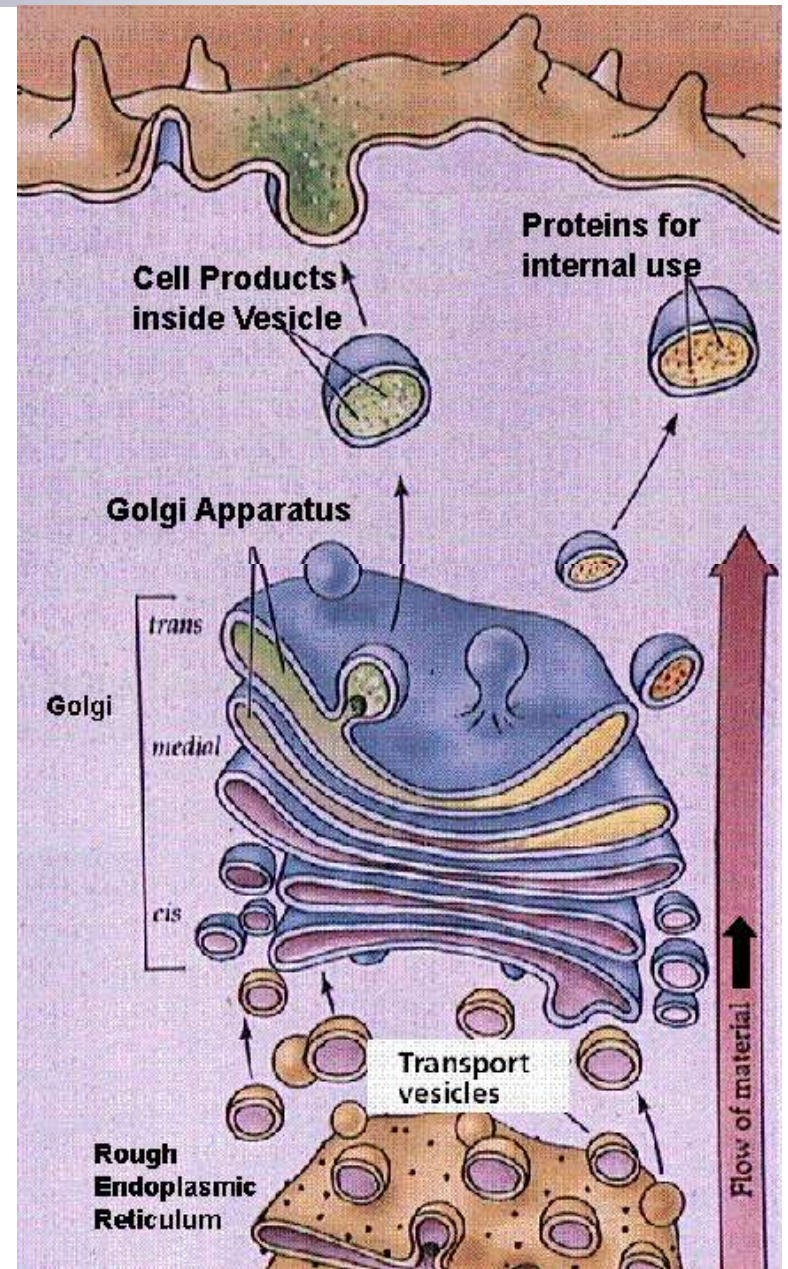
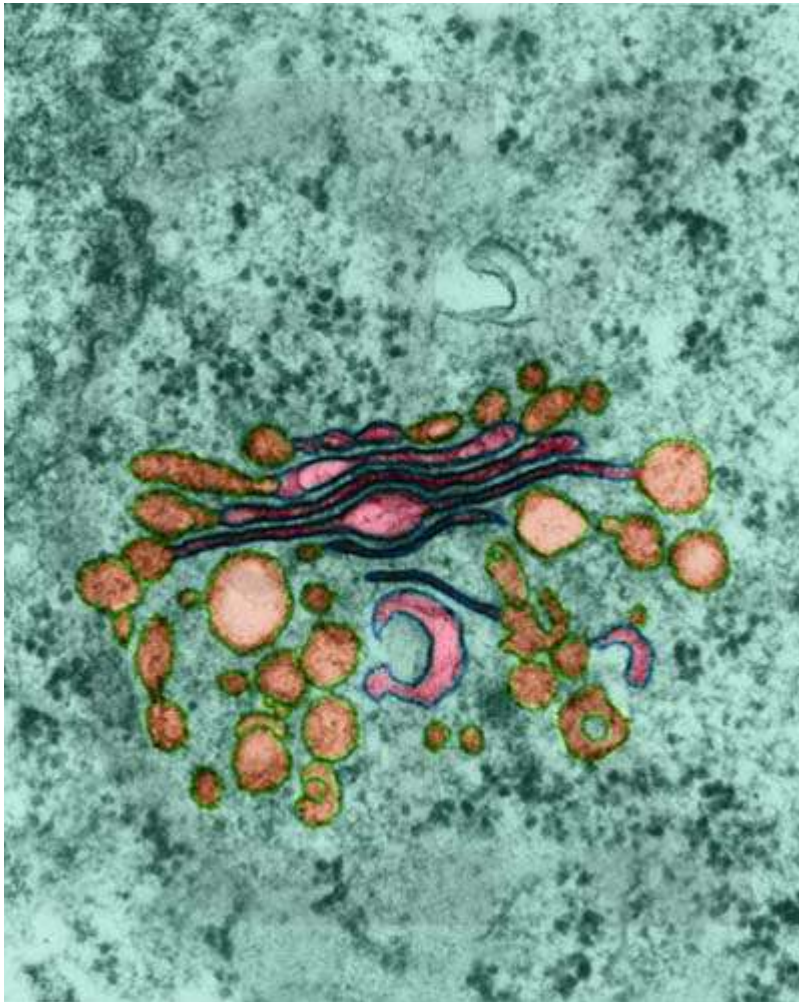


Transport vesicle leaving

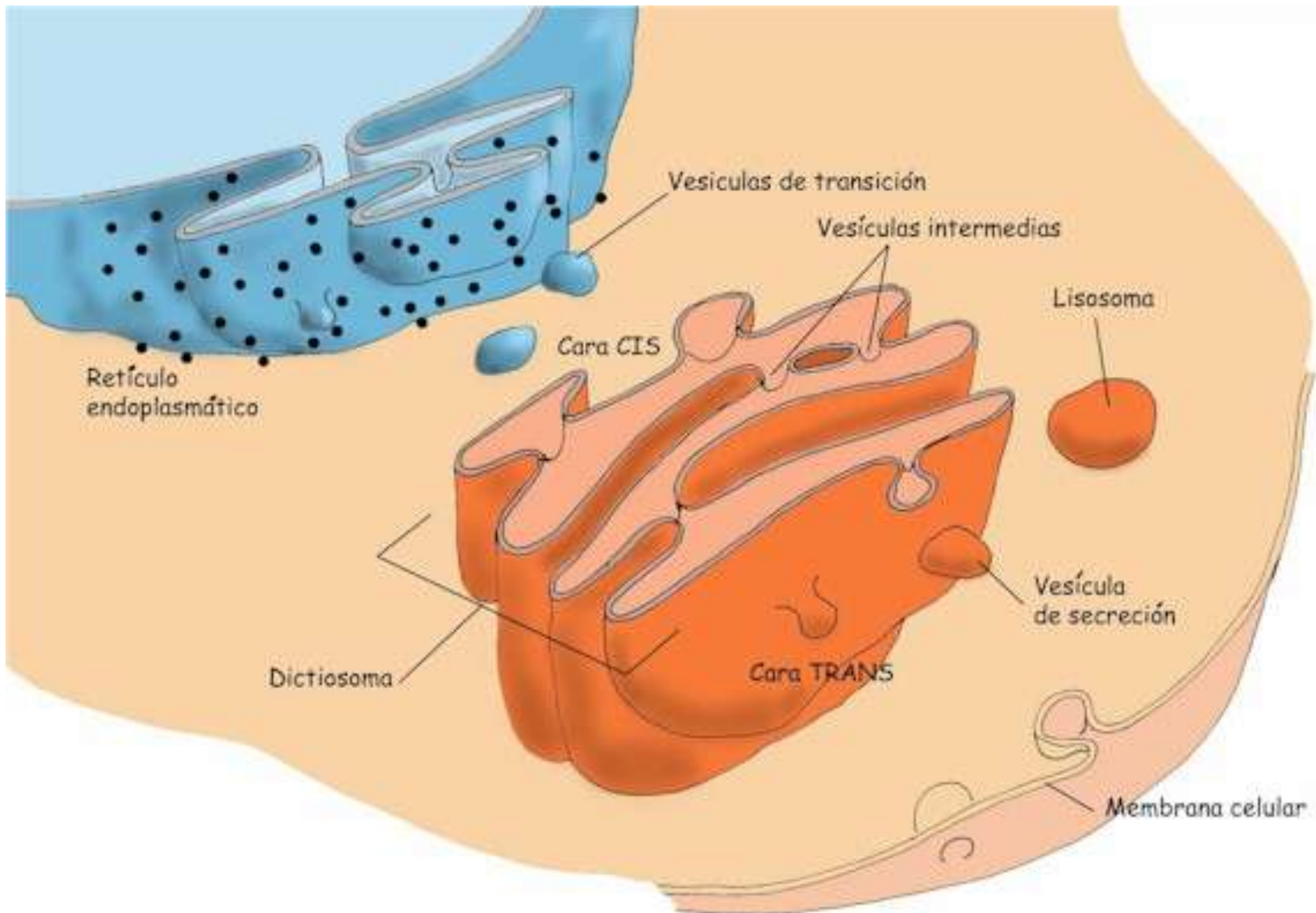
Shipping side of Golgi apparatus

0.5 μm

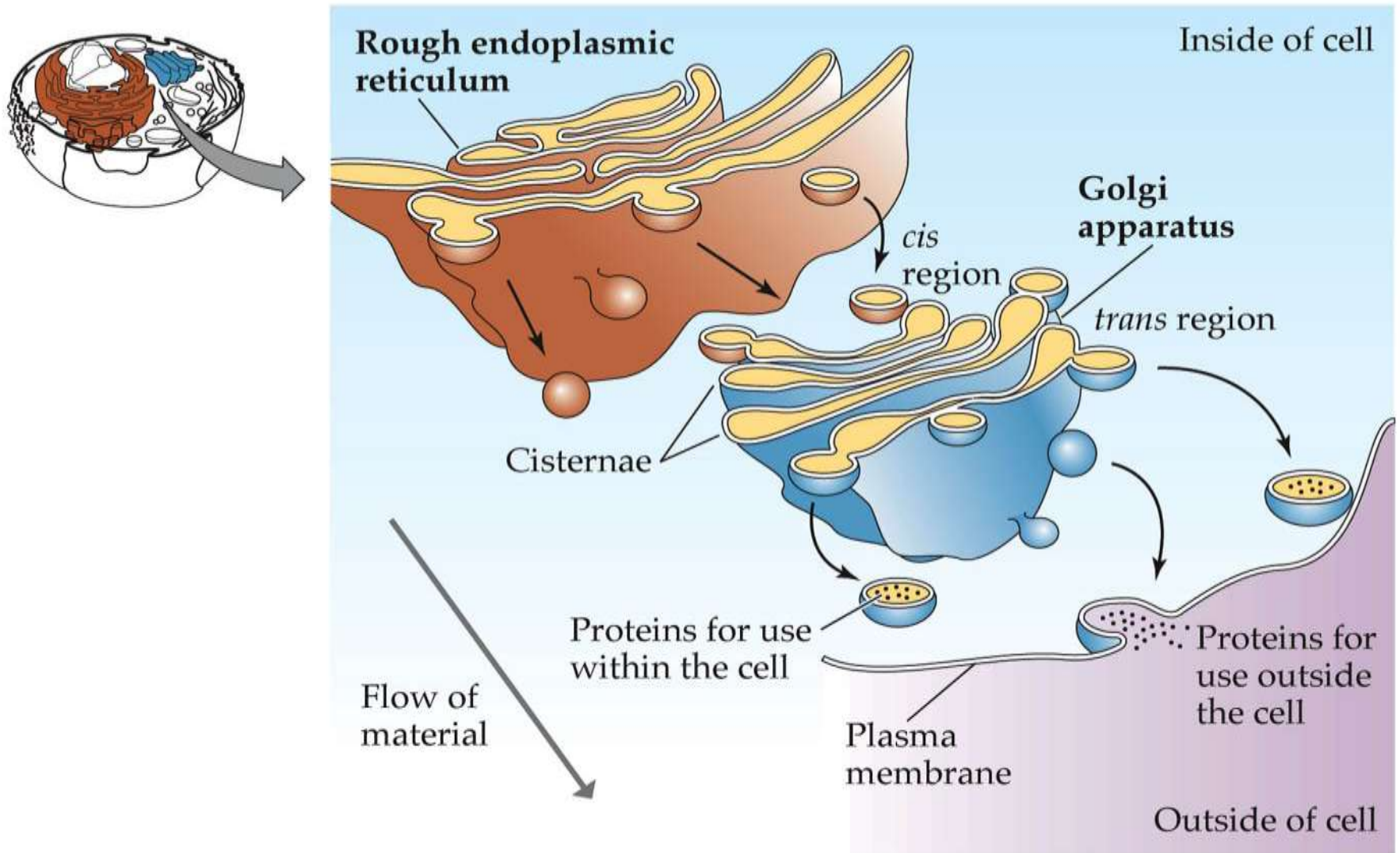
Aparato de Golgi



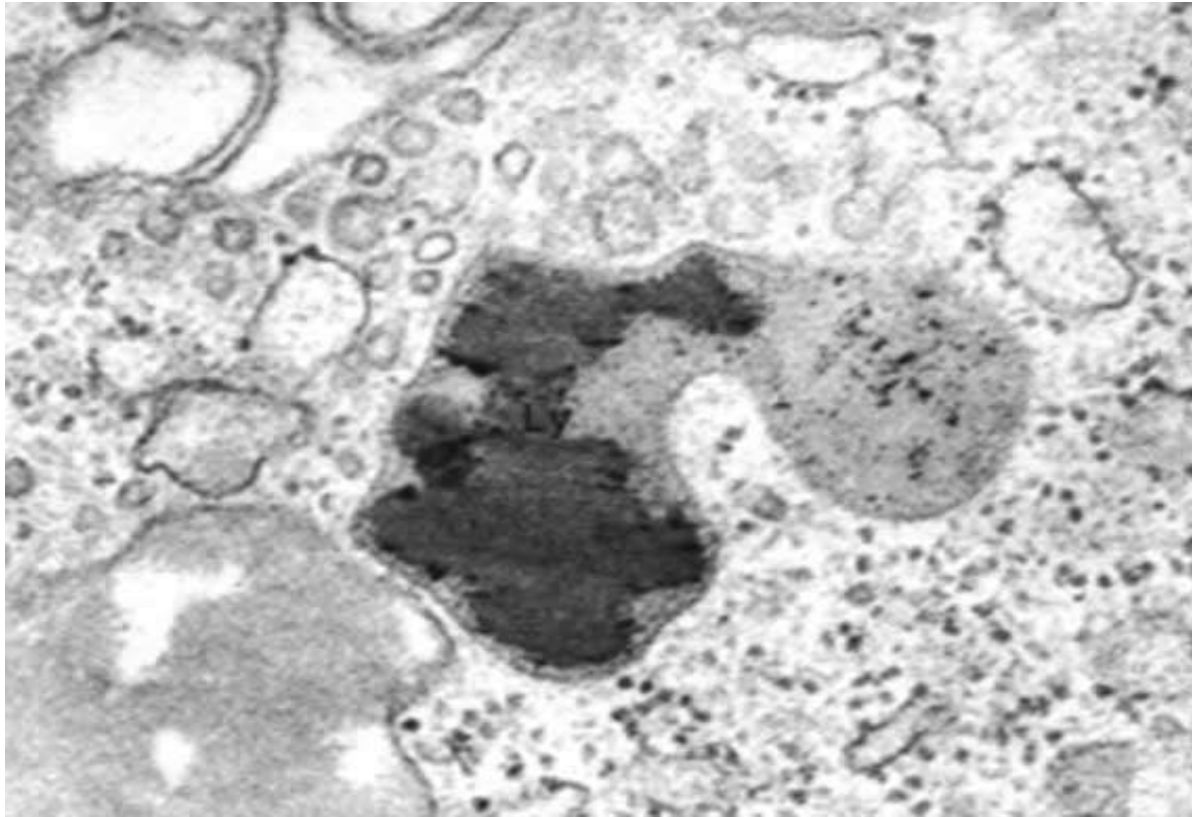
Retículo y aparato de Golgi



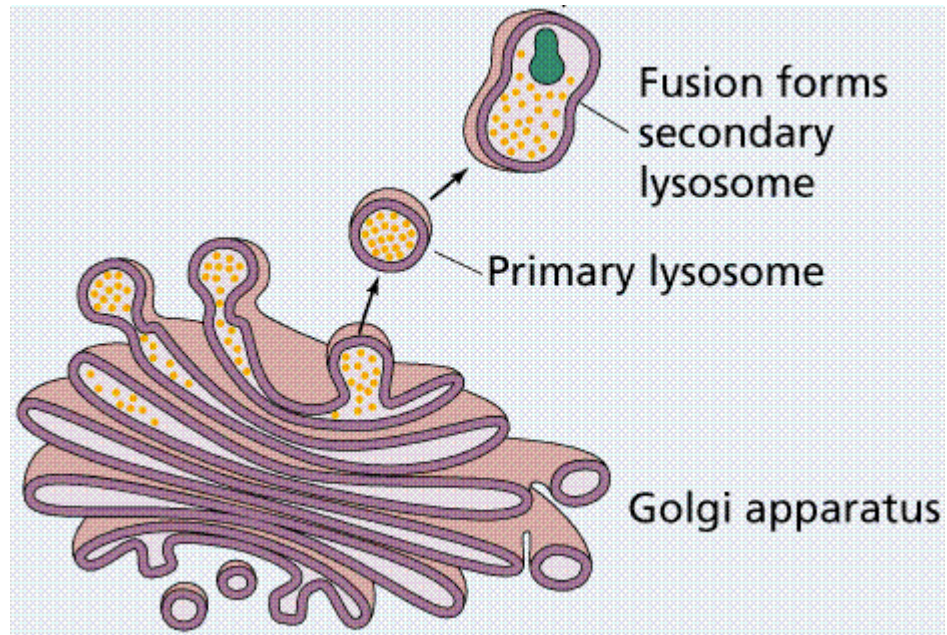
Retículo y aparato de Golgi

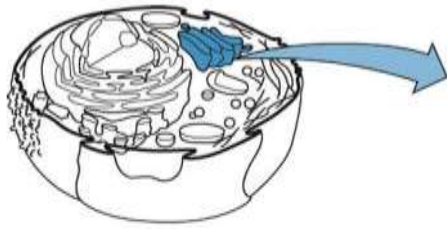


Lisosomas

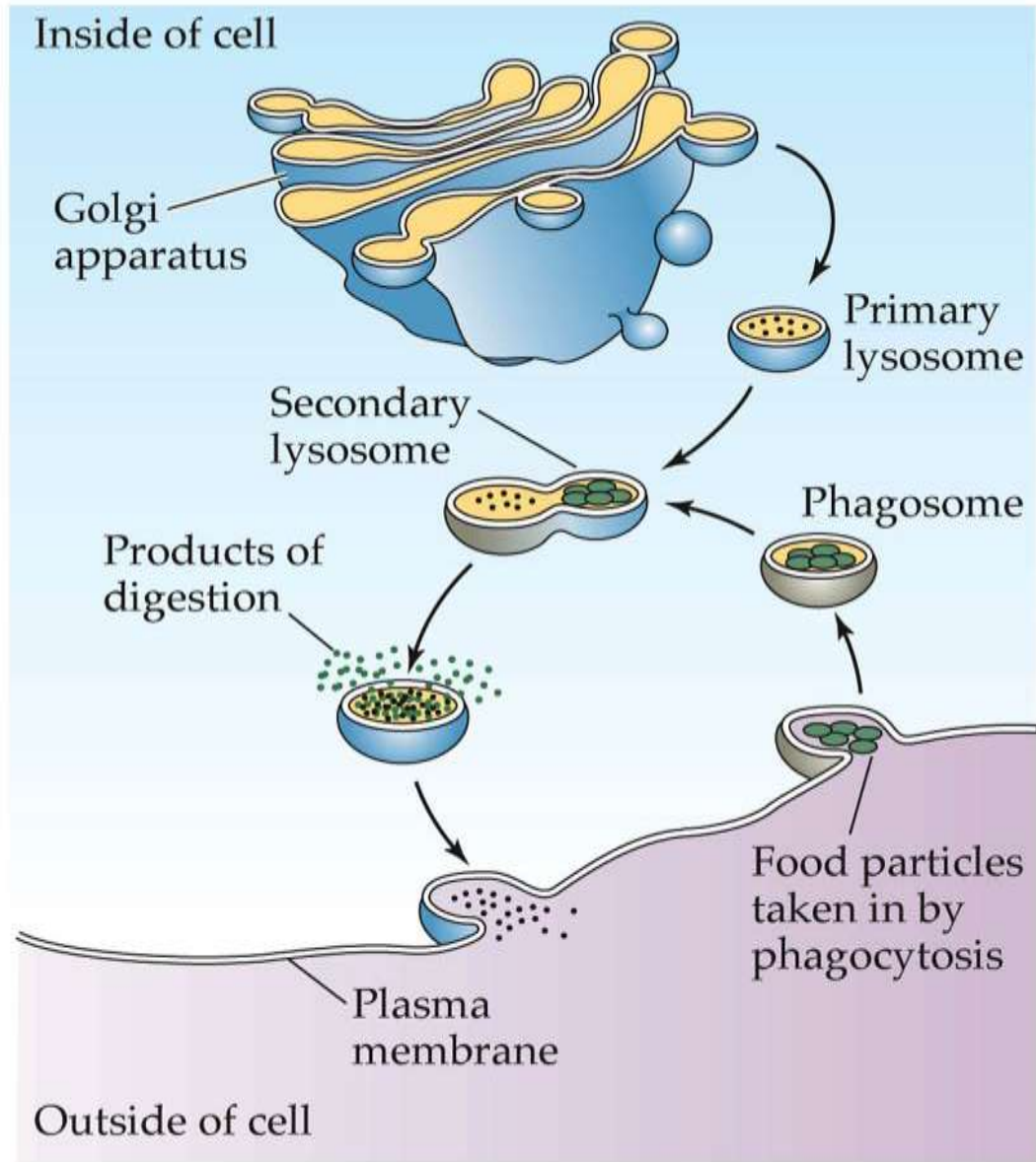


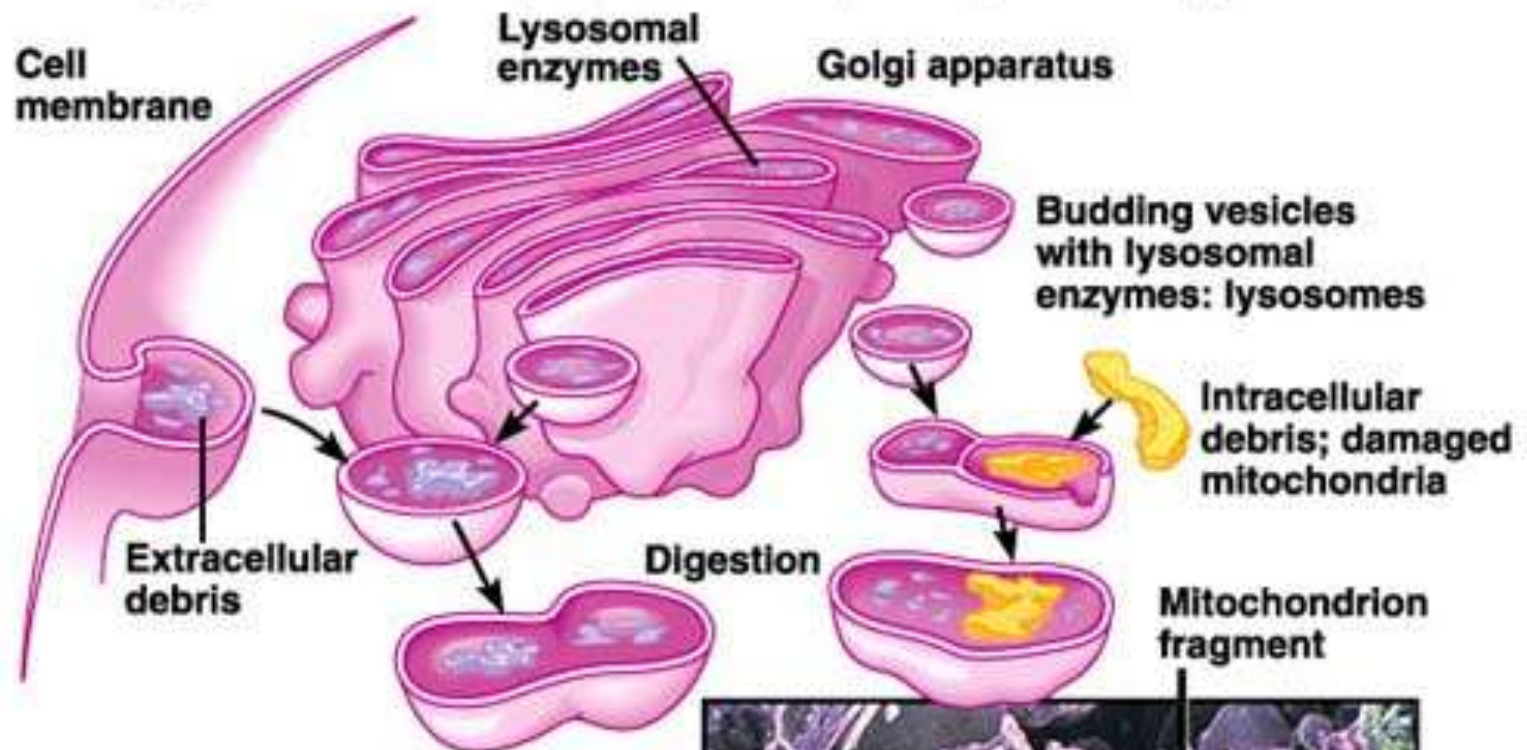
Lisosomas





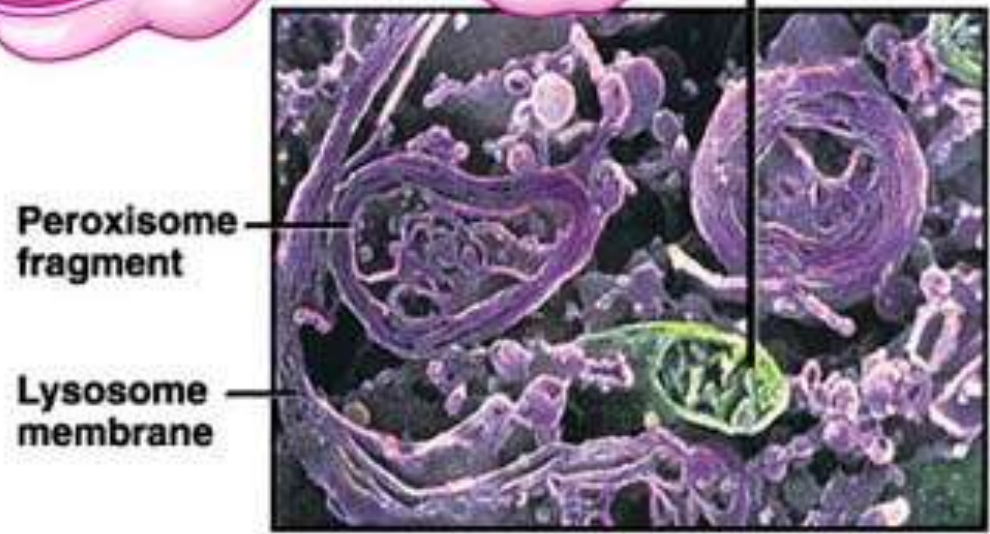
Lisosomas





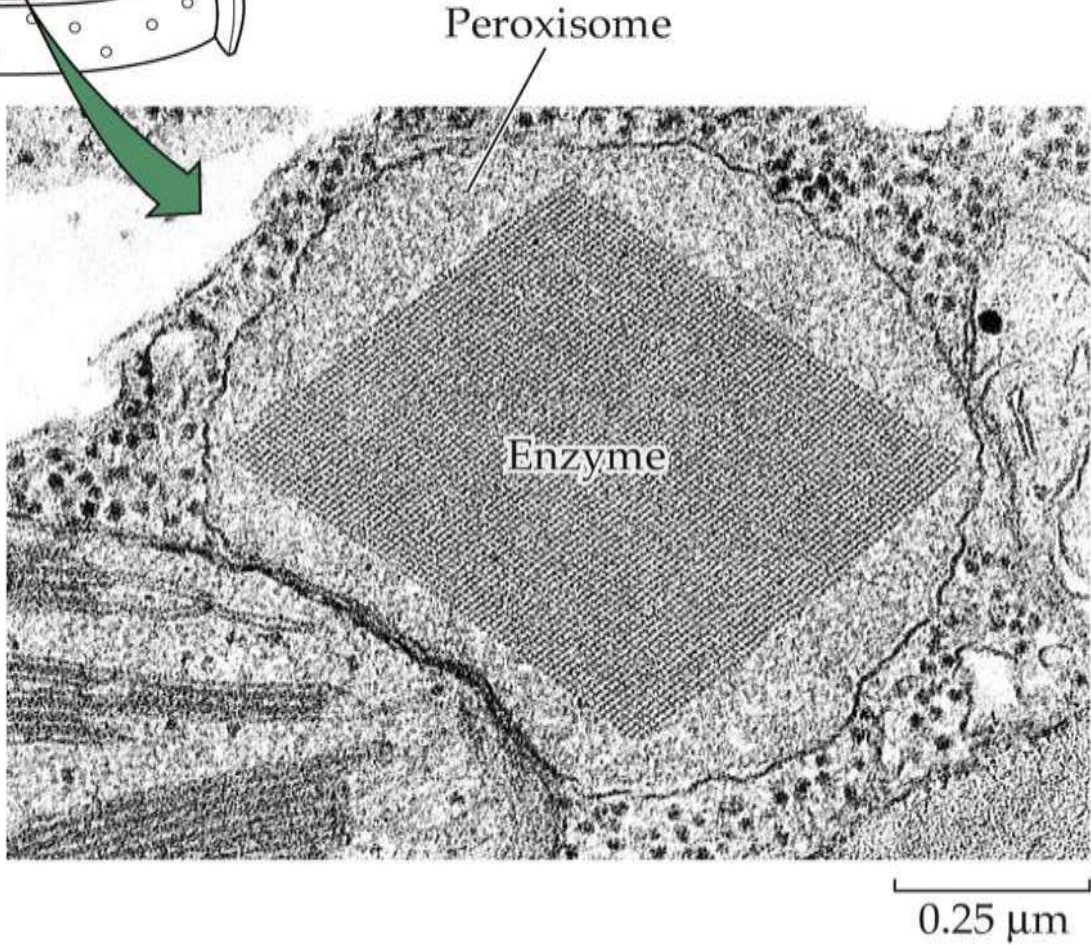
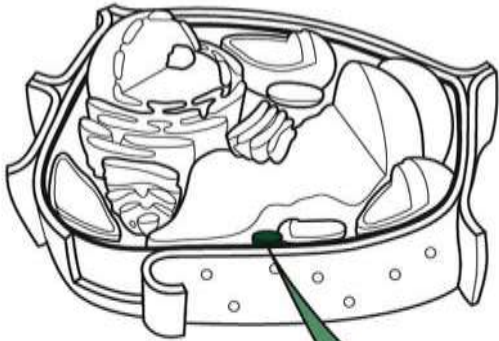
Lisosomas

Function of lysosomes

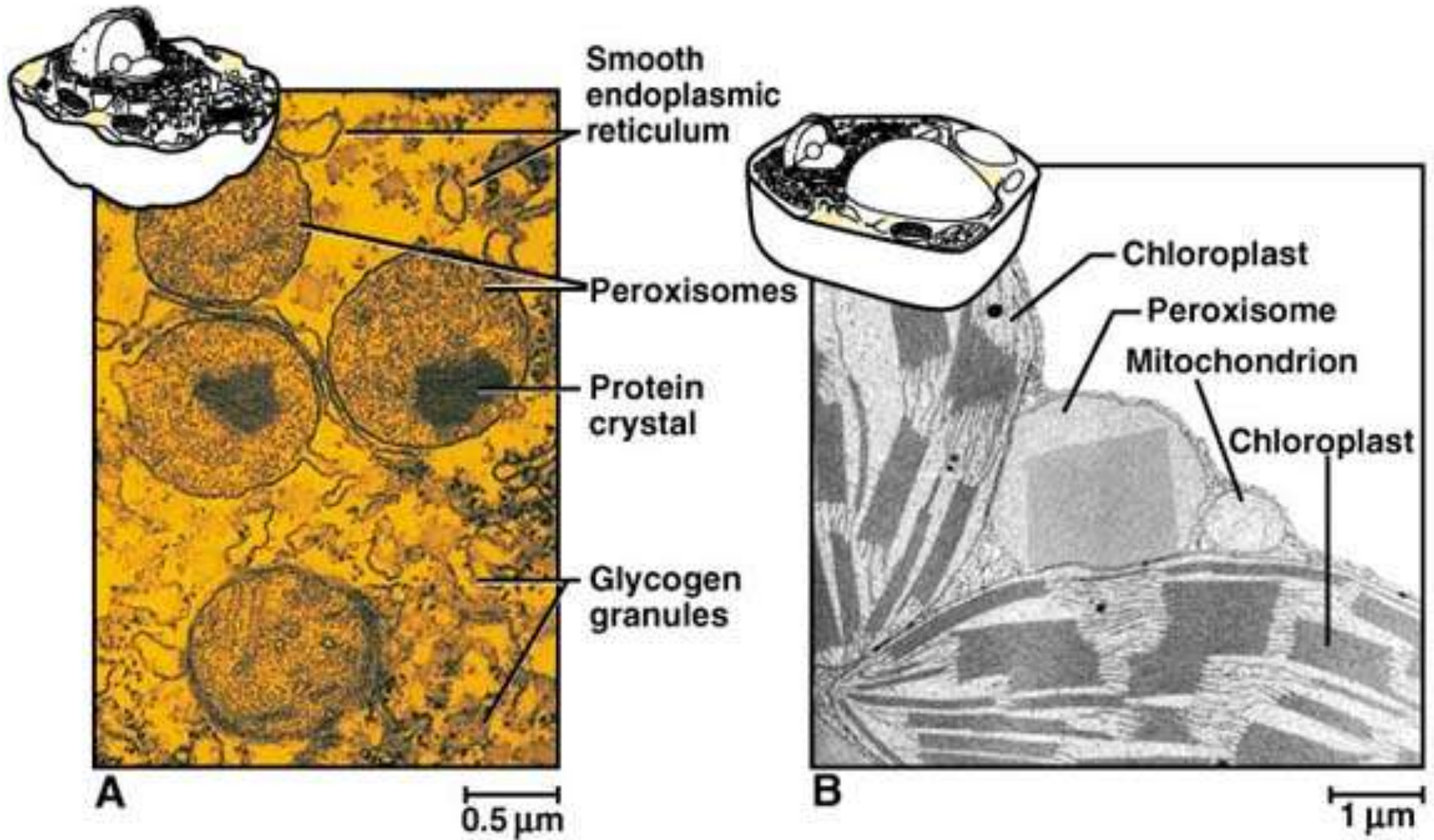


0.7 μm

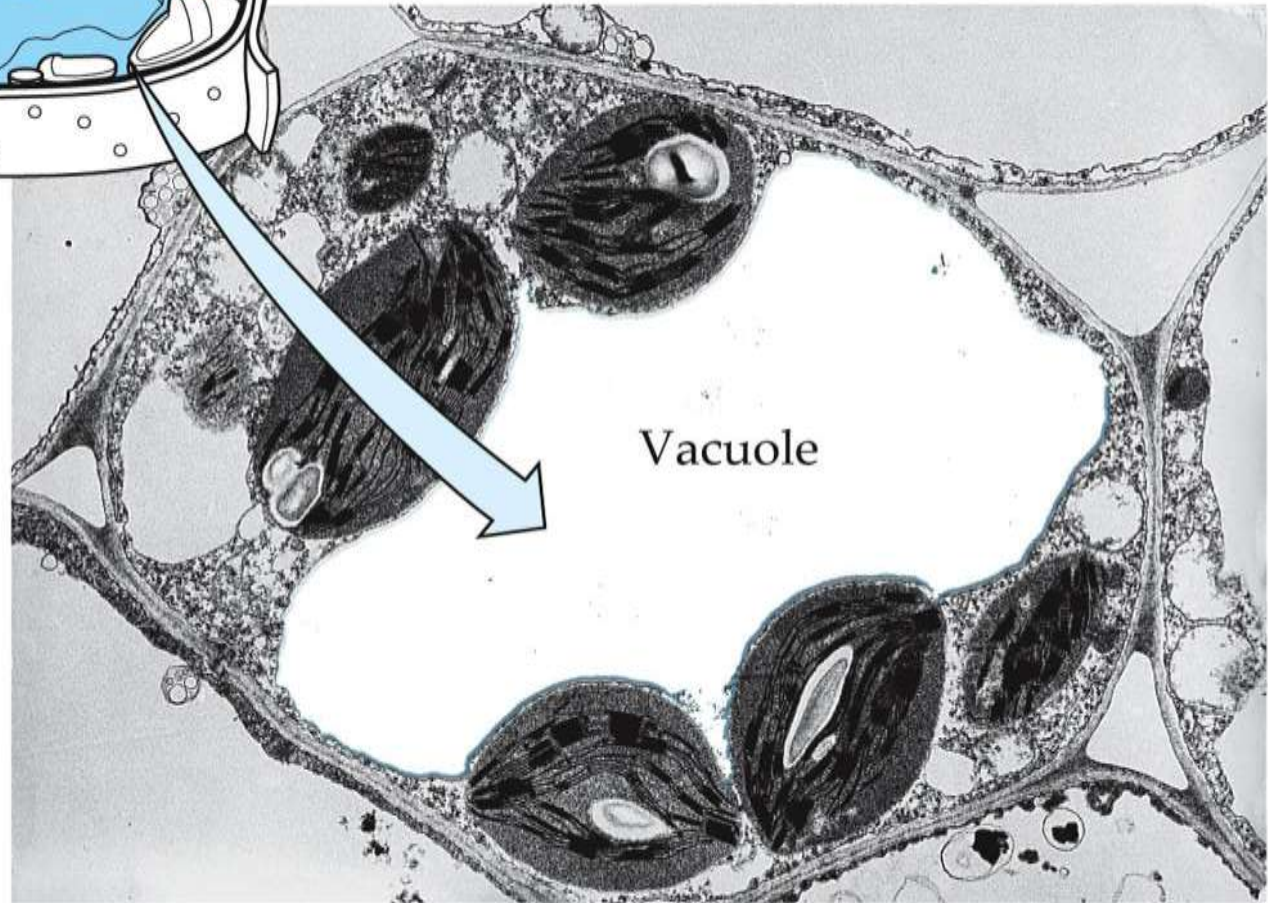
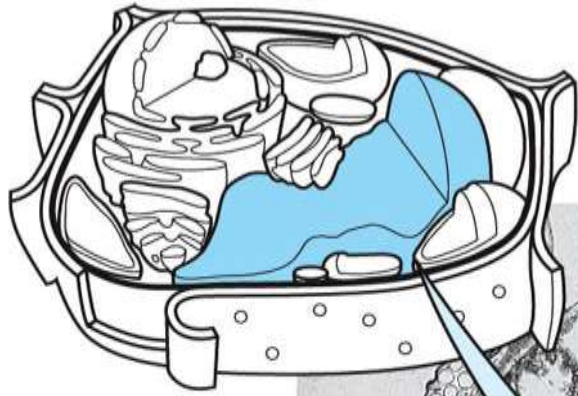
Peroxisomas



Peroxisomas

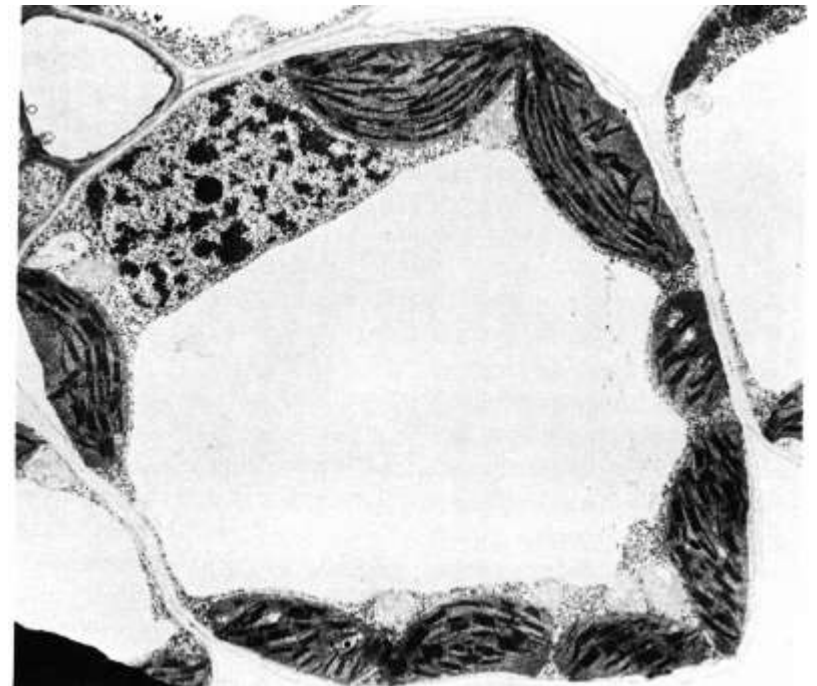
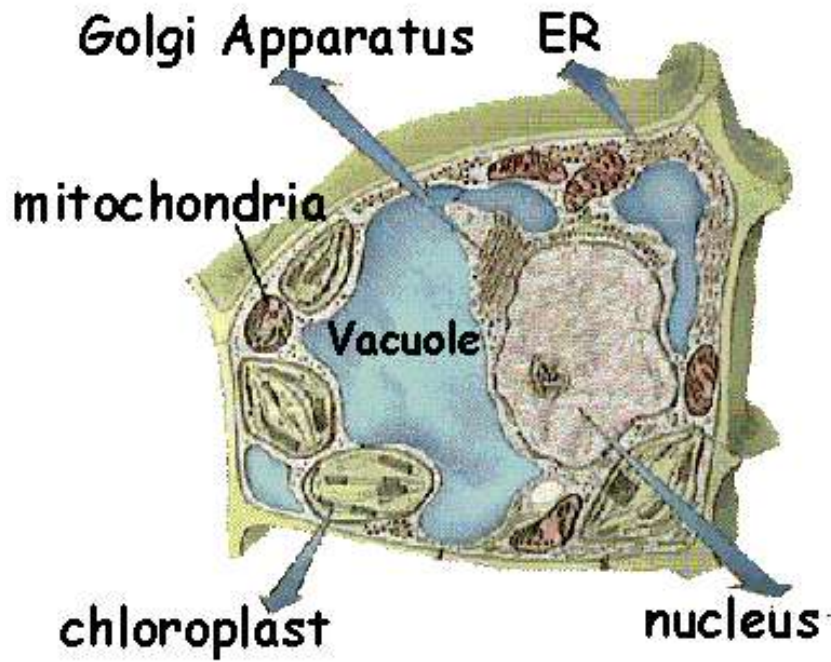
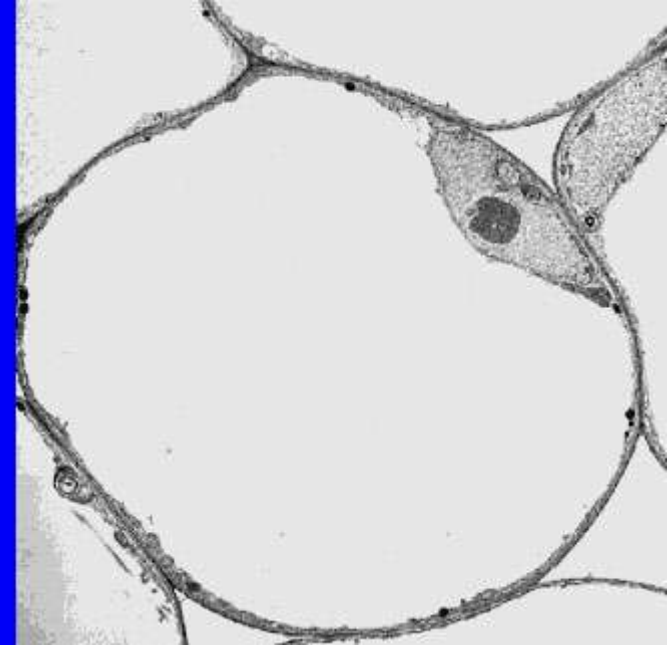
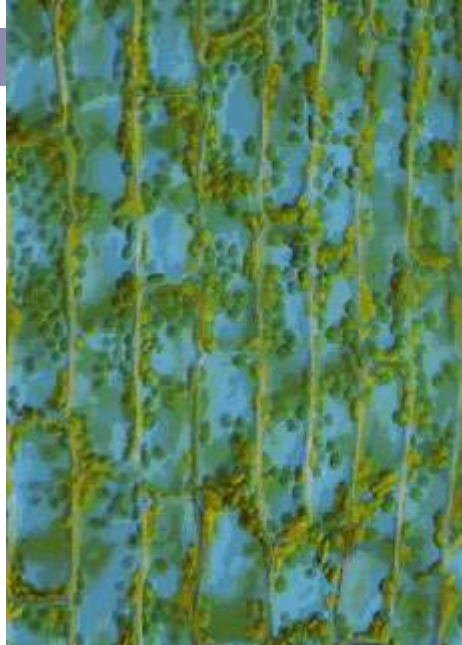
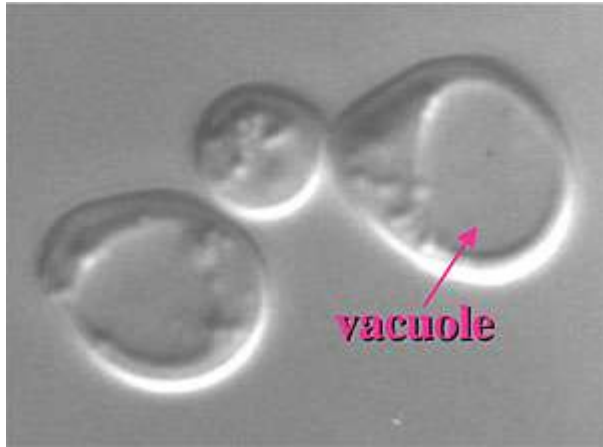


Vacuola

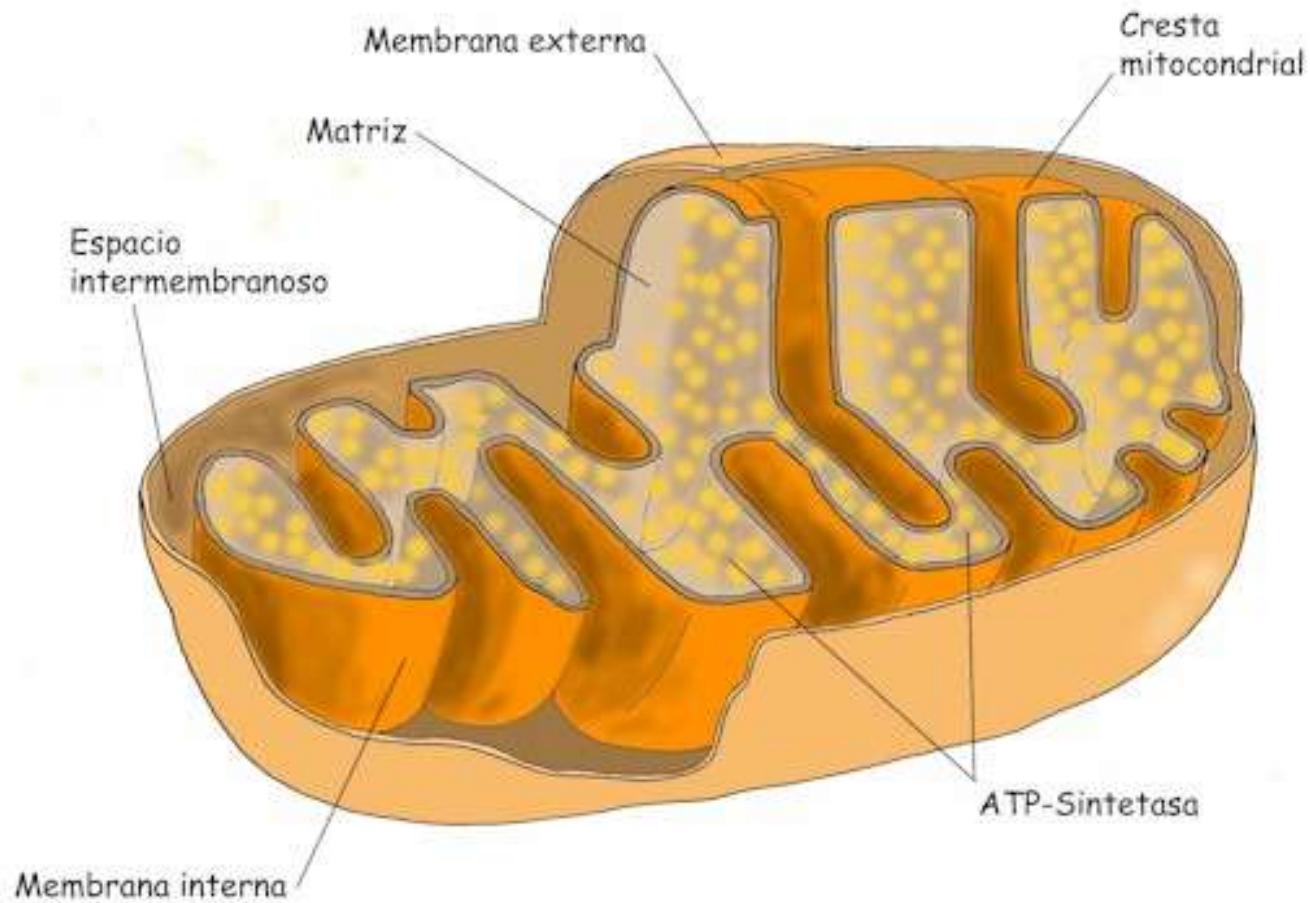


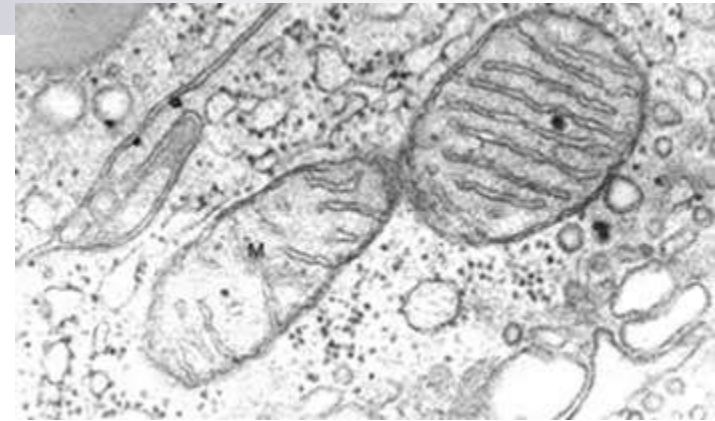
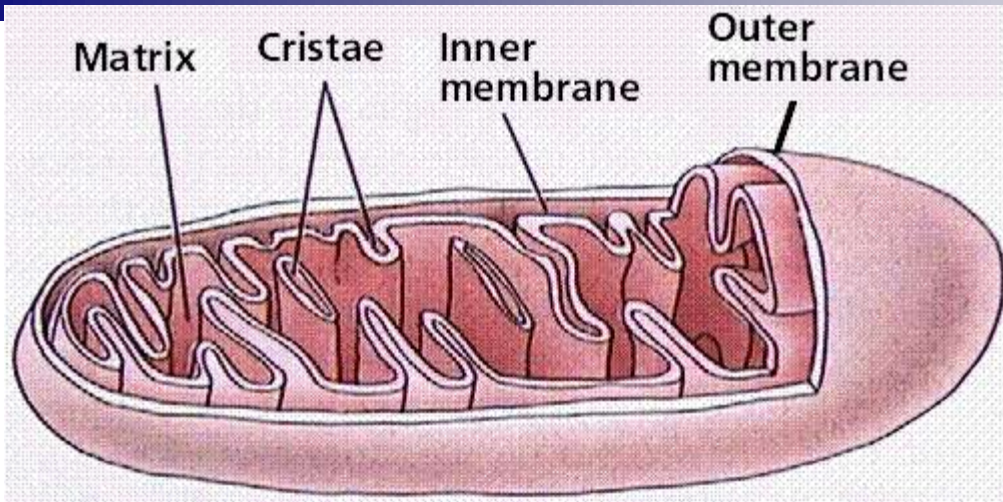
2 μm

Vacuolas



Mitocondria

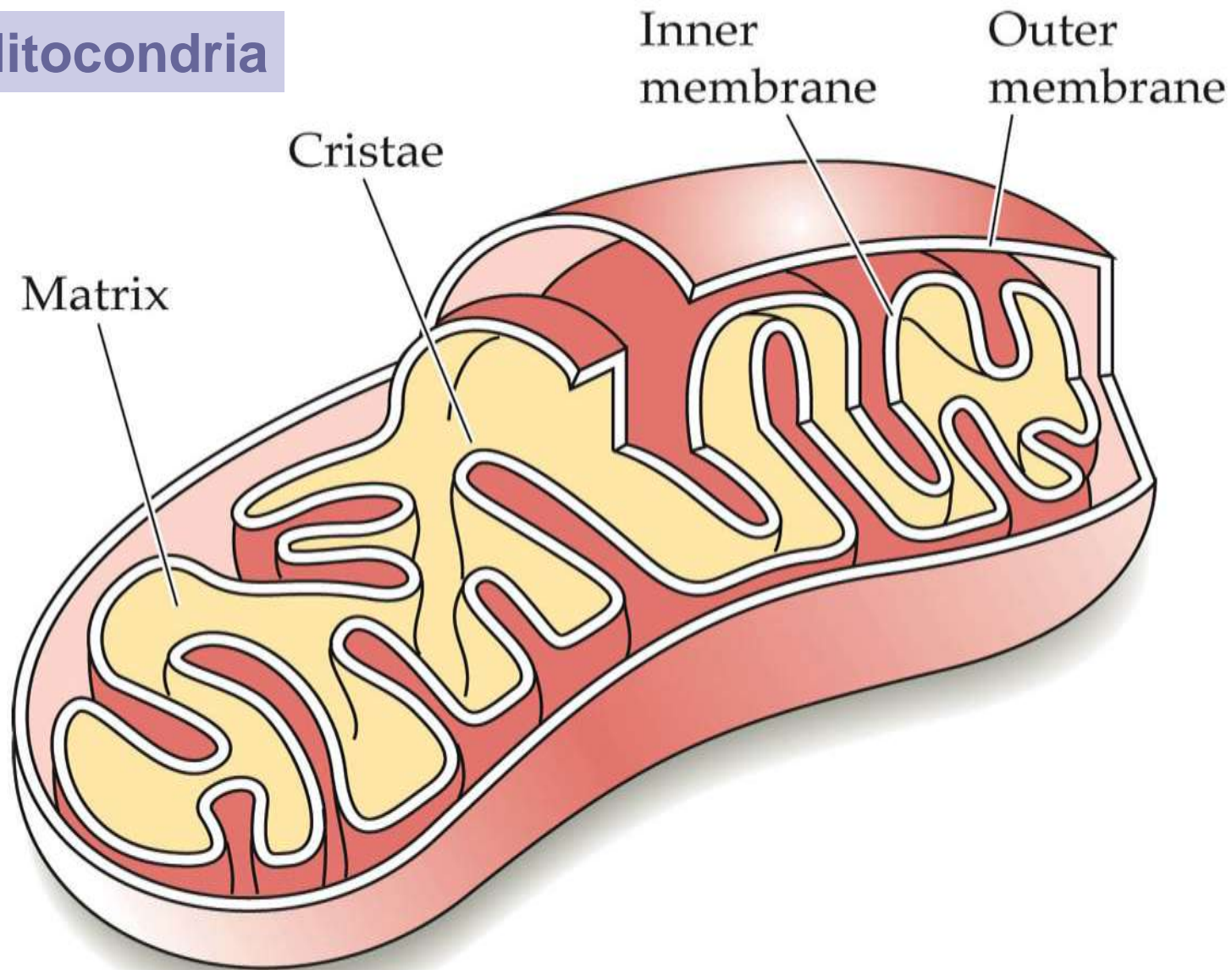




Mitocondria

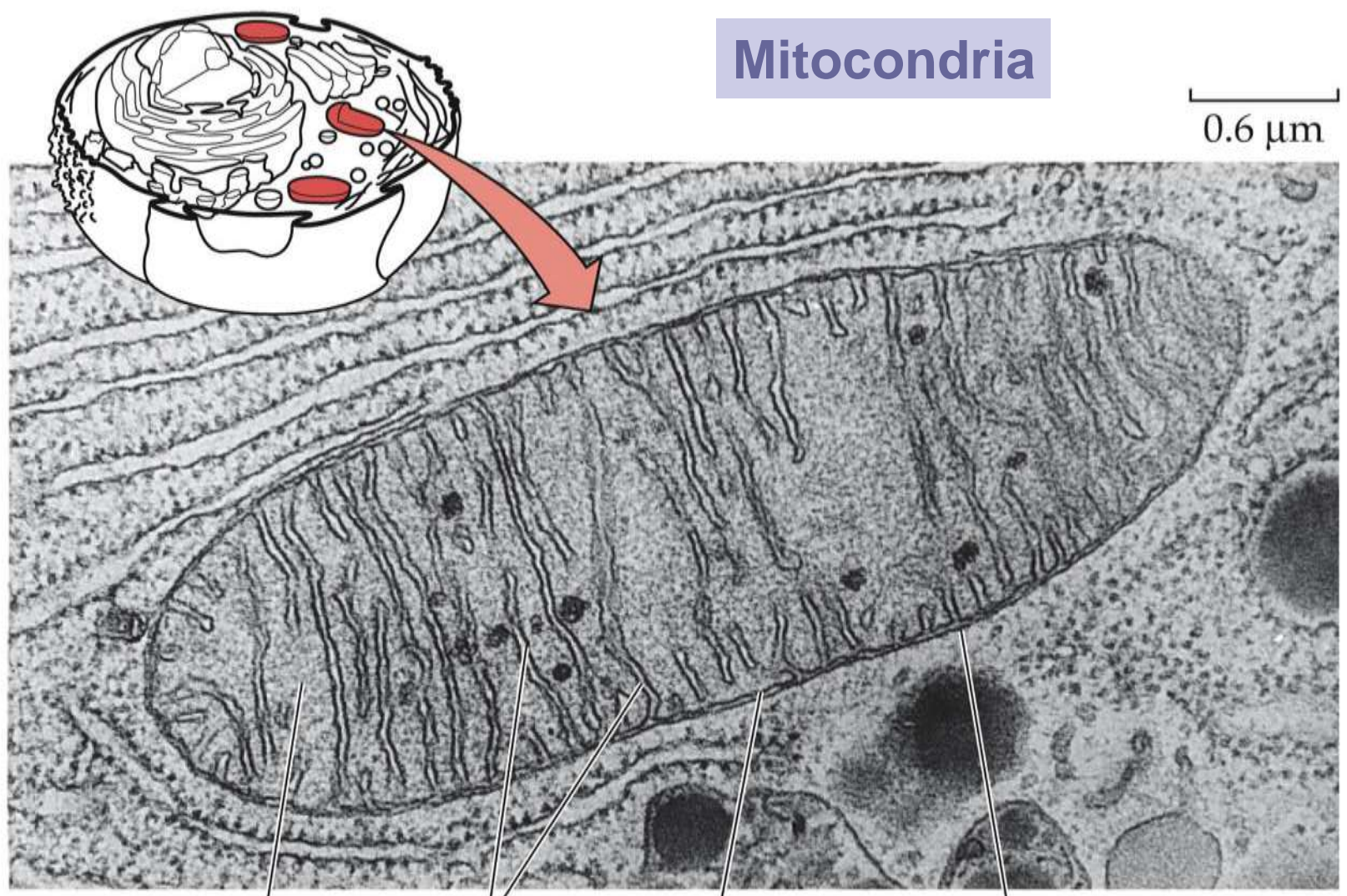


Mitocondria



Mitocondria

0.6 μm



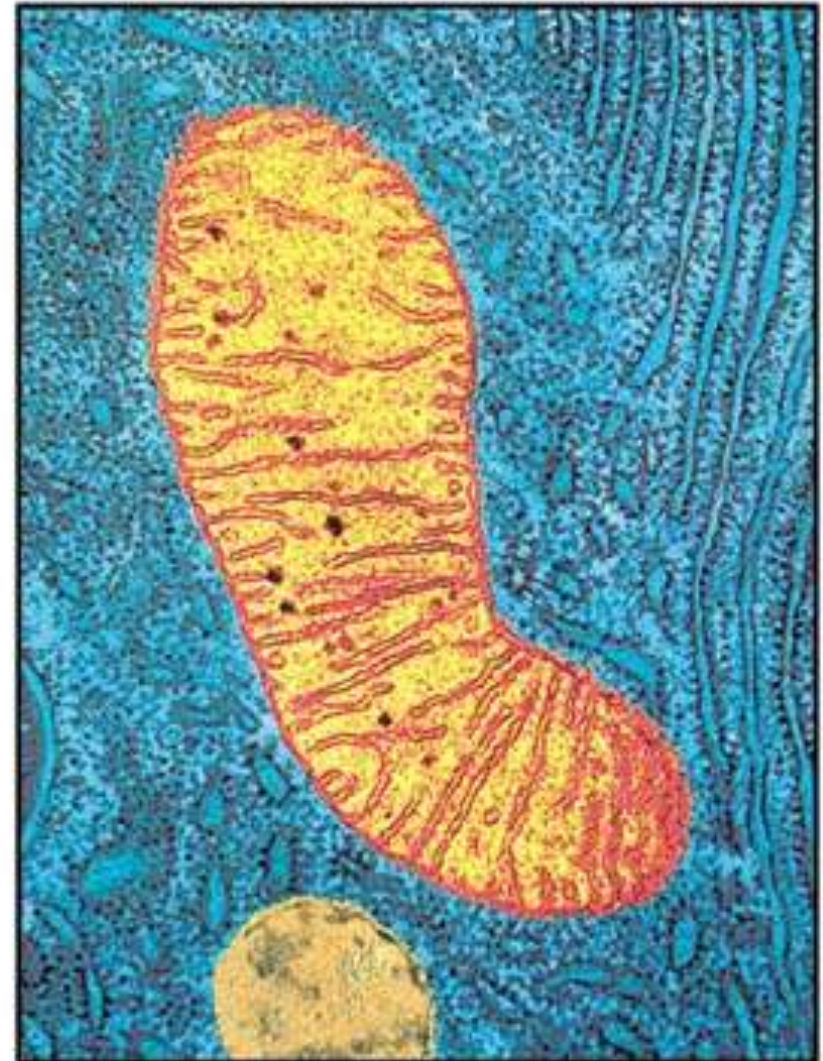
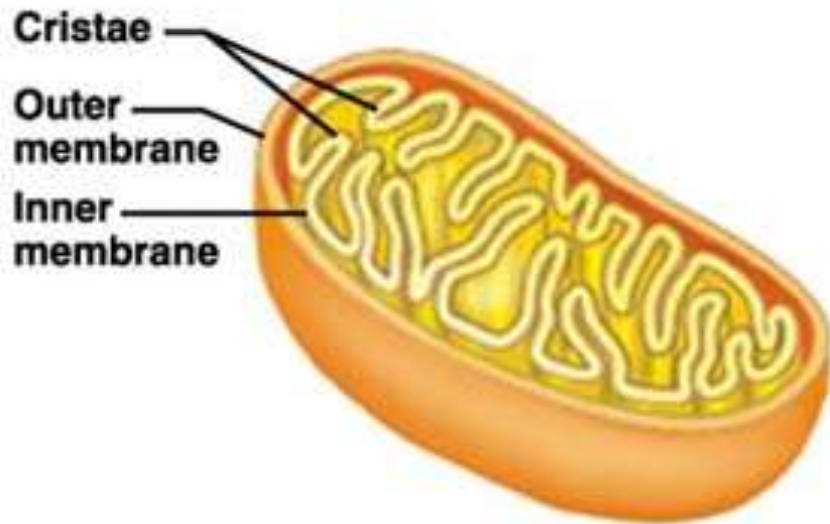
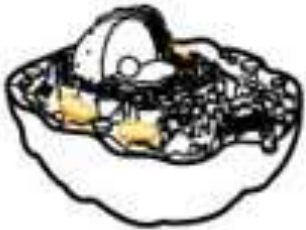
Matrix

Cristae

Inner membrane

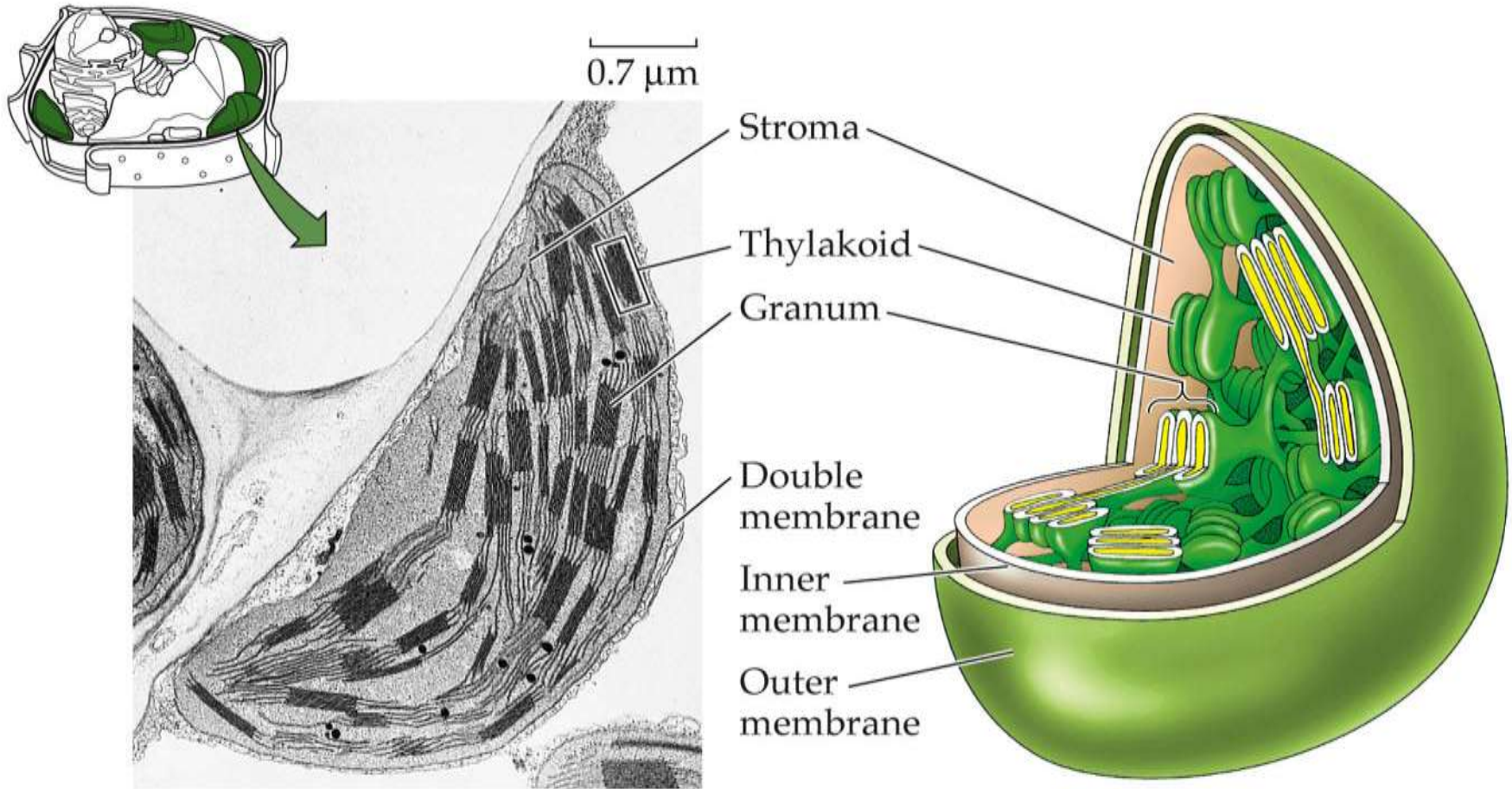
Outer membrane

Mitocondria

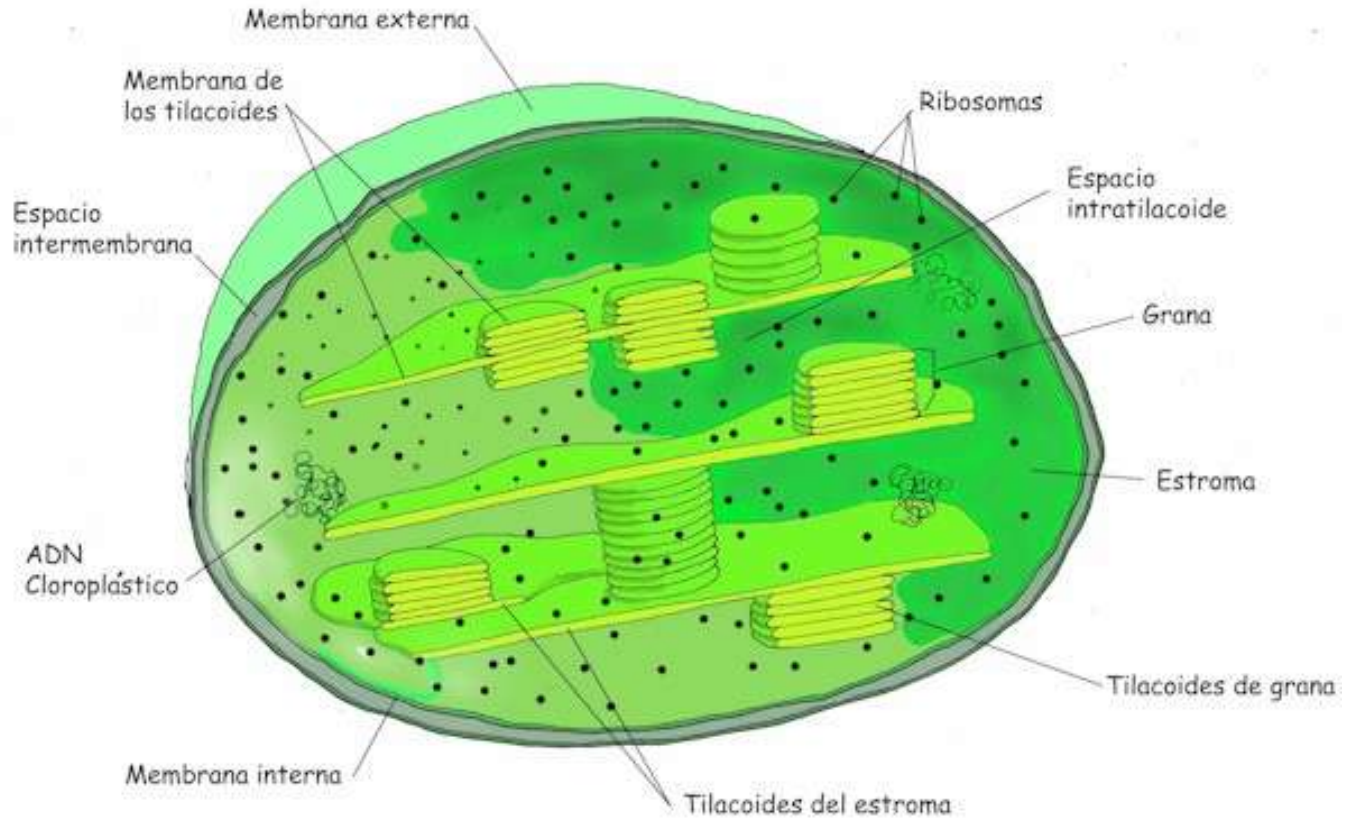


0.5 μm

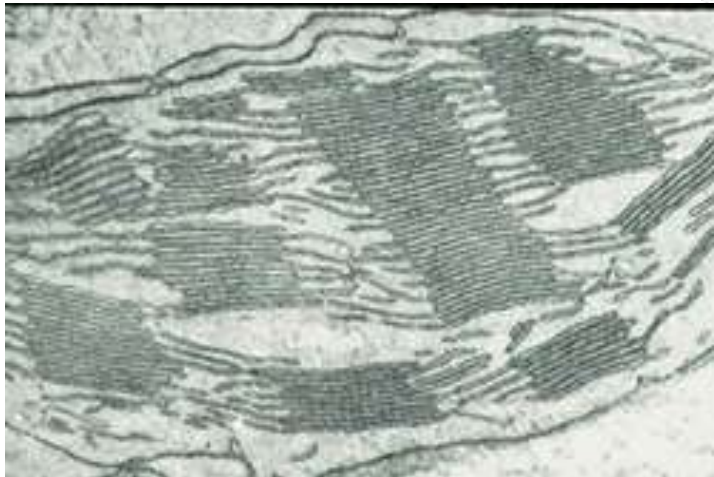
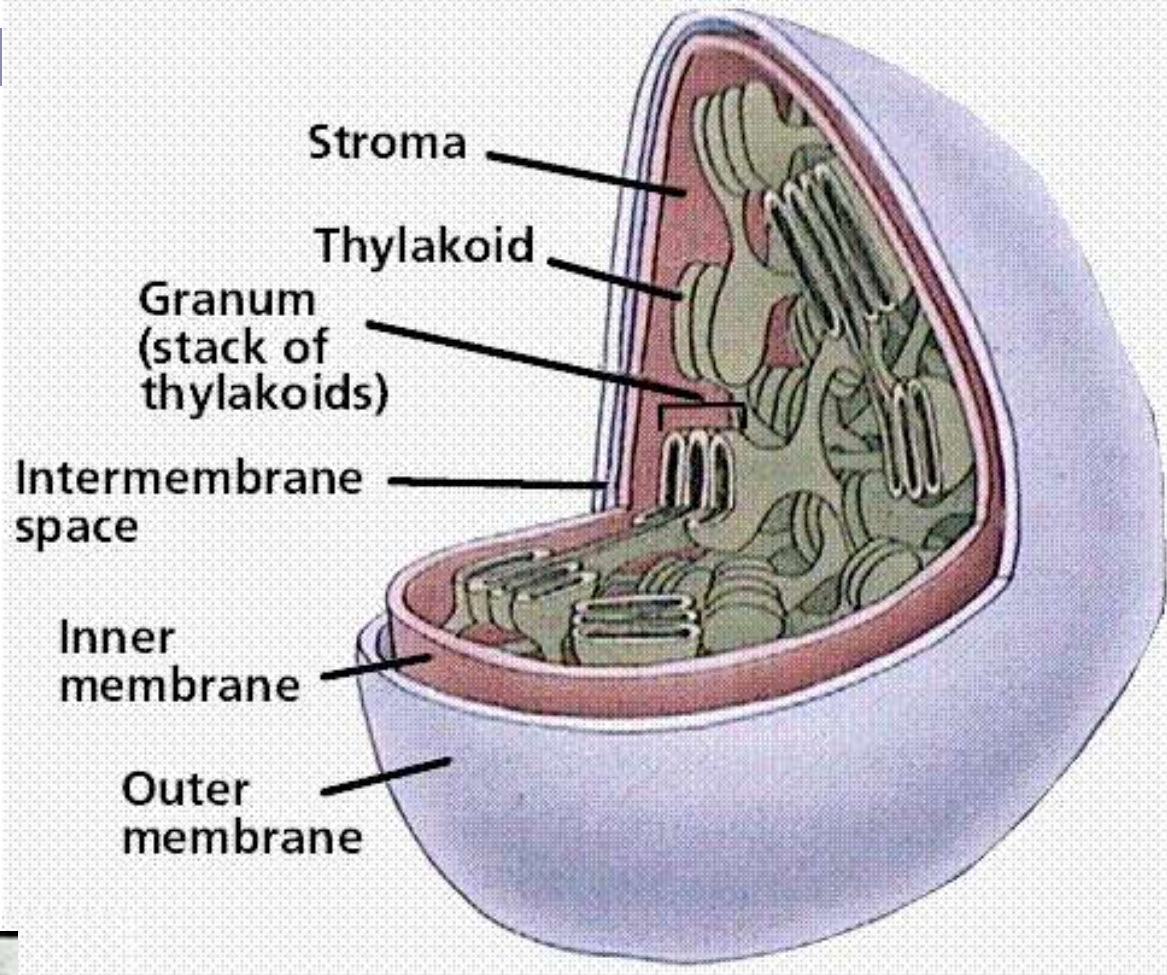
Cloroplastos



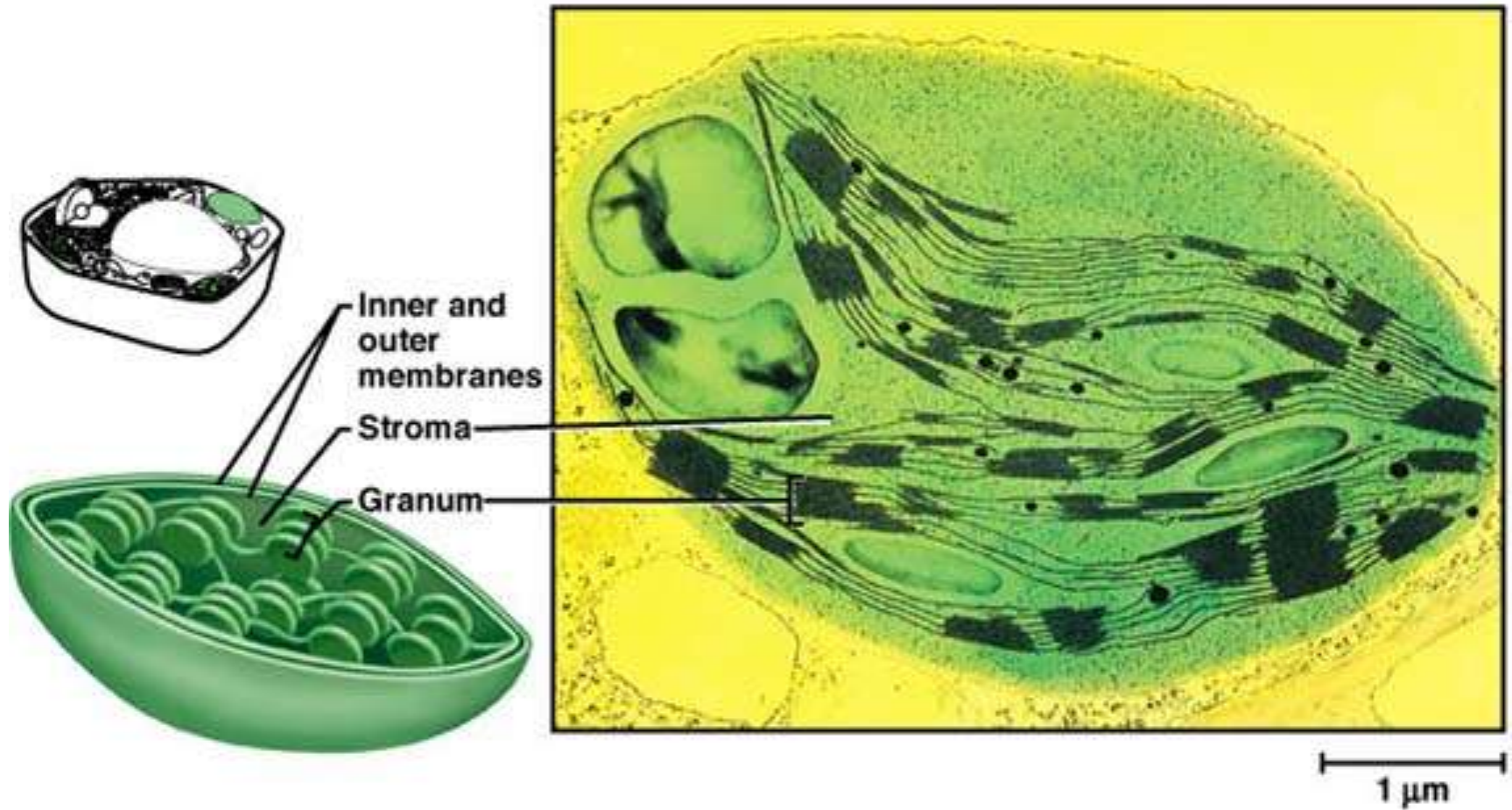
Cloroplastos



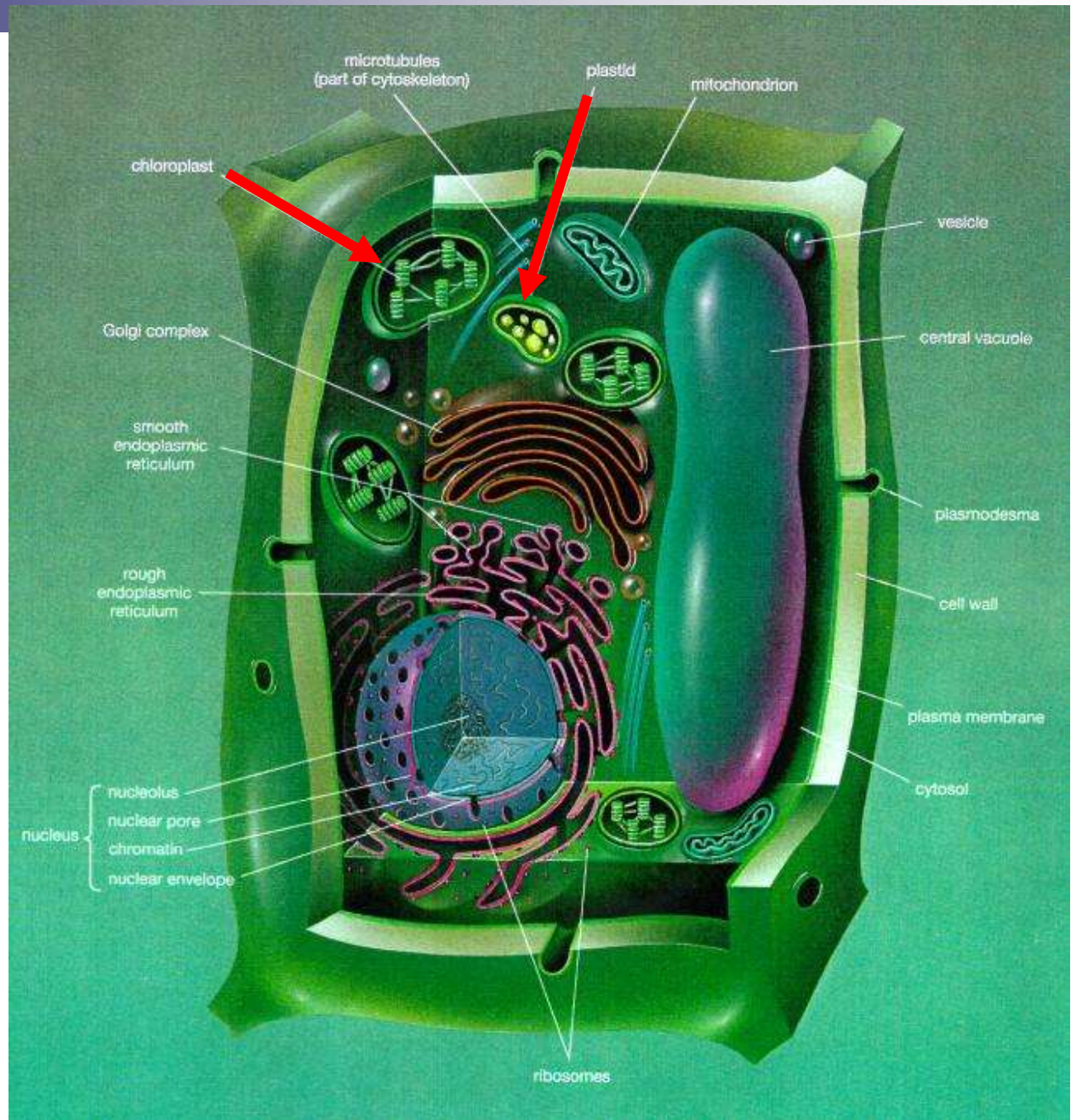
Cloroplastos



Cloroplastos



Plastos

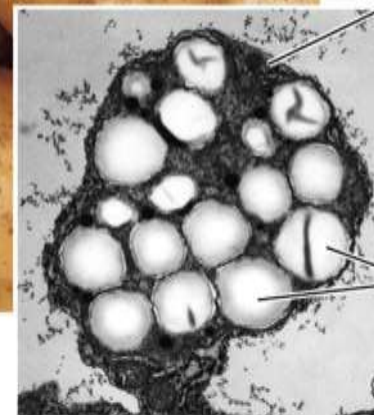
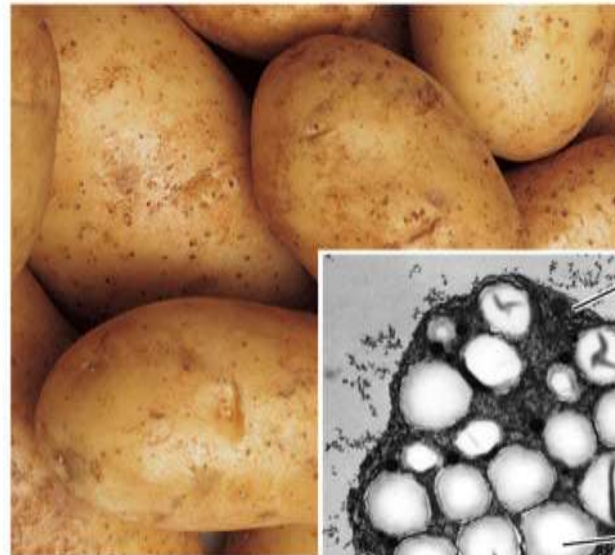


(a)



5 μm

(b)



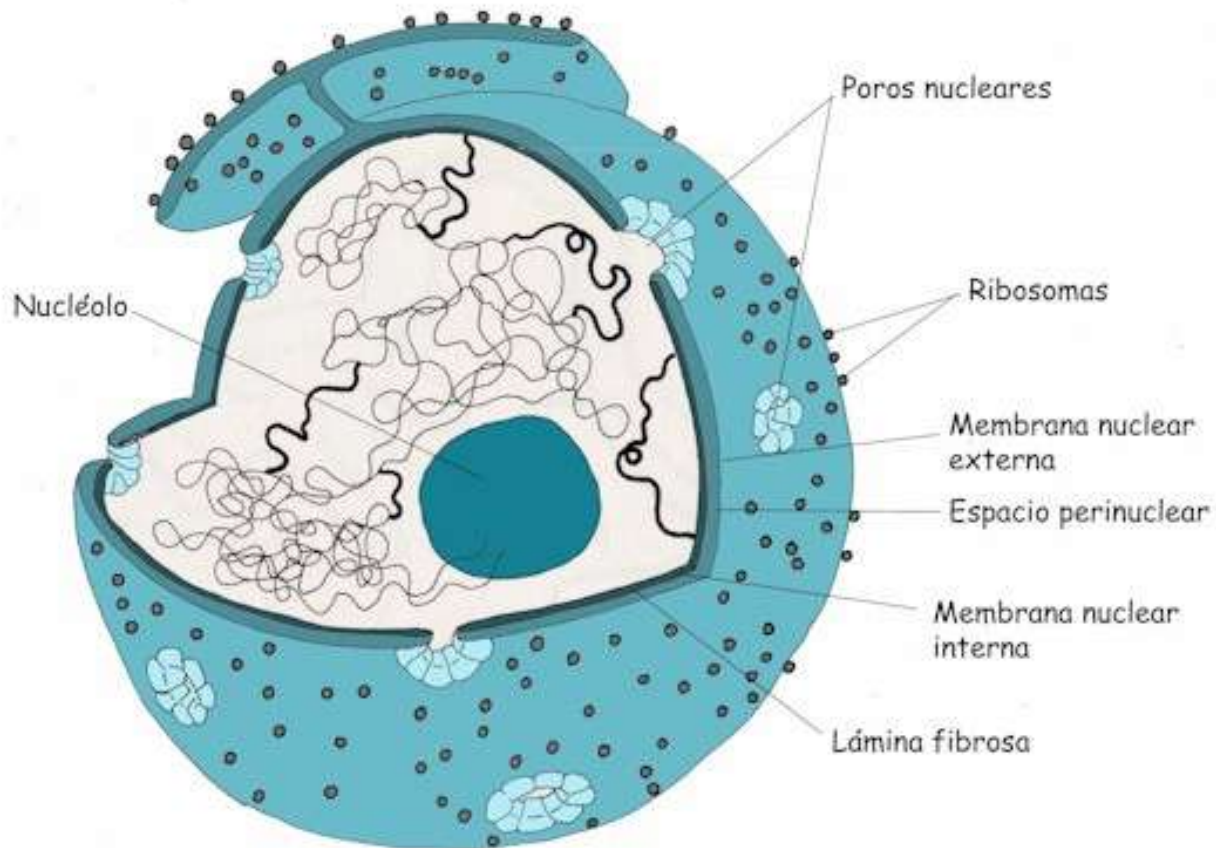
Leucoplast

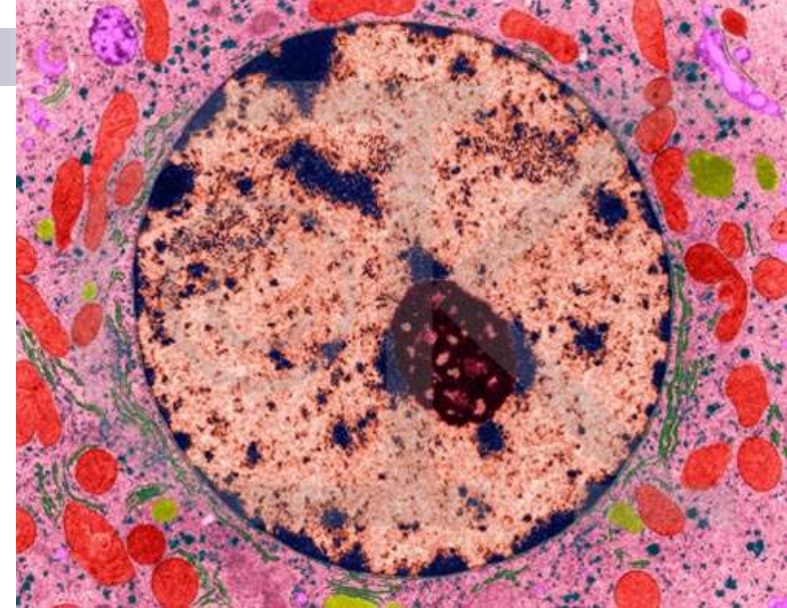
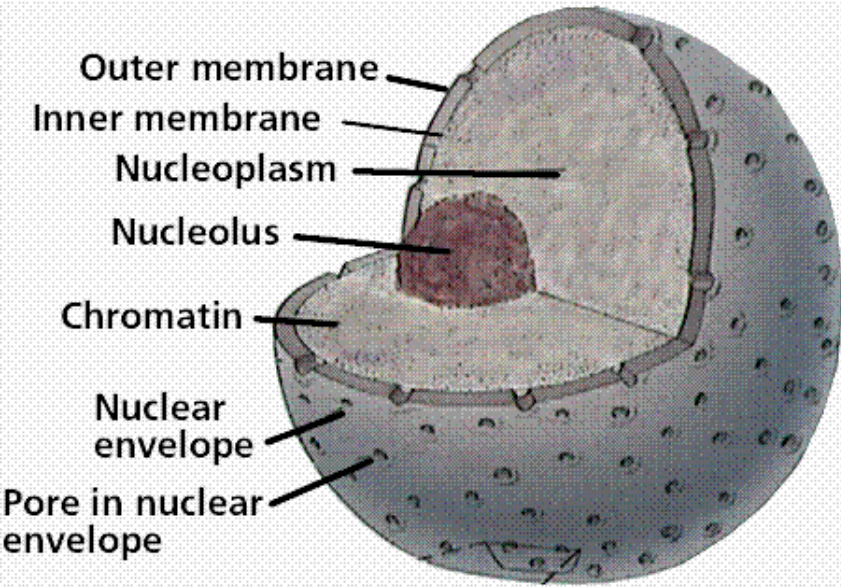
Starch grains

1 μm

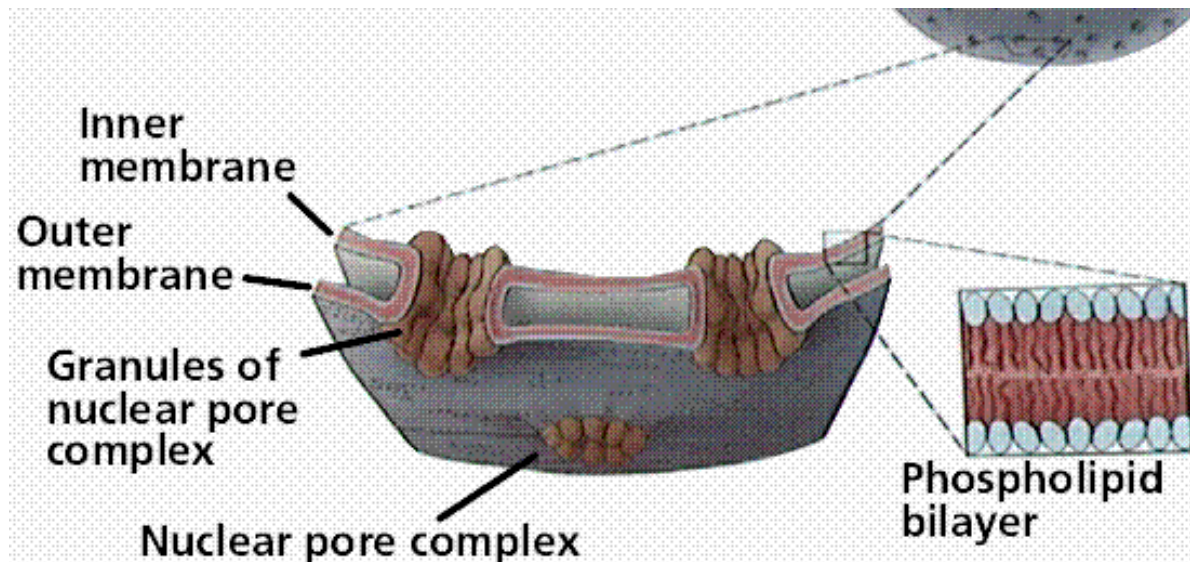
Plastos (cromo y leuco)

Núcleo

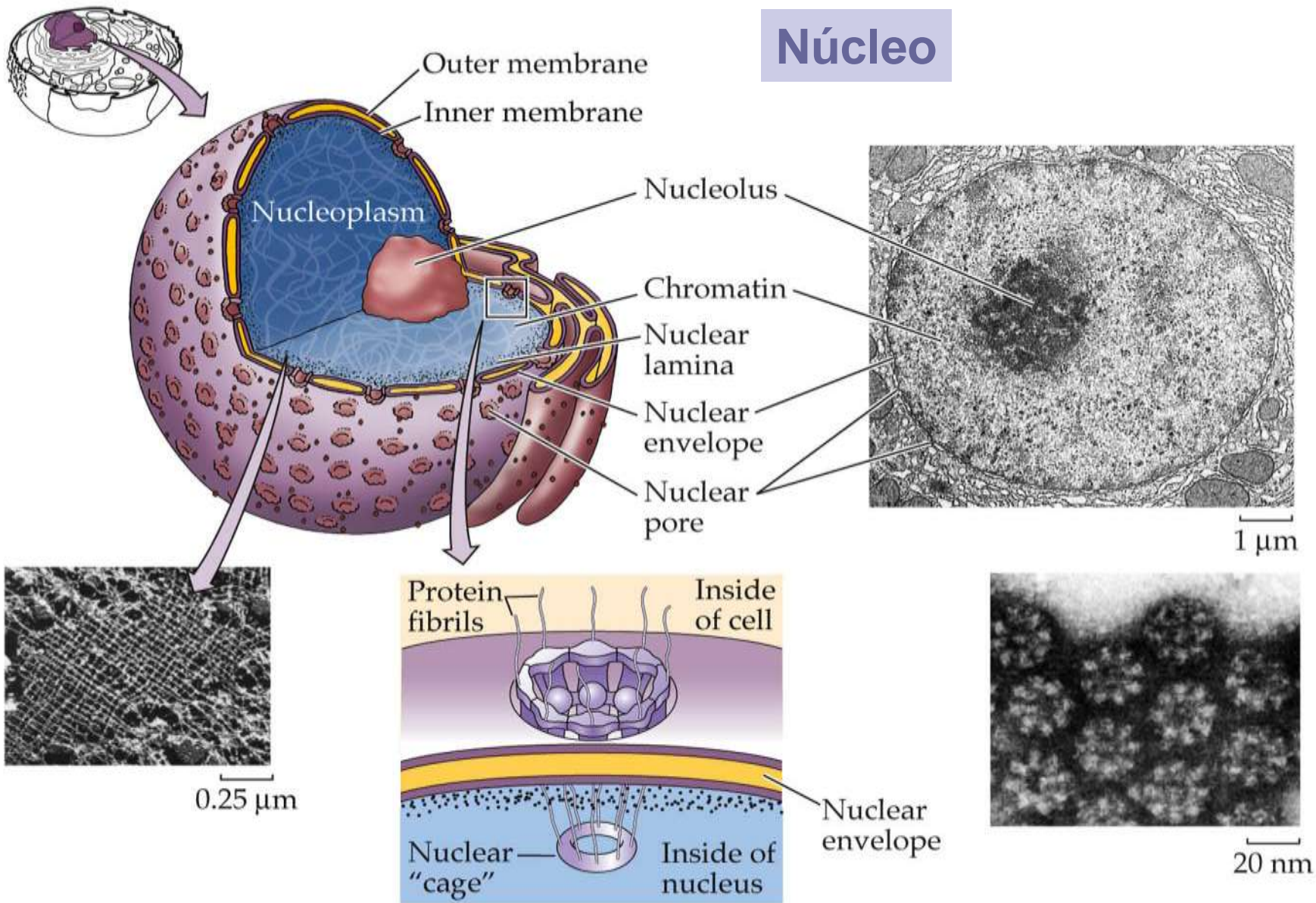




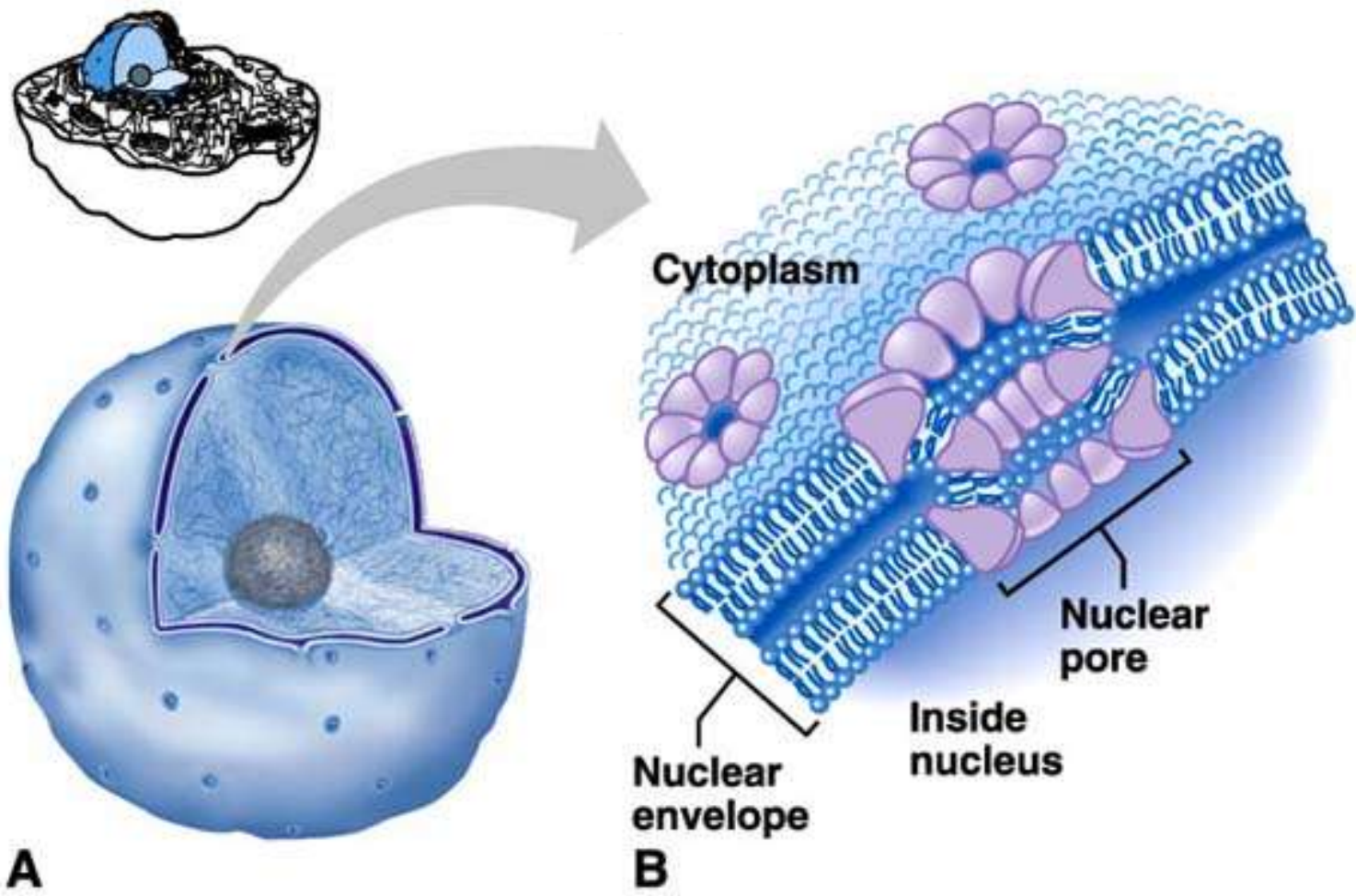
Núcleo

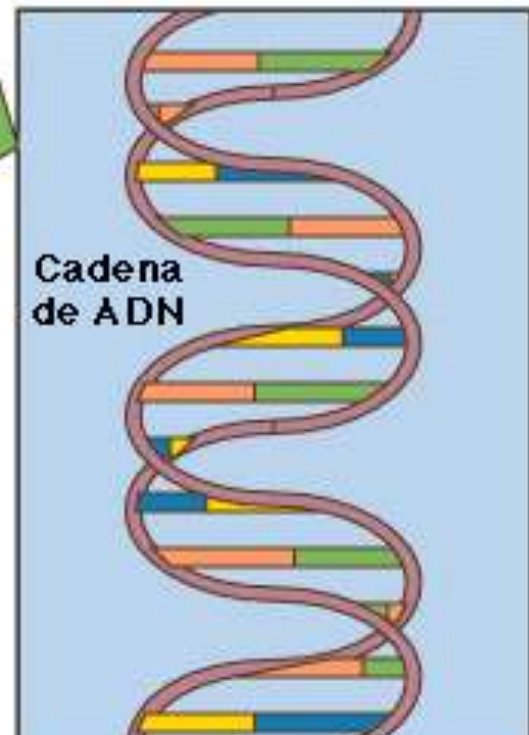
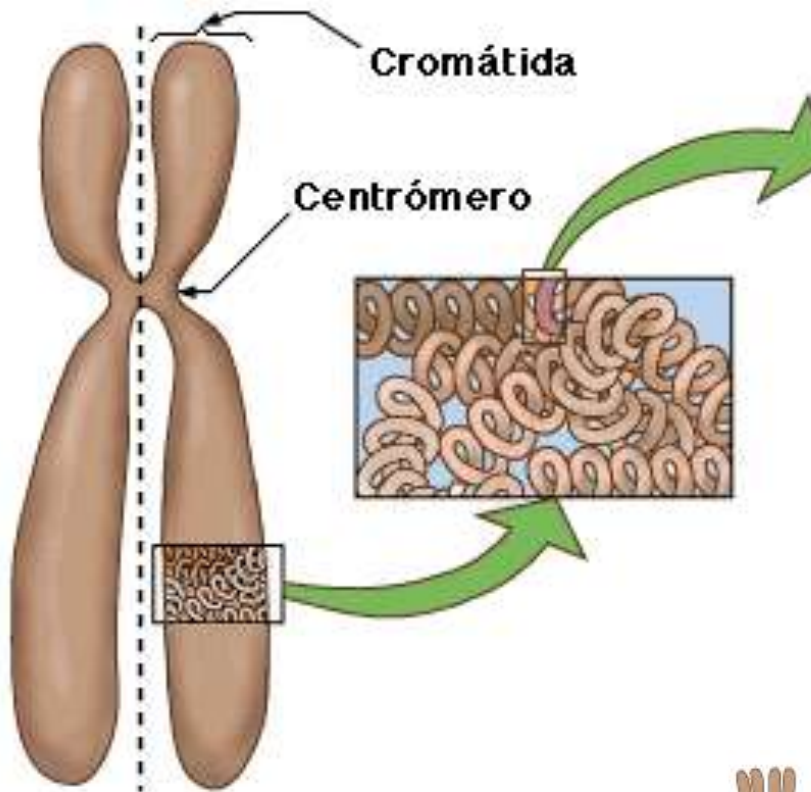


Núcleo



Núcleo





Cromosomas

