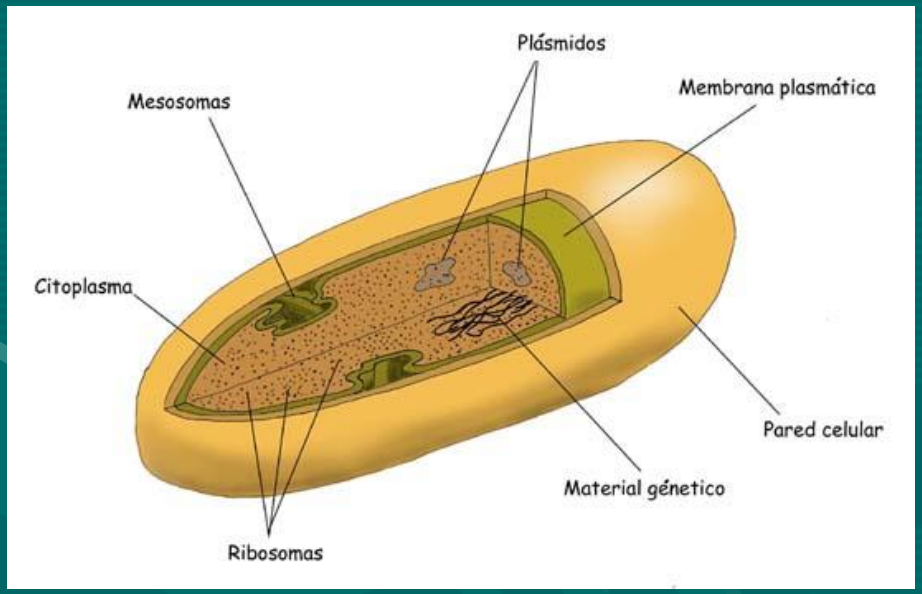
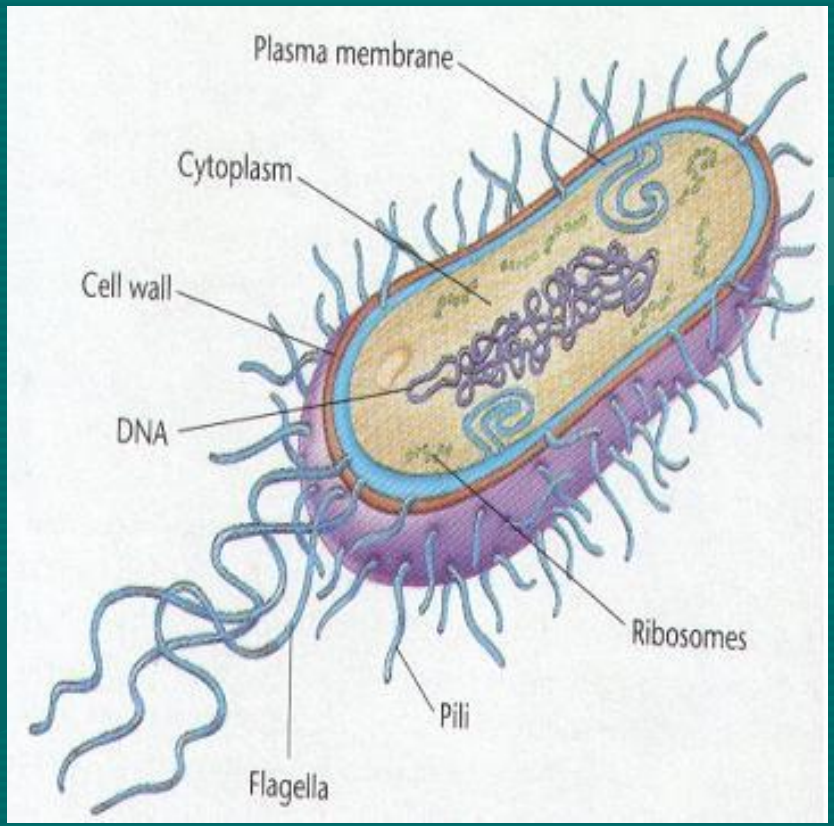
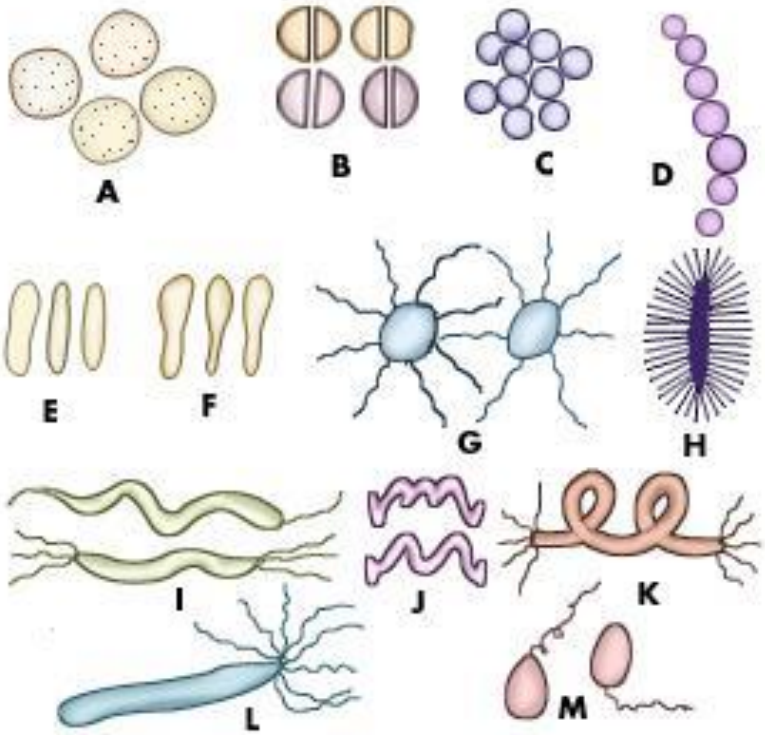
Célula procariota



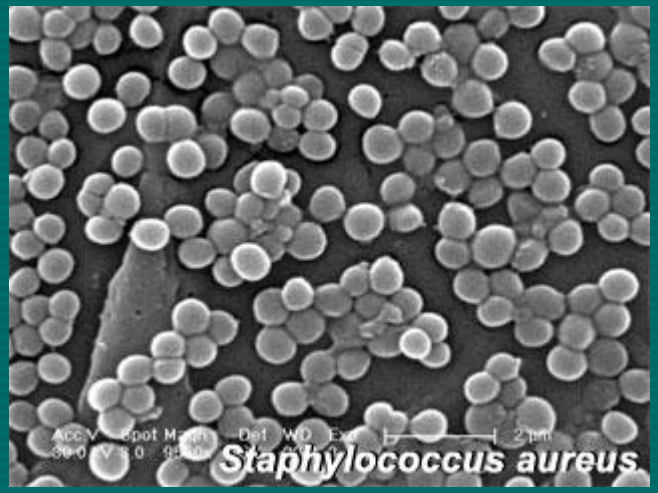


Célula procariota

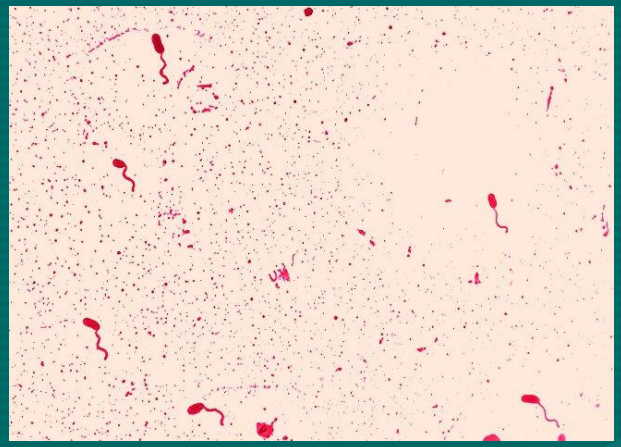


A. Micrococcus B. Diplococcus C. Staphylococcus D. Streptococcus E. Bacillus F. Cornybacterium G. Bacillus typhi H. Proteus I. Spirillum J. Cyphilis Bacteria. K. Nitrogen fiding bacteria. L. Thiospillum. M. Vibrio

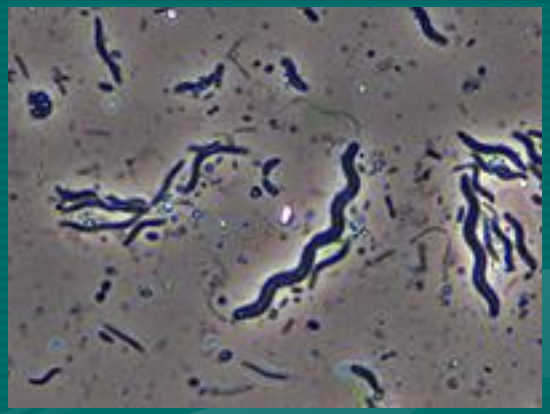
Célula procariota



Stafilococos



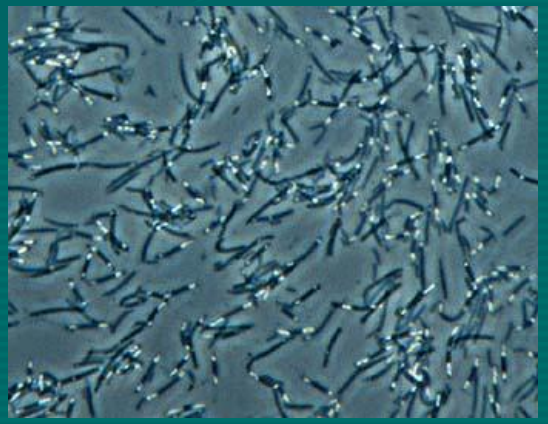
Vibrios



Espirilos

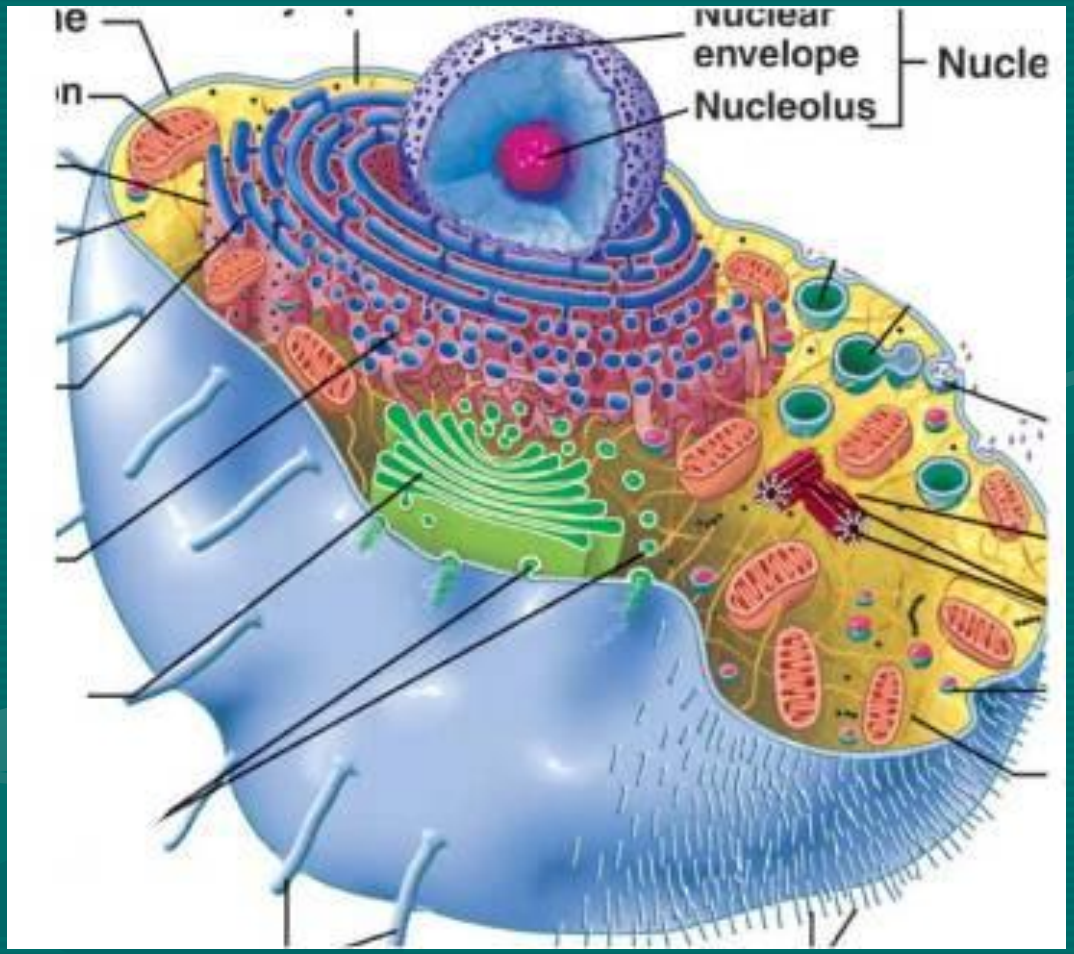
Streptococos

Espiroqueta

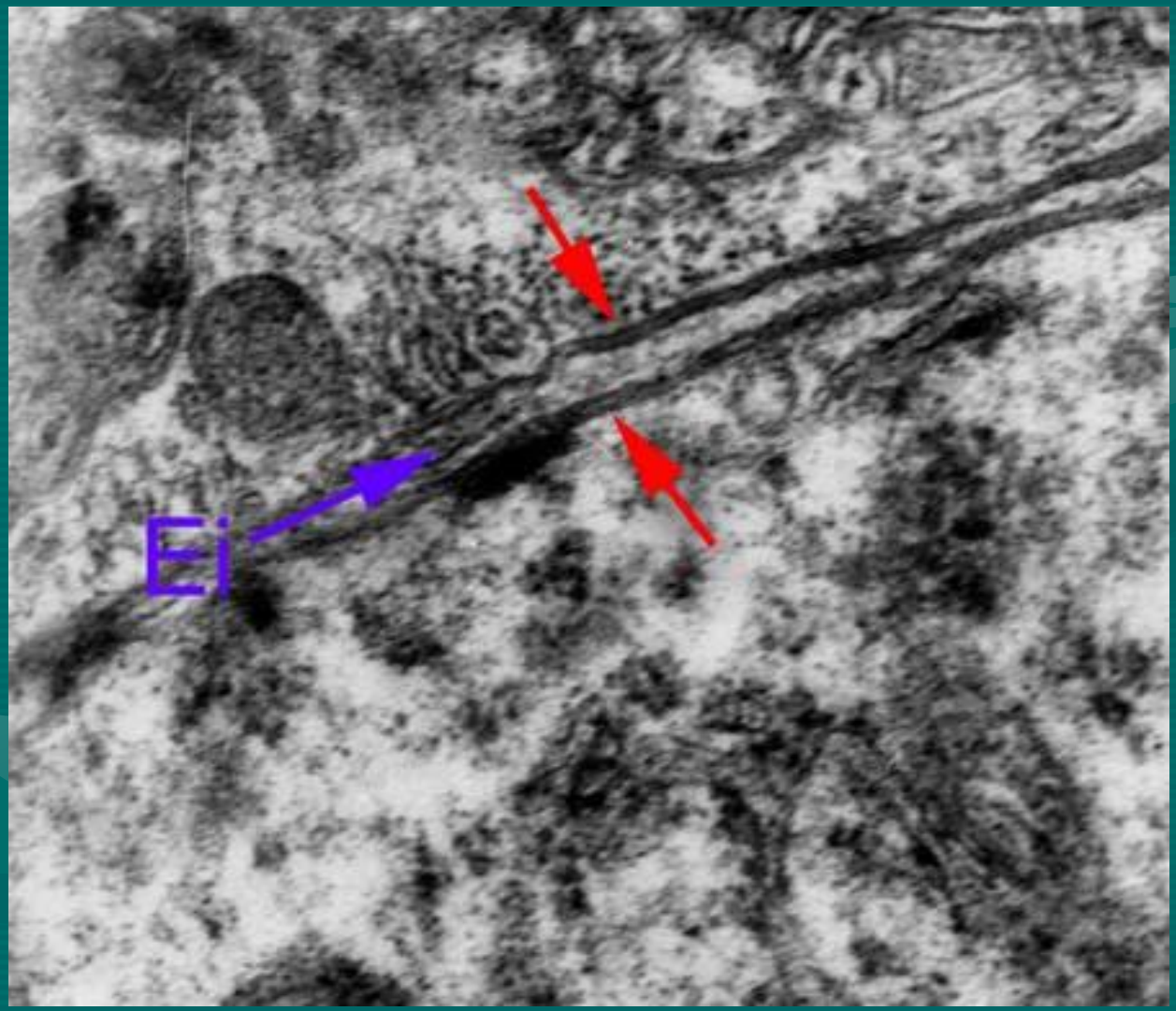


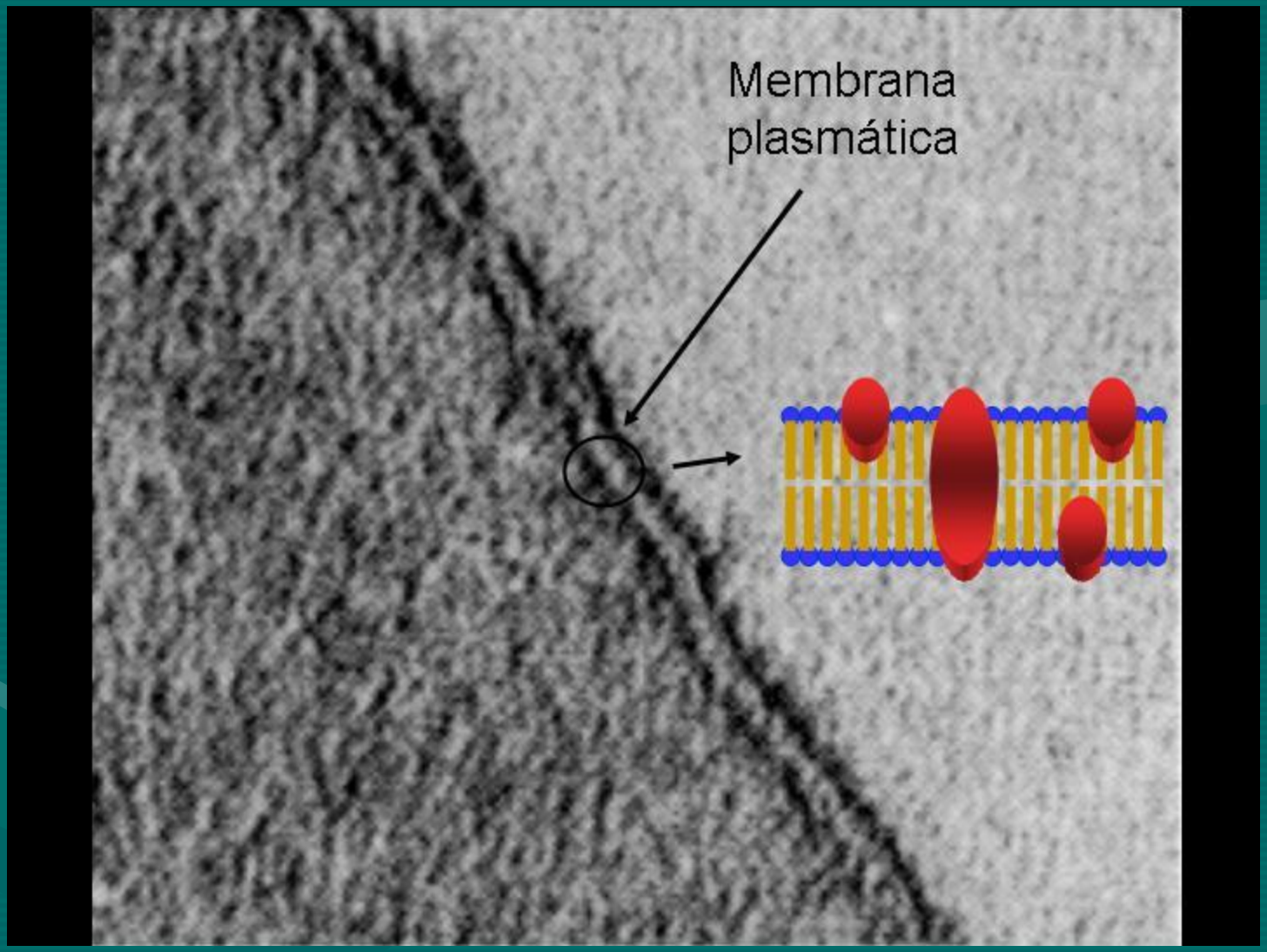
Bacilos

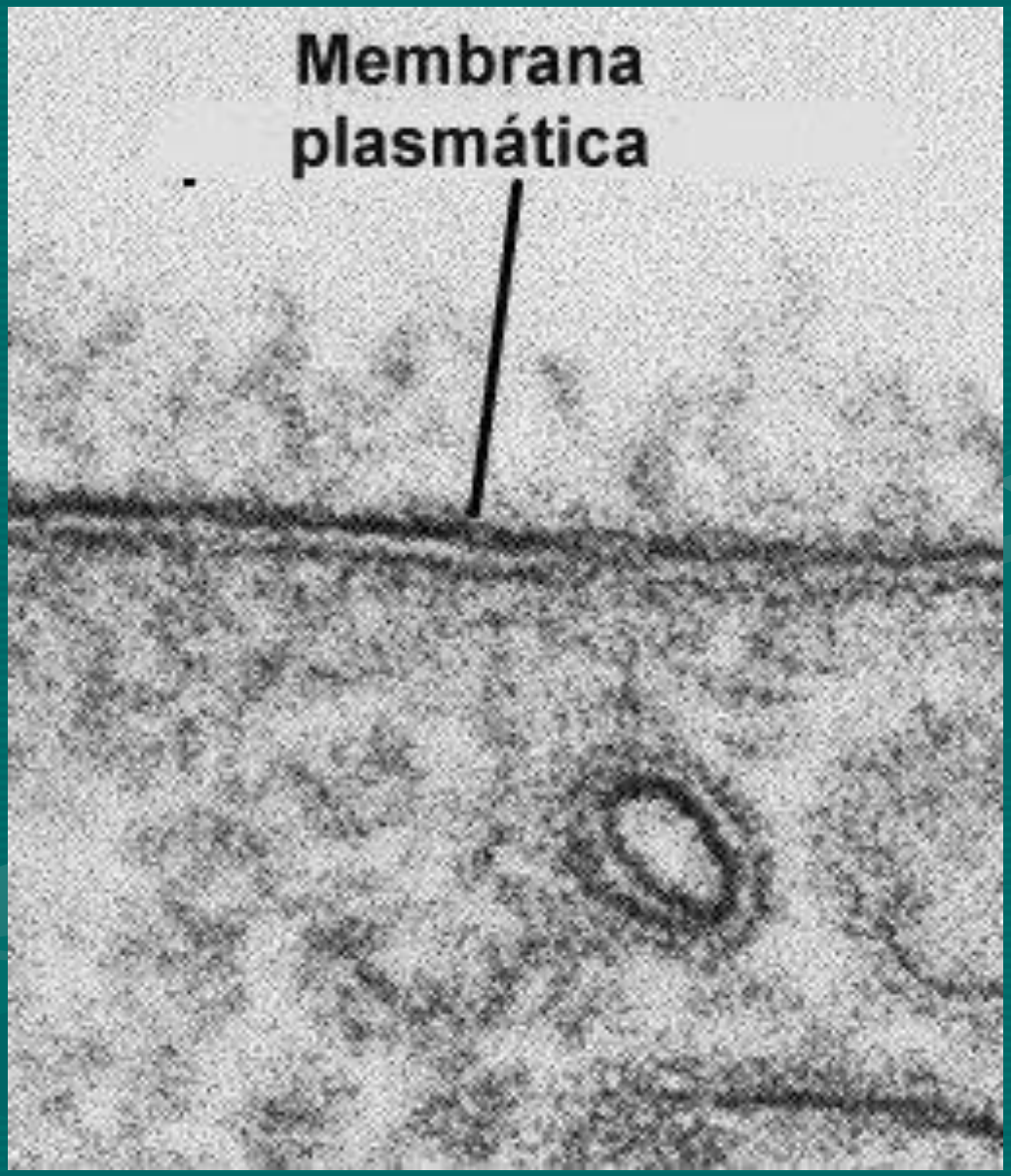
Célula Eucariota

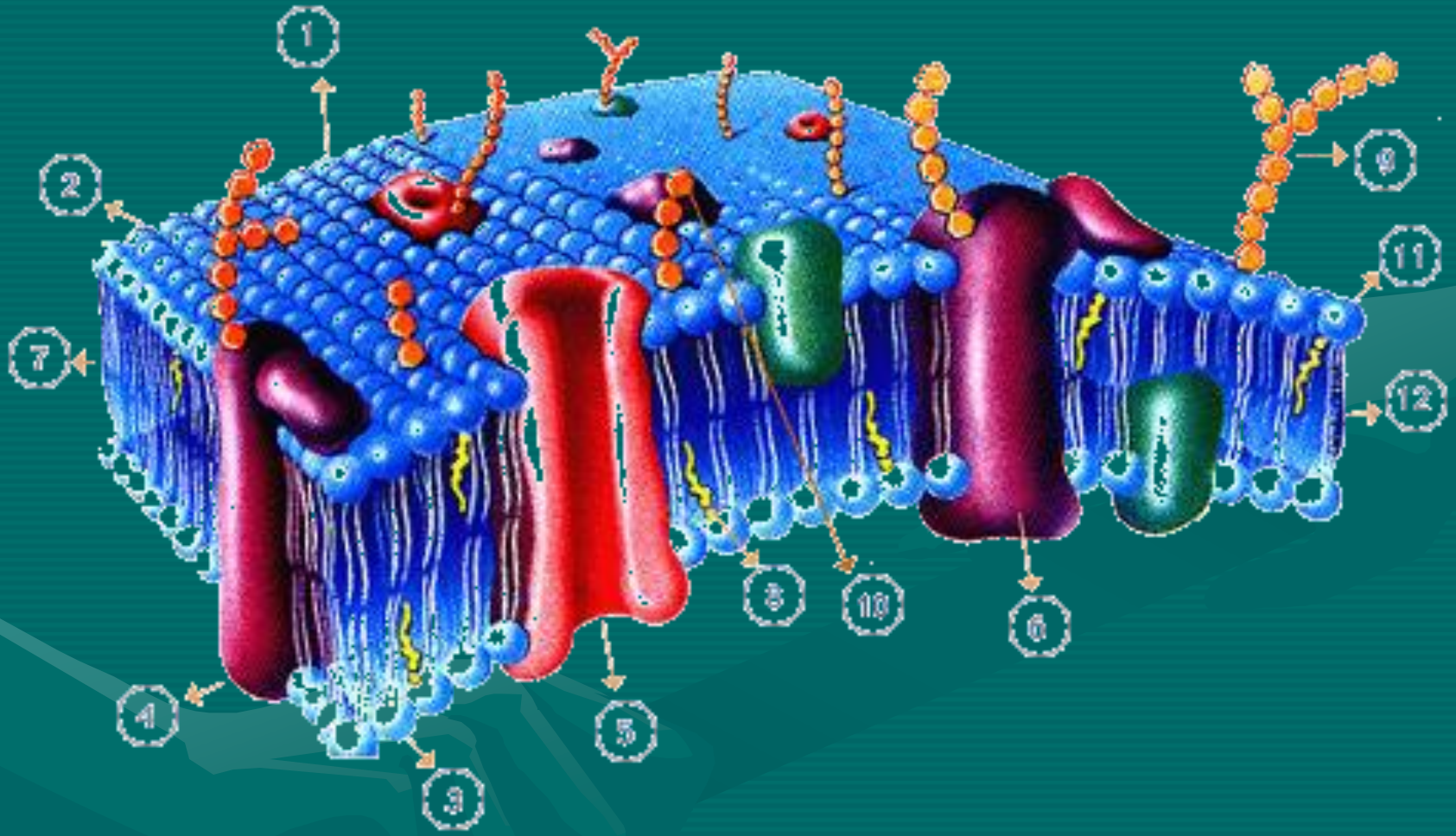


MEMBRANA PLASMÁTICA




Membrana
plasmática


Membrana
plasmática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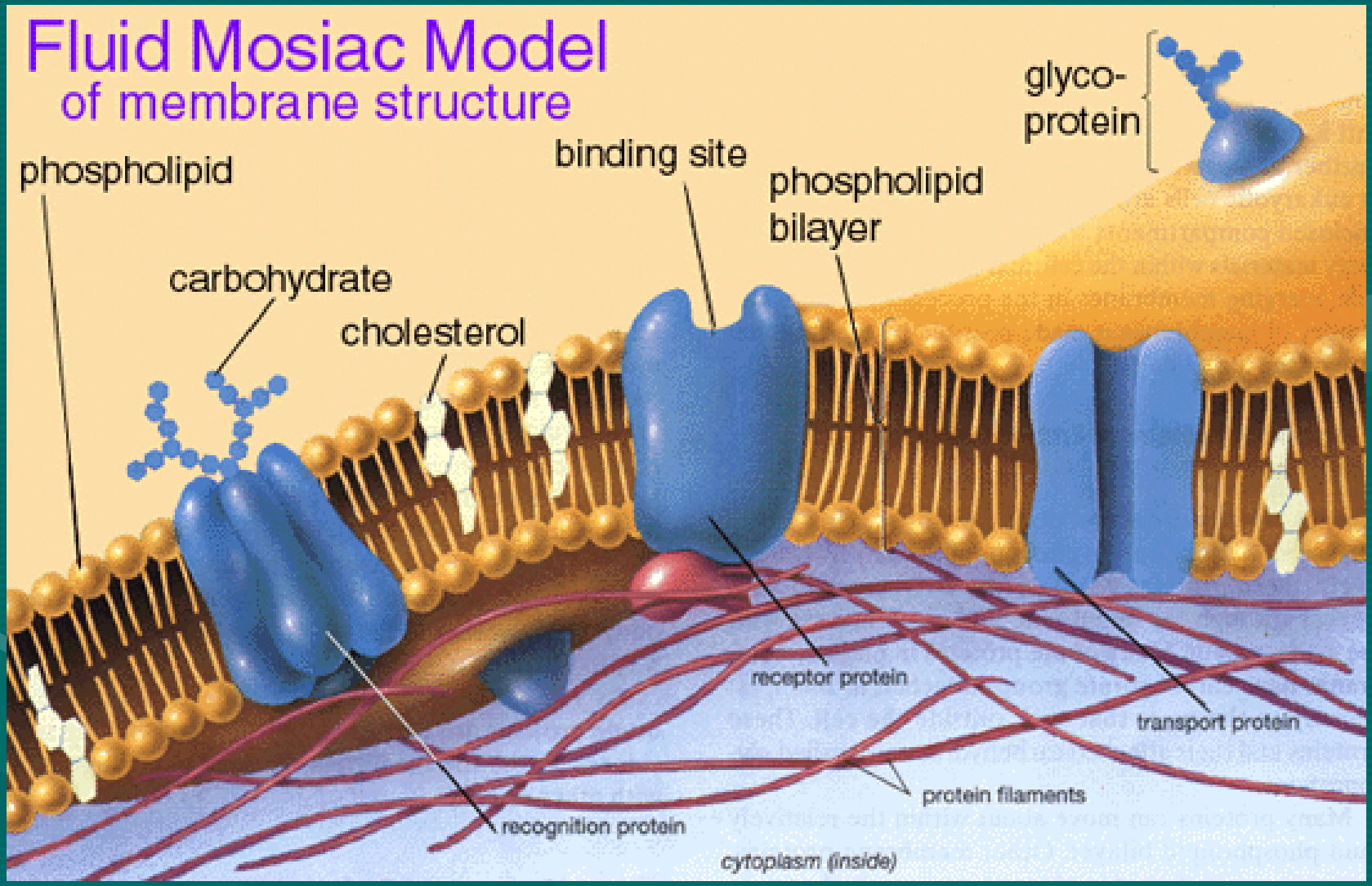
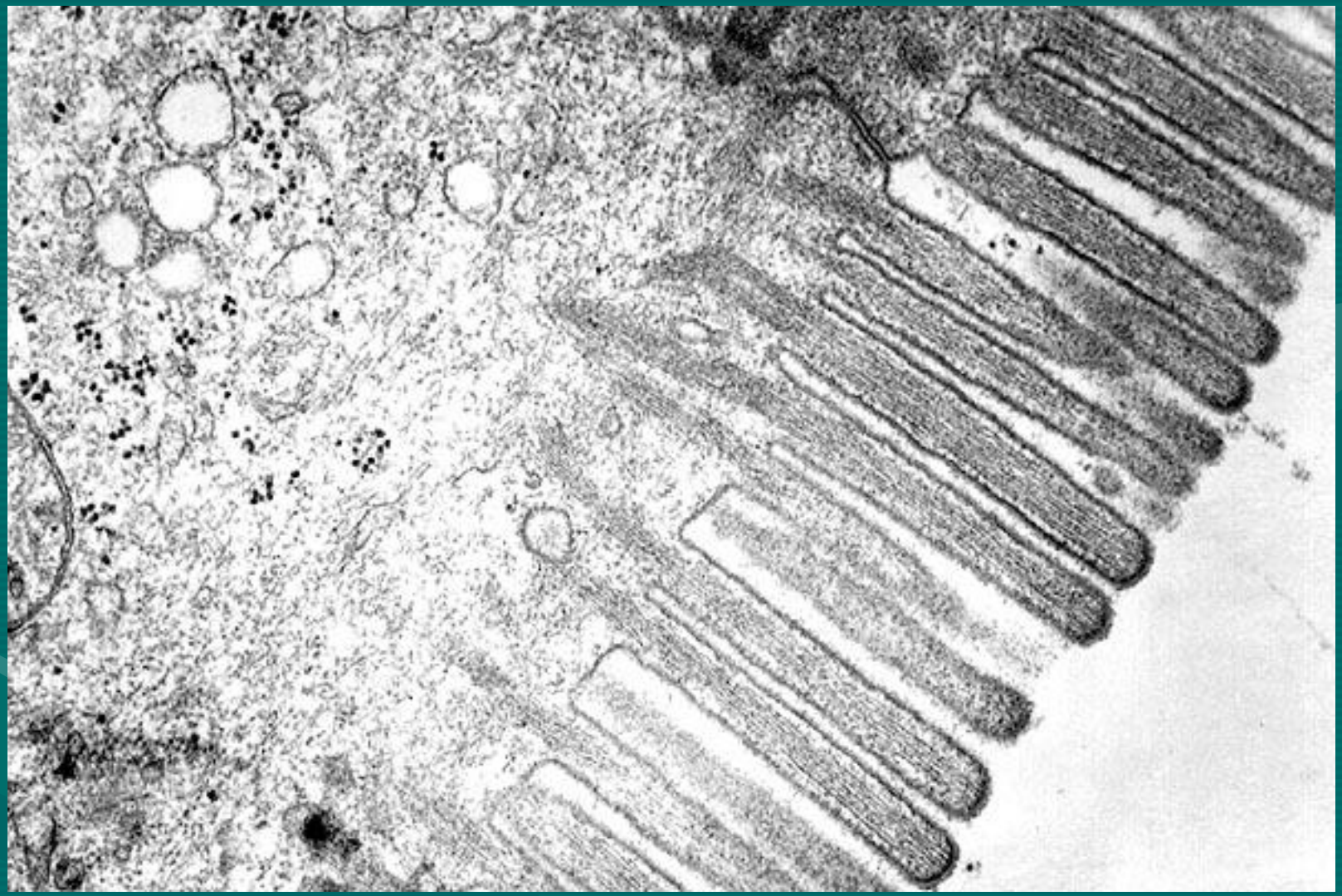
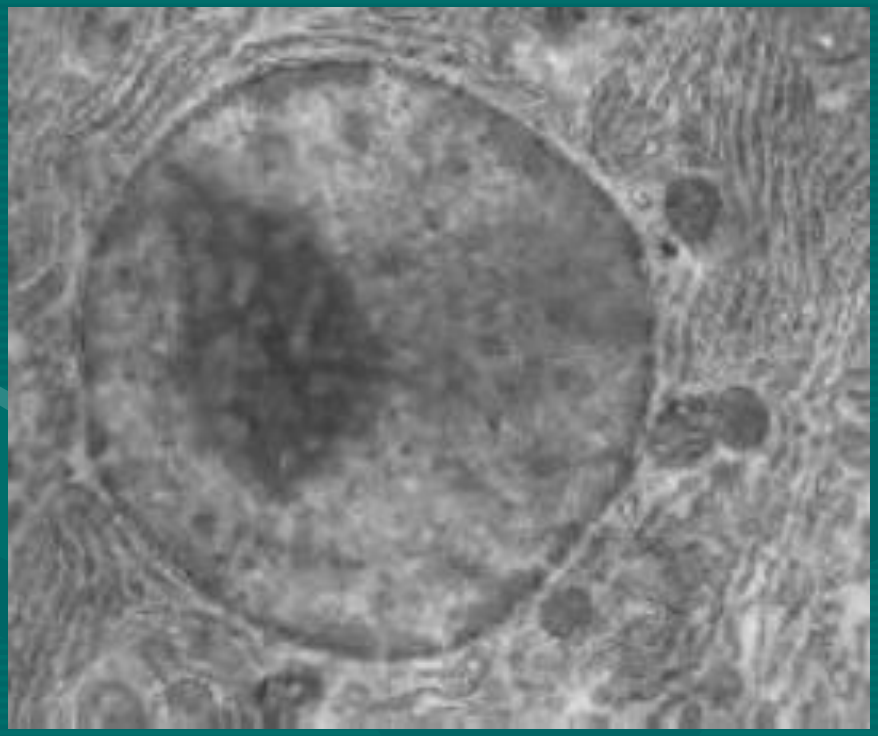
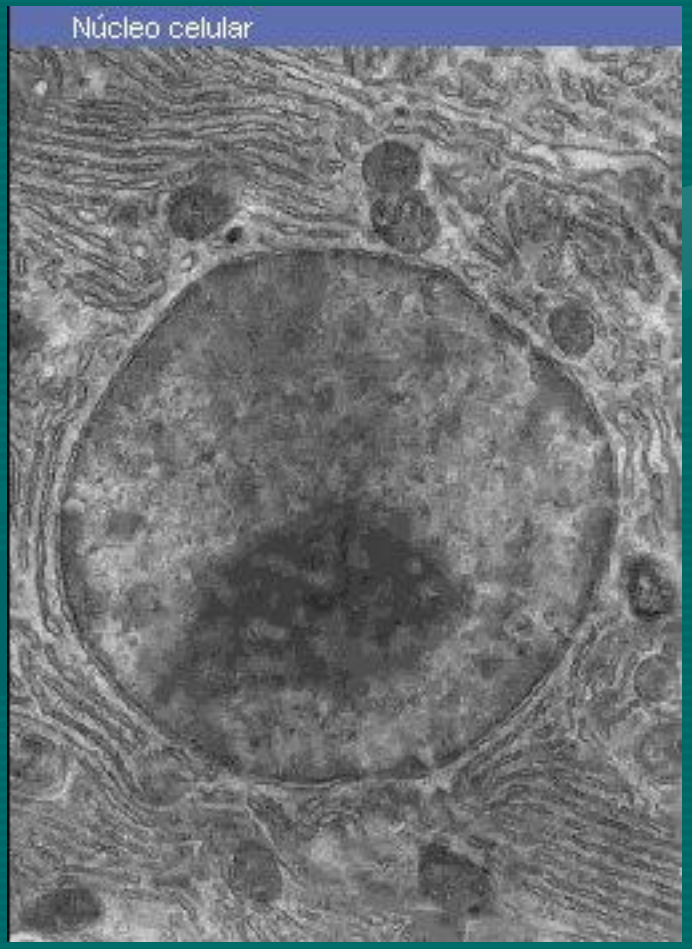

Fluid Mosiac Model
of membrane structure
glyco-
protein
phospholipid
binding site
phospholipid
bilayer
carbohydrate
cholesterol
receptor protein
transport protein
protein filaments
recognition protein
cytoplasm (inside)

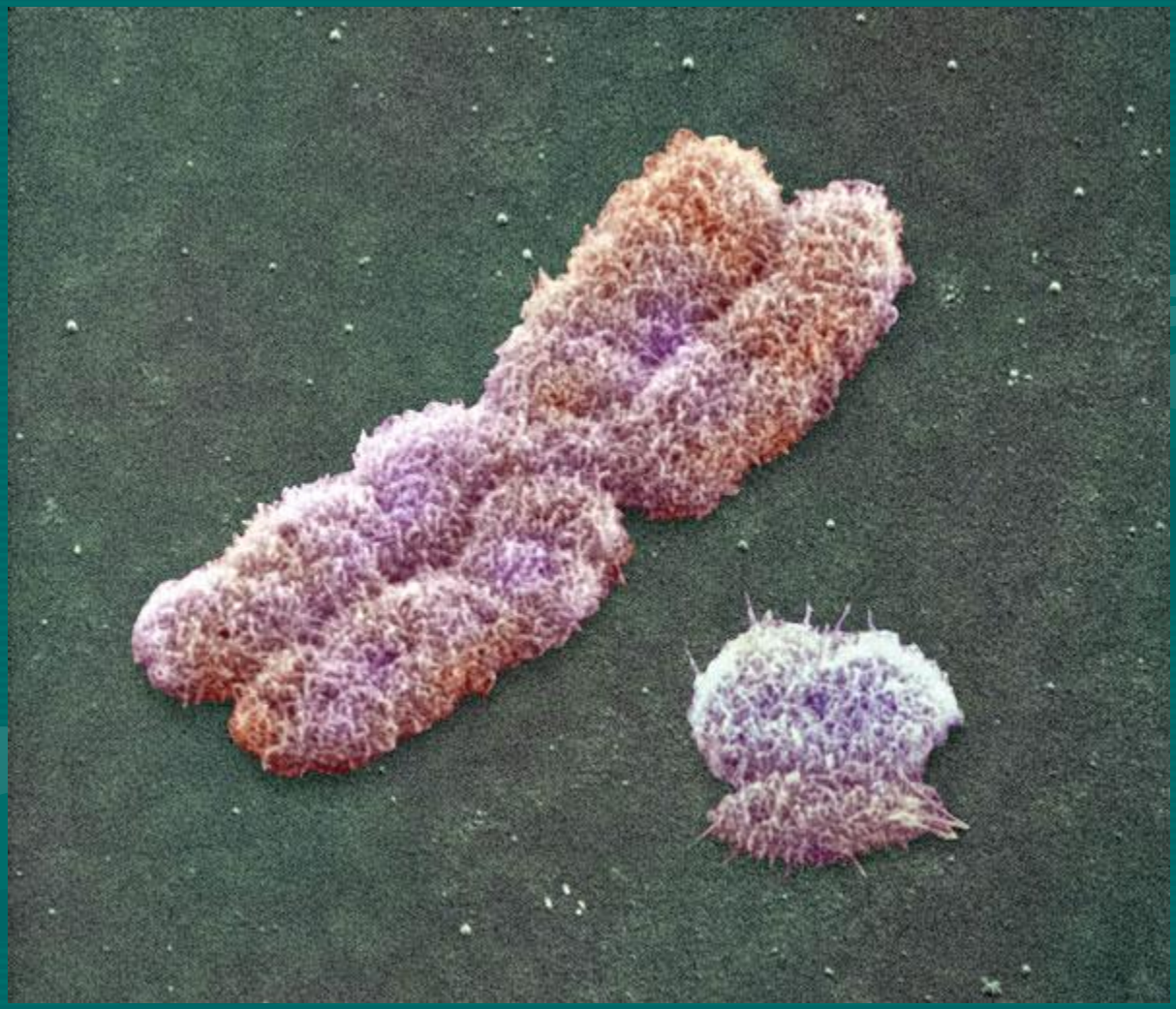


Núcleo





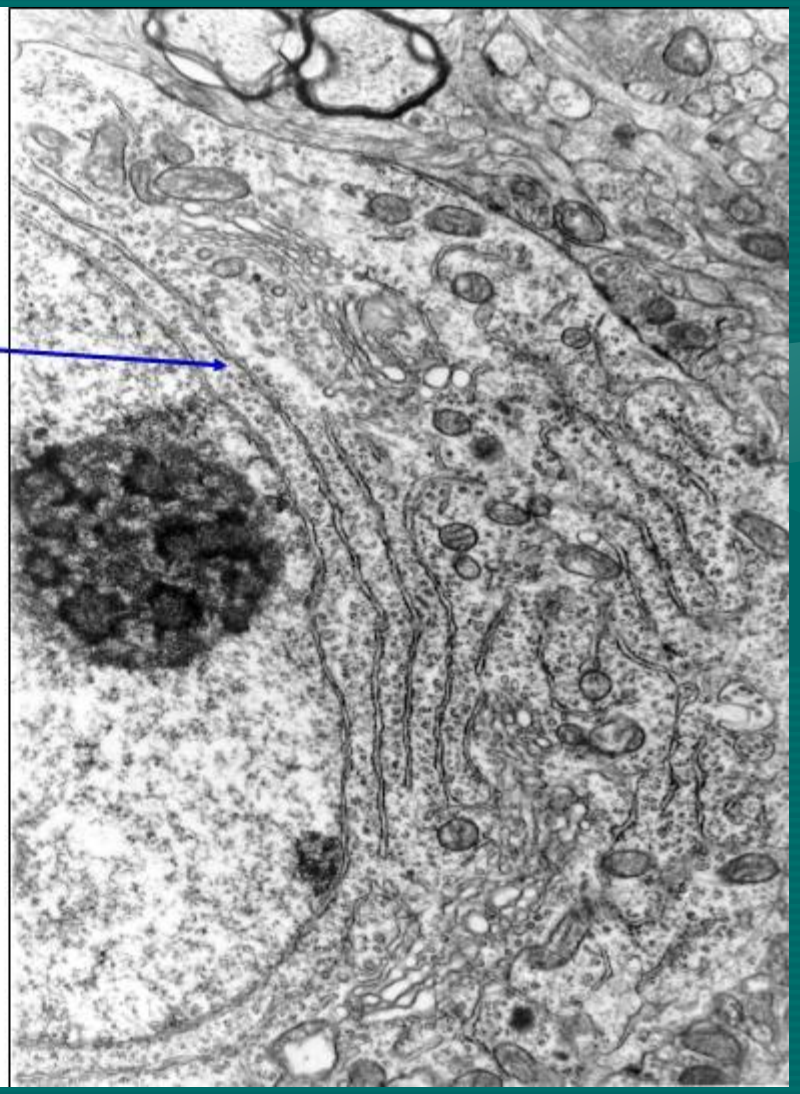
Cromosomas



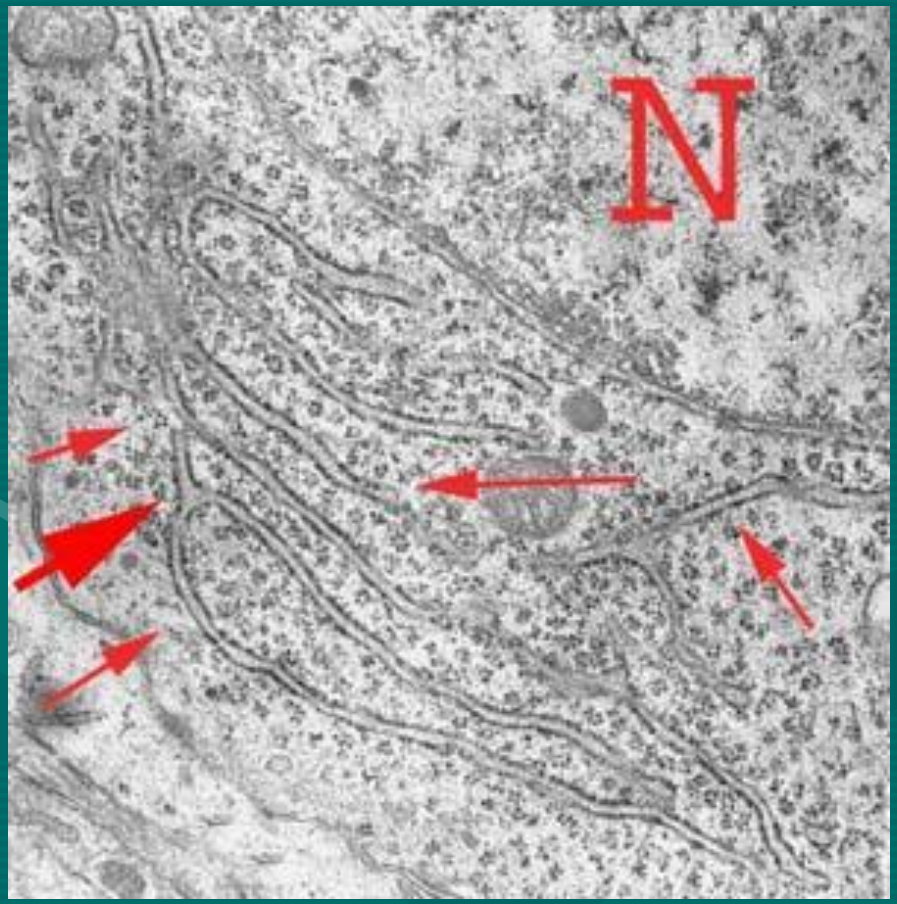
RETÍCULO ENDOPLASMÁTICO LISO E RUGOSO

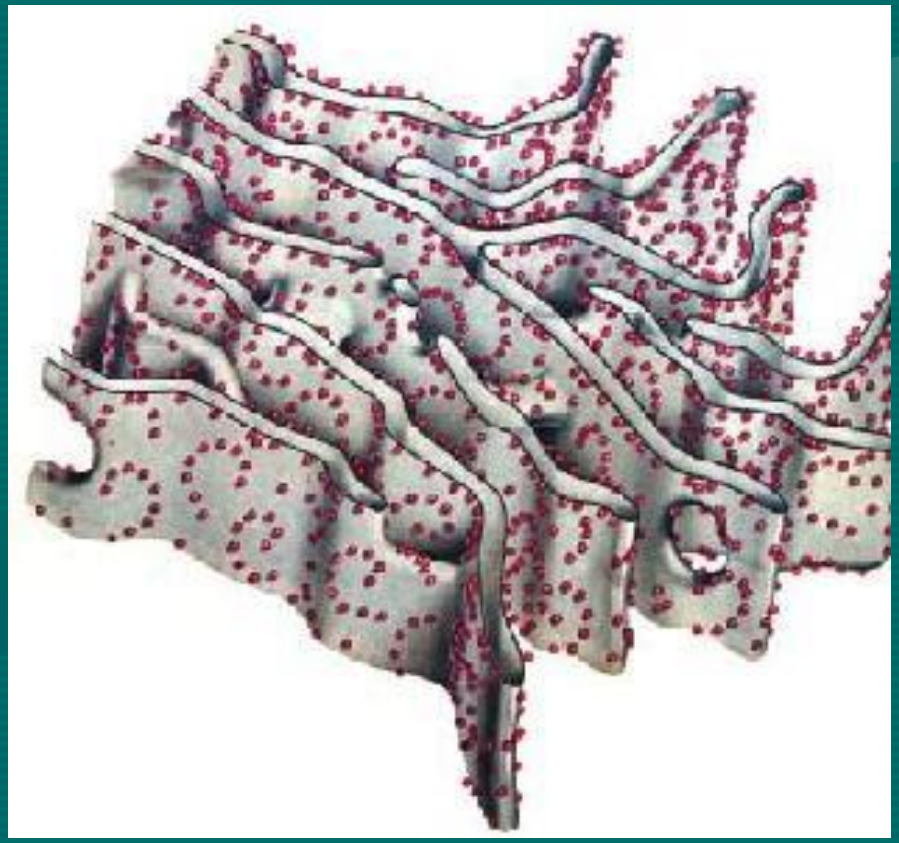
Sistemas de membranas del citoplasma

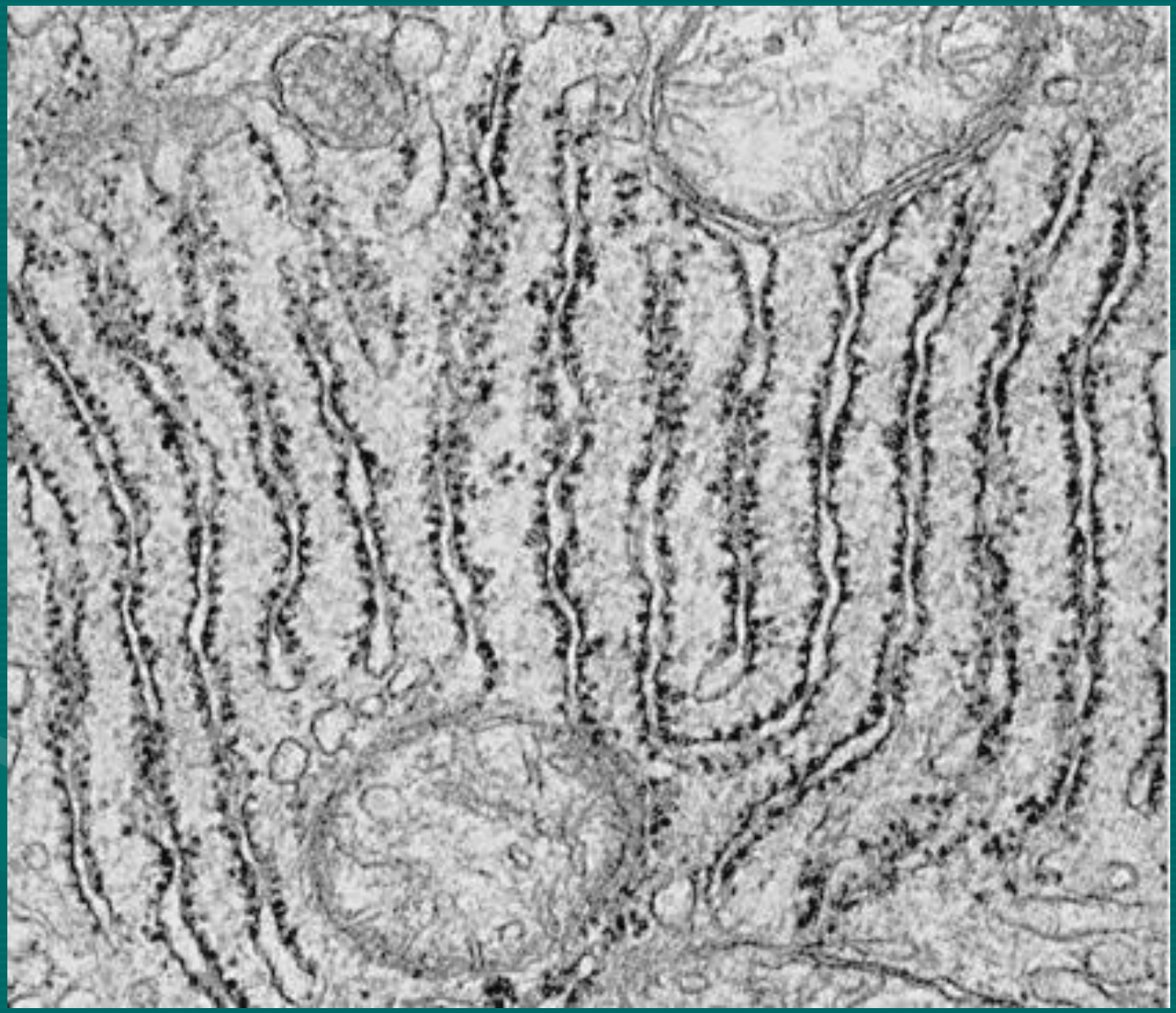
En la foto: fragmento de una célula visto al microscopio electrónico en el que se pueden observar elementos del REG.

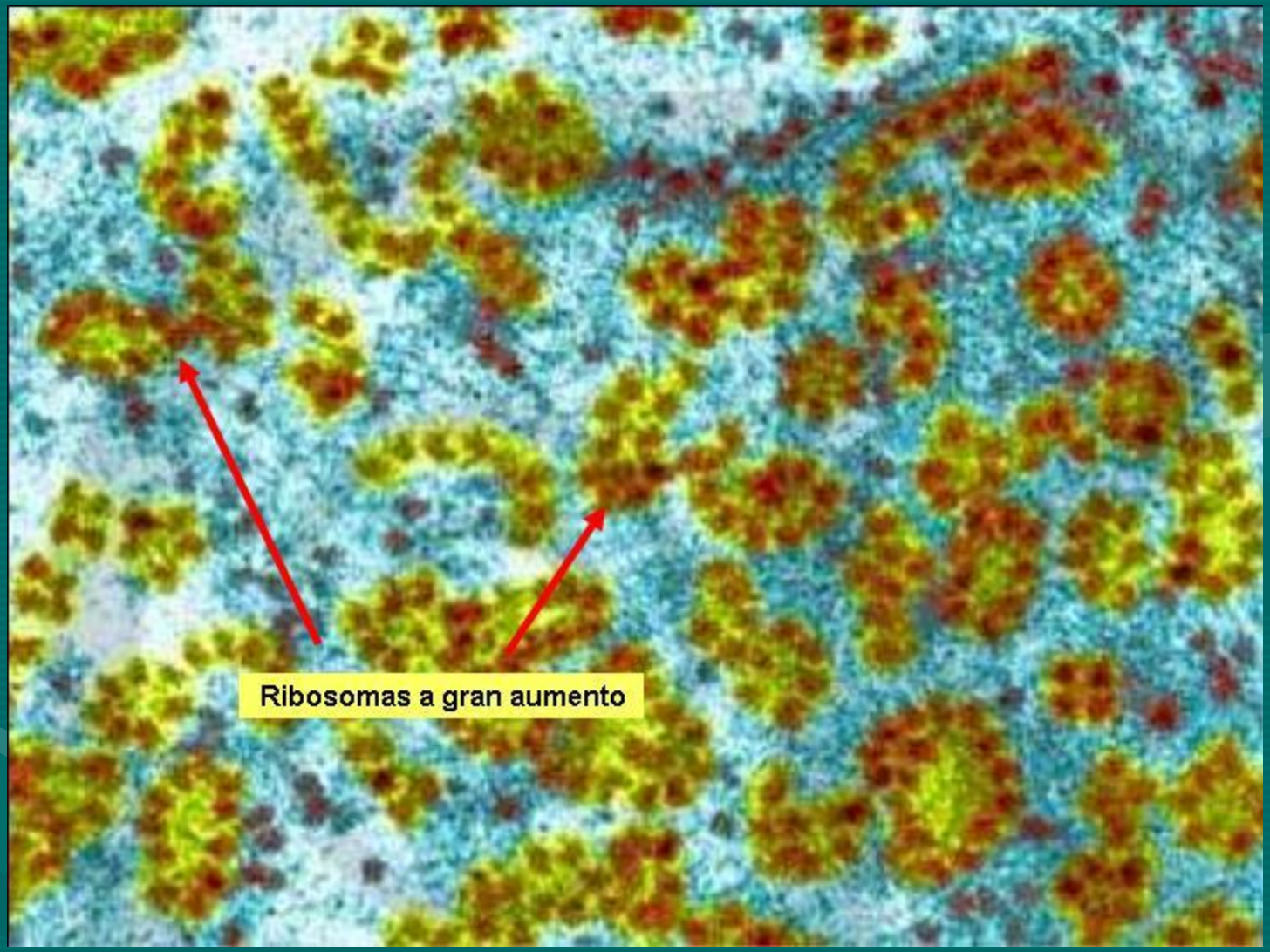


RETÍCULO ENDOPLASMÁTICO RUGOSO

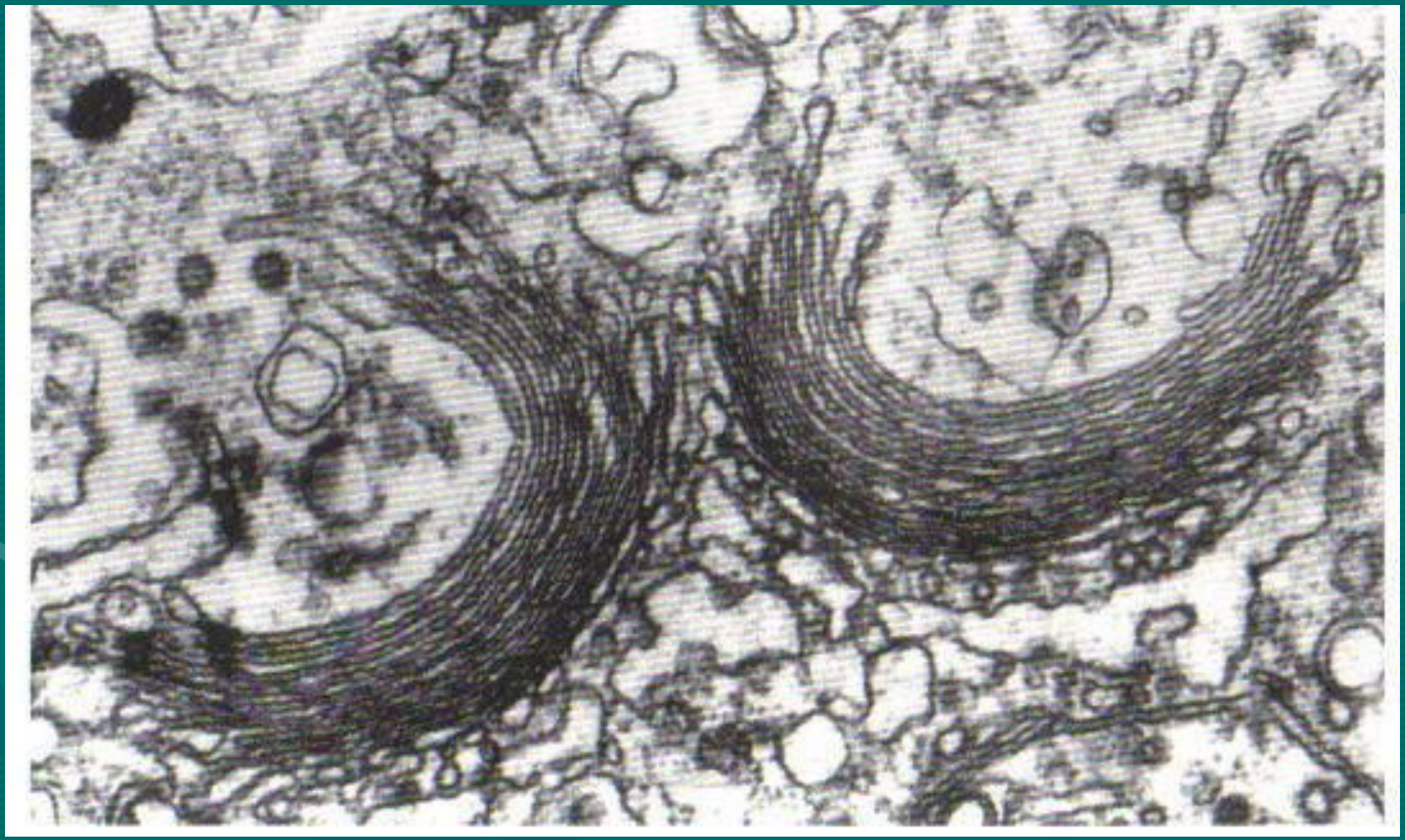


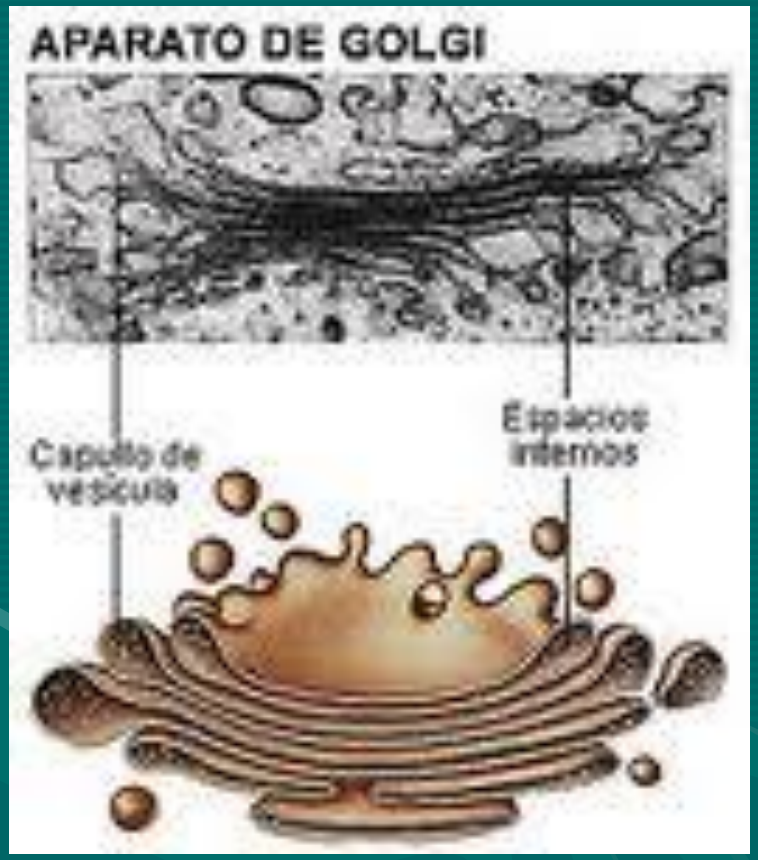


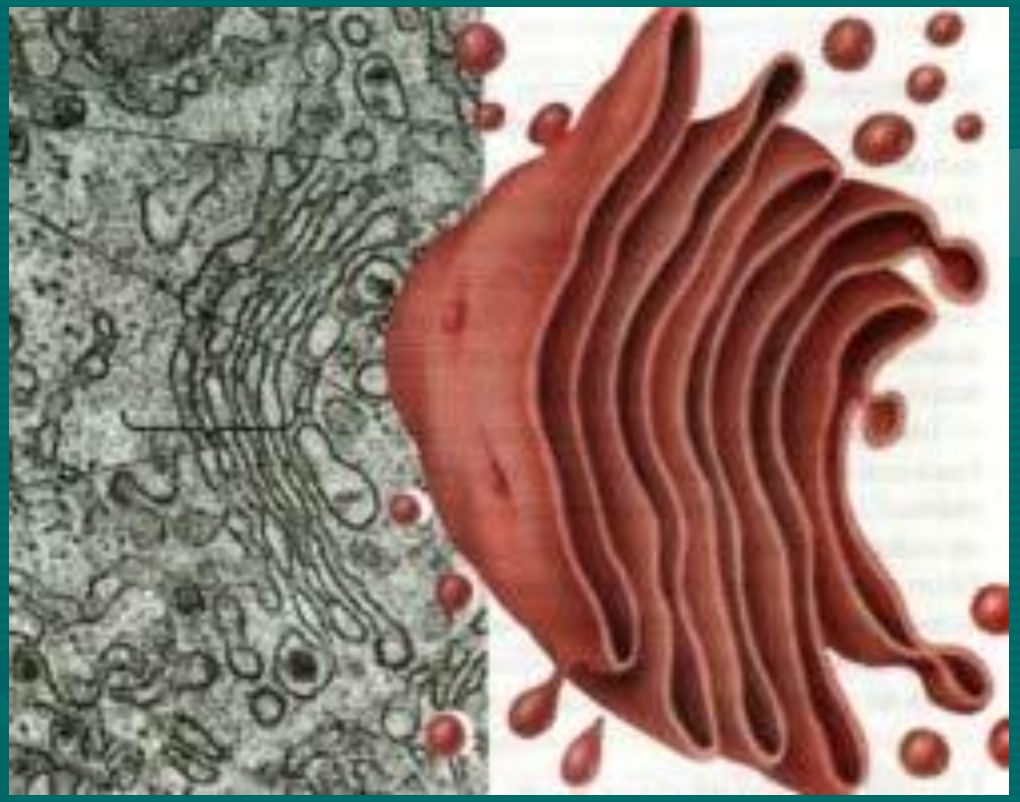



Ribosomas a gran aumento

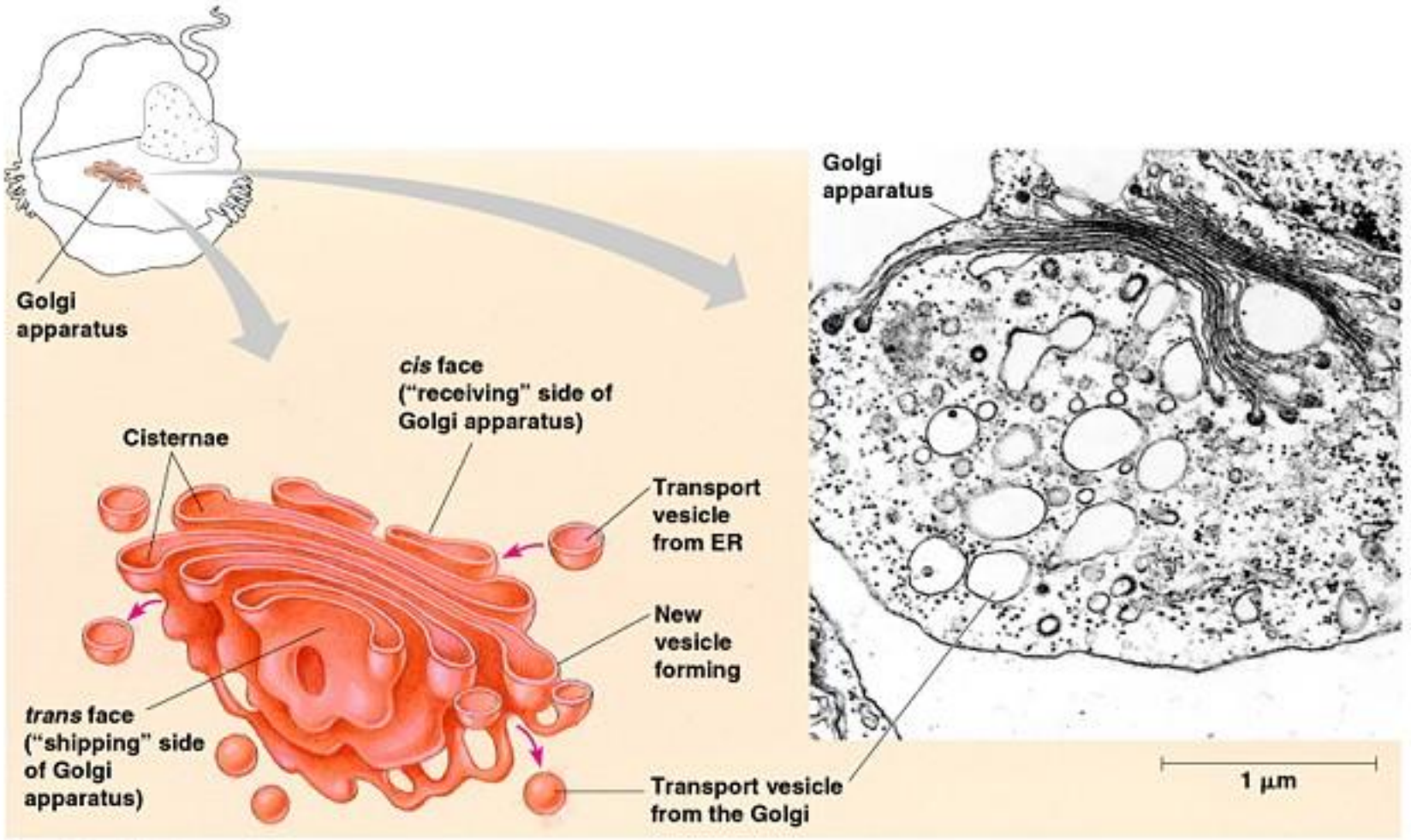
Aparato de Golgi



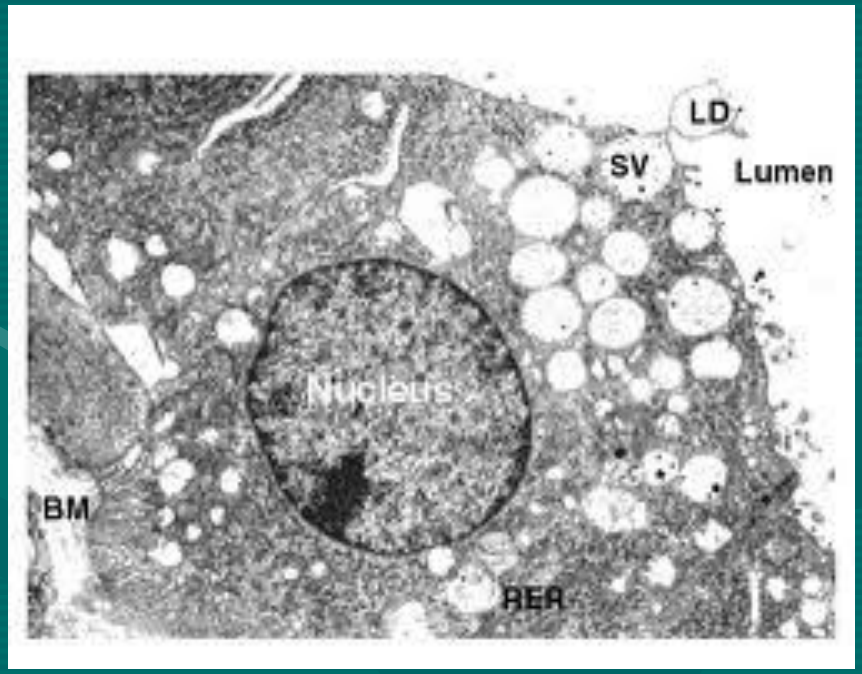

APARATO DE GOLGI
Capullo de vesícula
Espacios internos

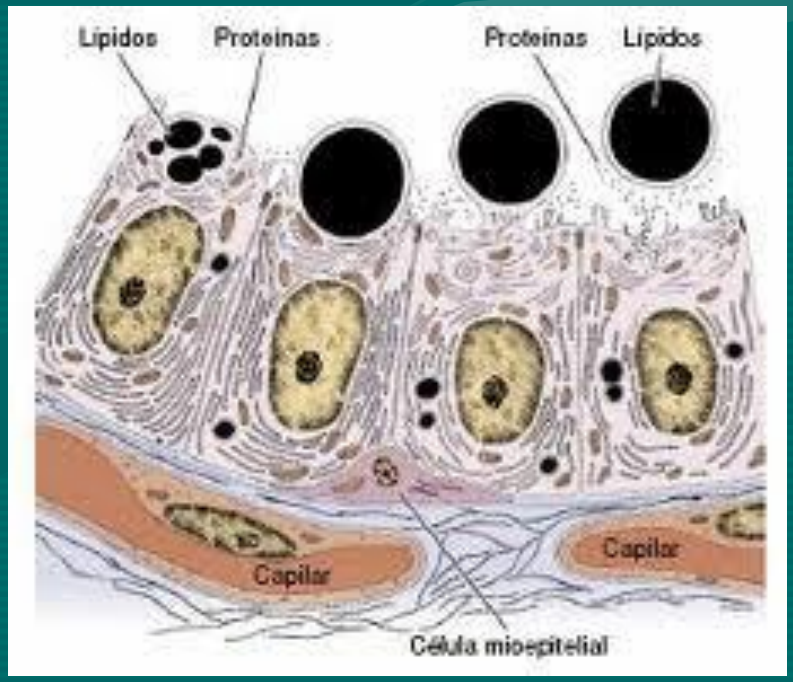


Aparato de Golgi



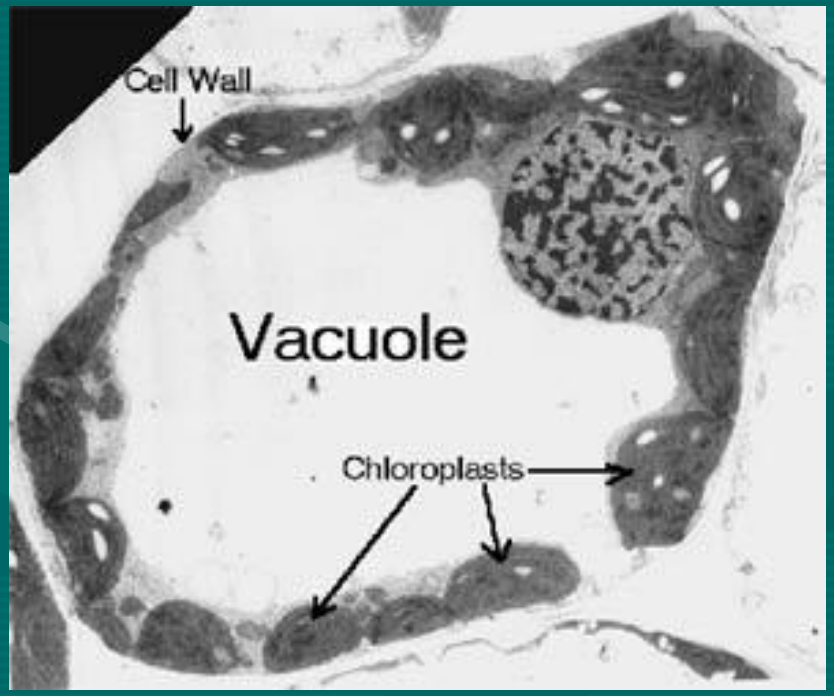
Celulas secretoras

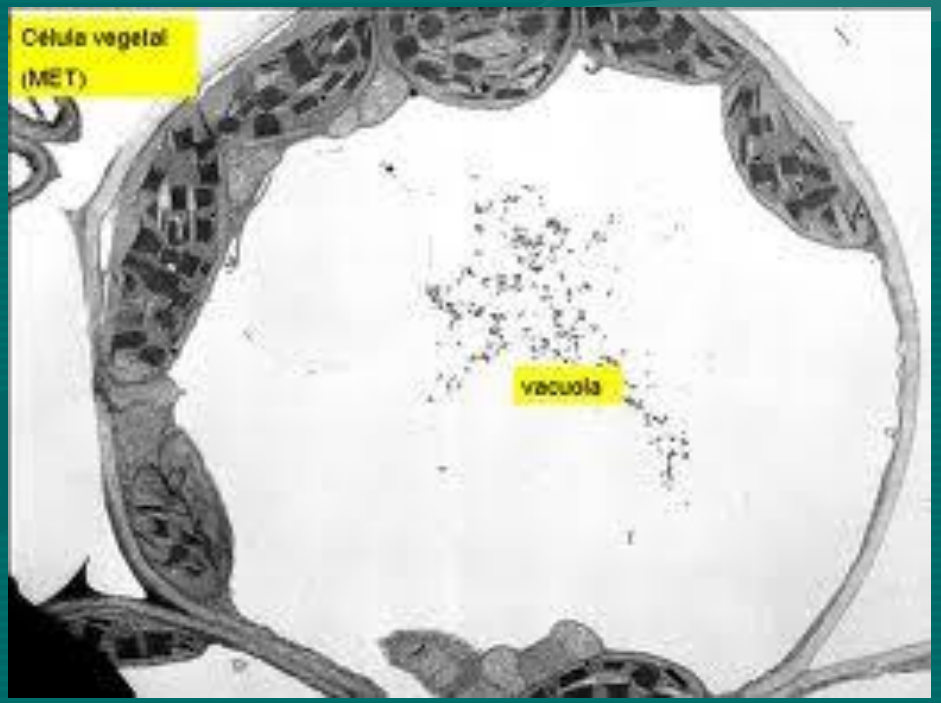




Vacuolas

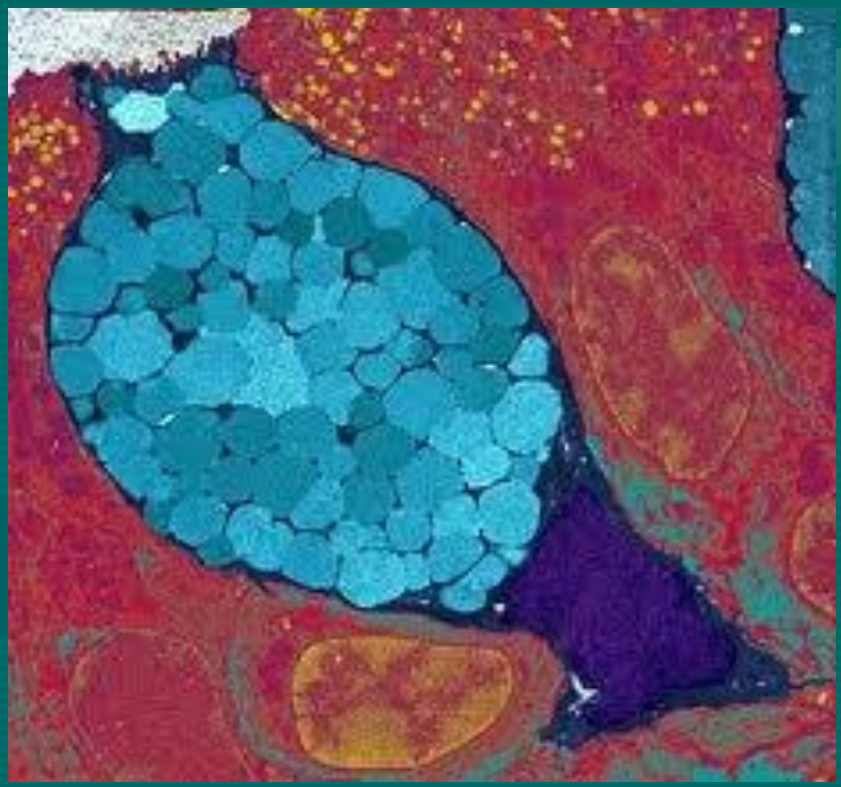
- En células vexetais





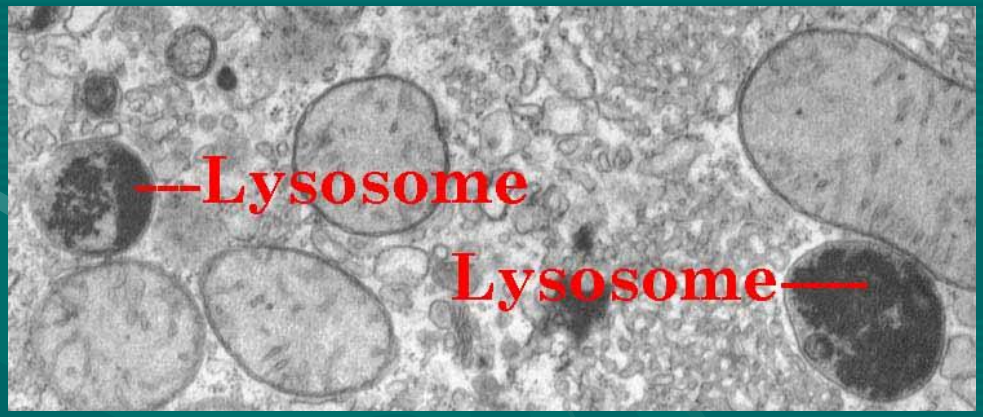
Vacuolas

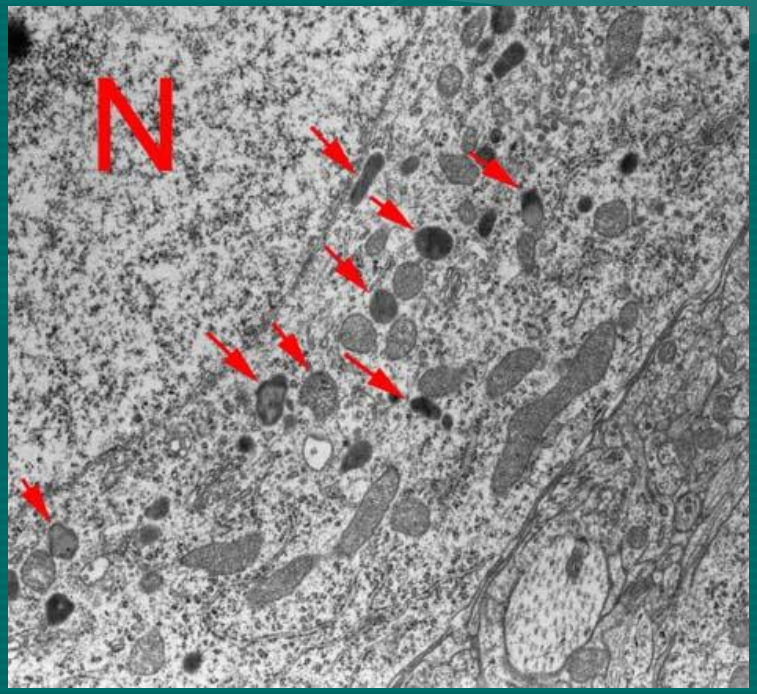
- En células animais



Adipocitos

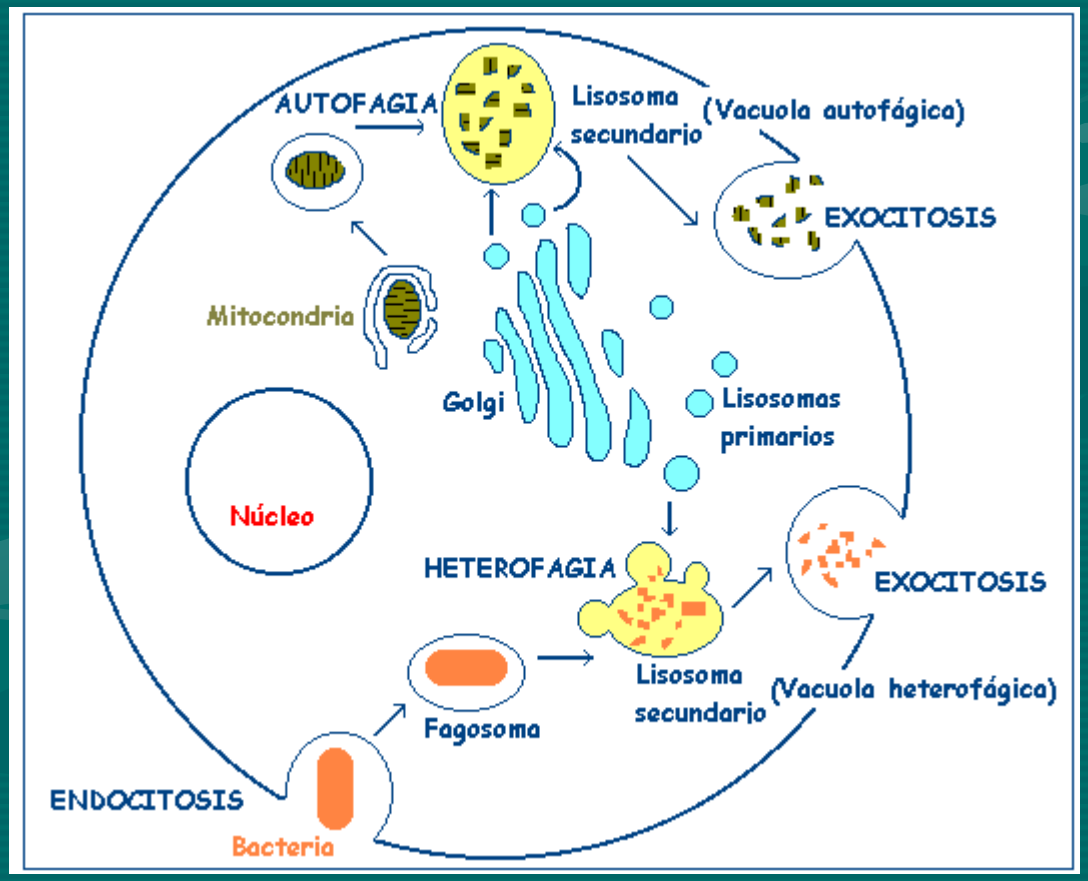
Lisosomas





Lisosomas

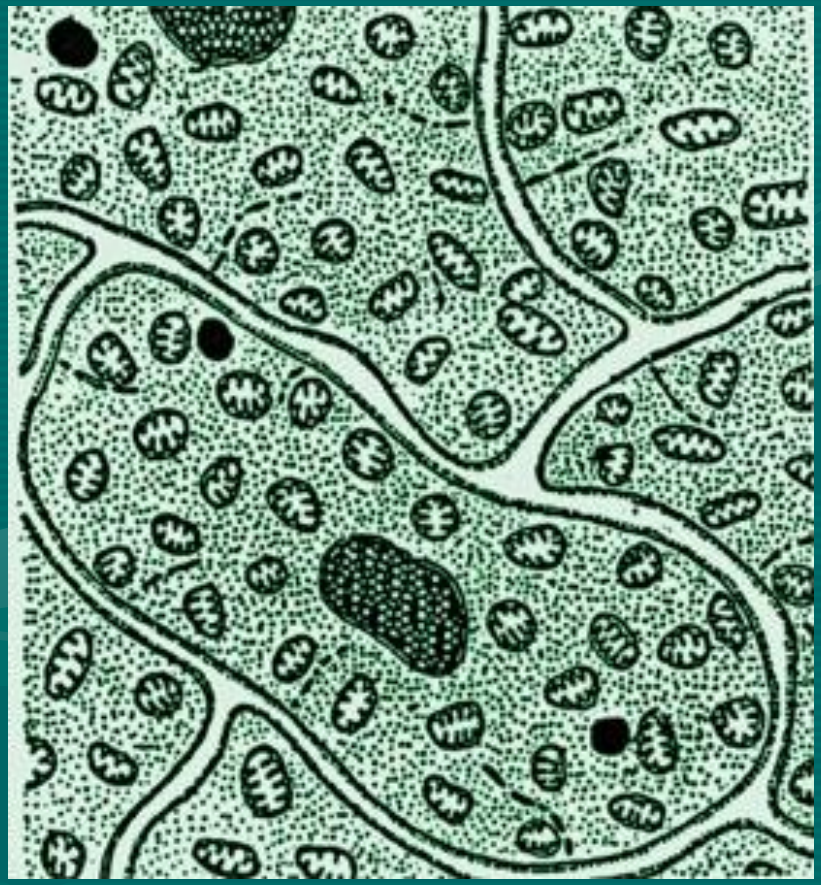
- Dixestión celular



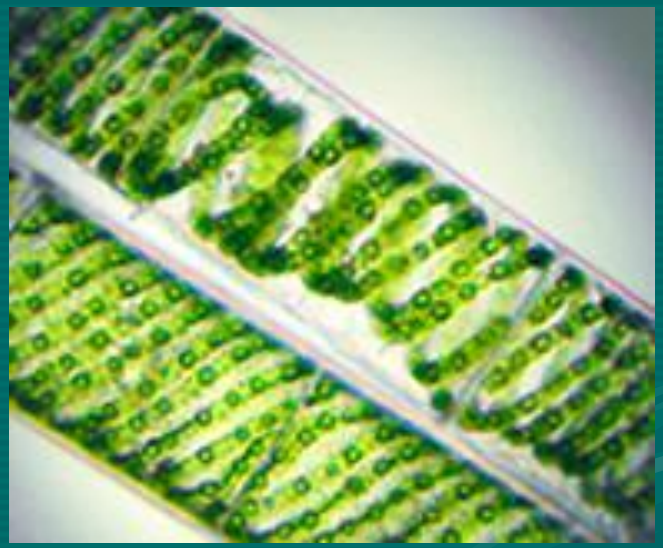
Mitocondrias

Mitocondrias

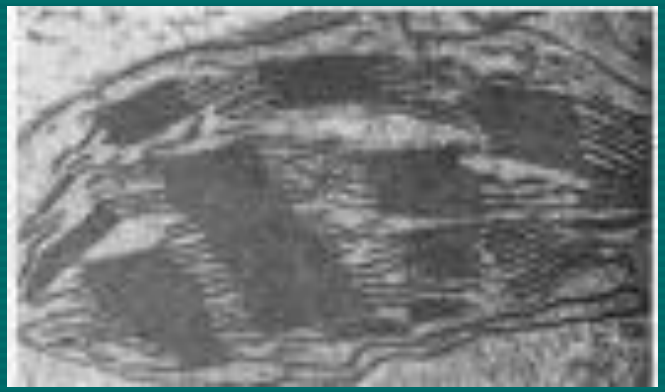
- Célula cardíaca

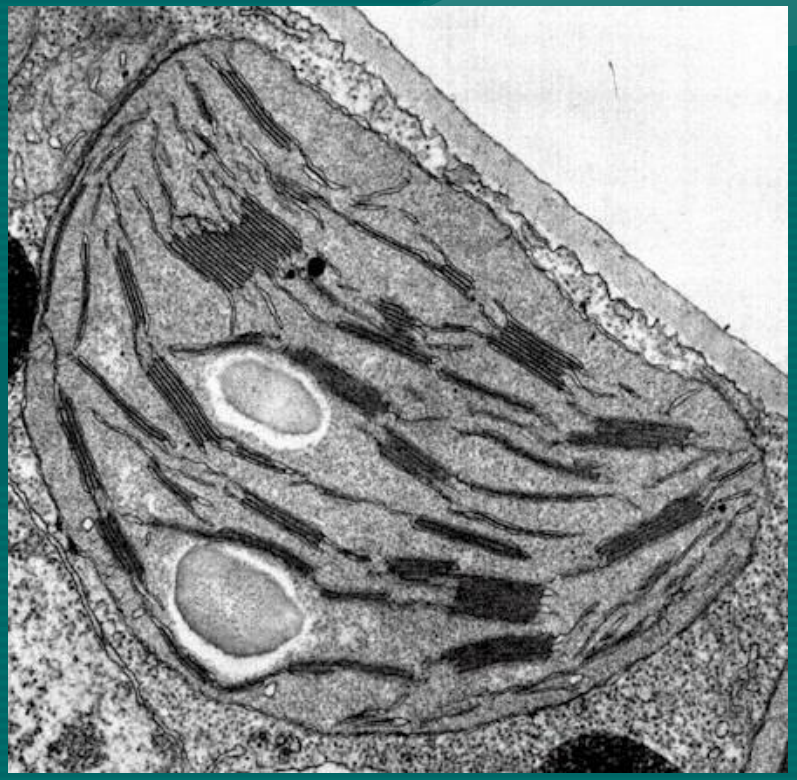


Cloroplastos

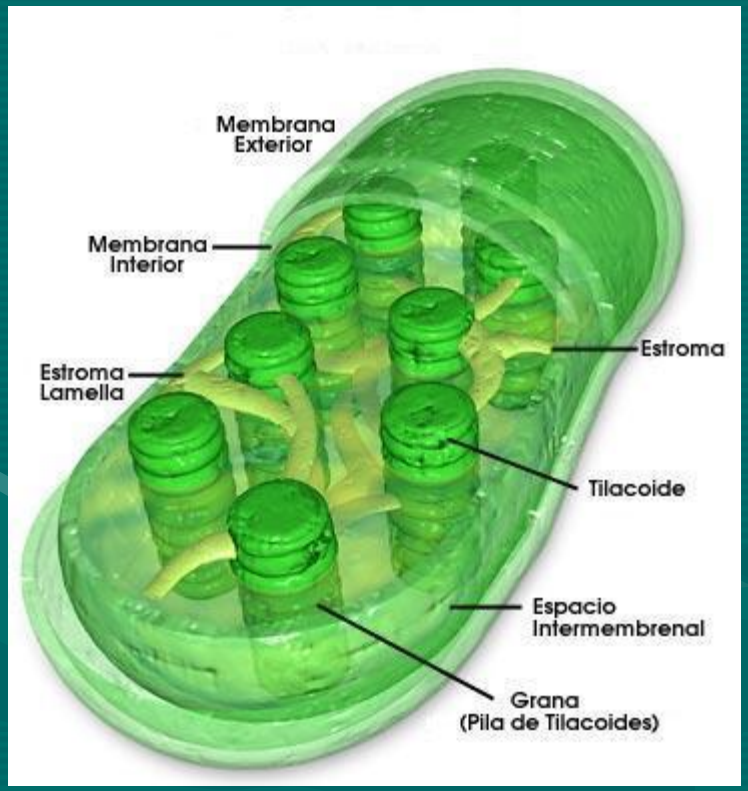


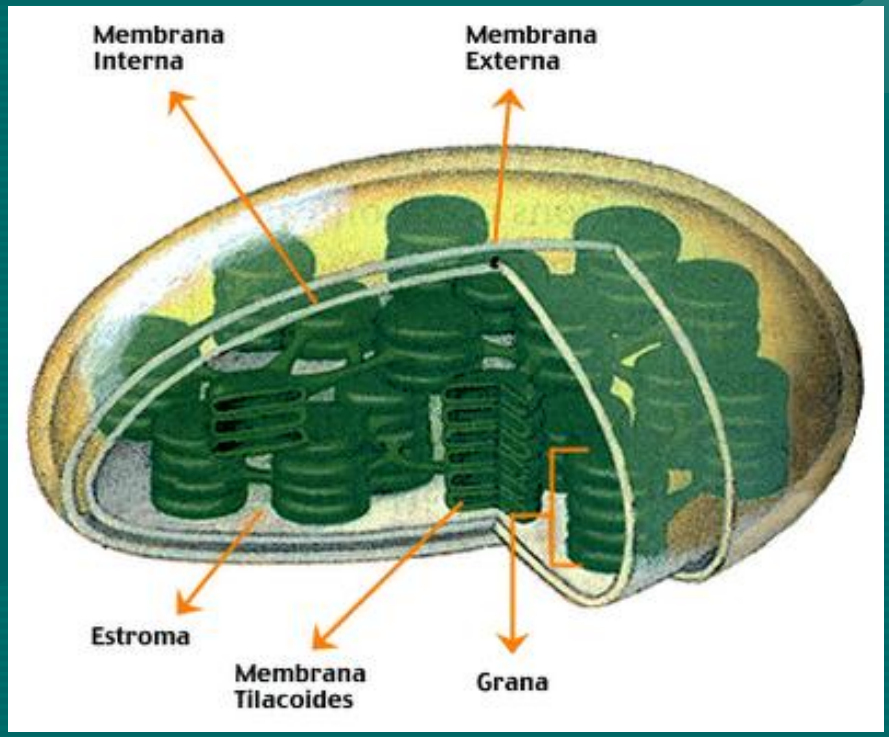
Cloroplastos



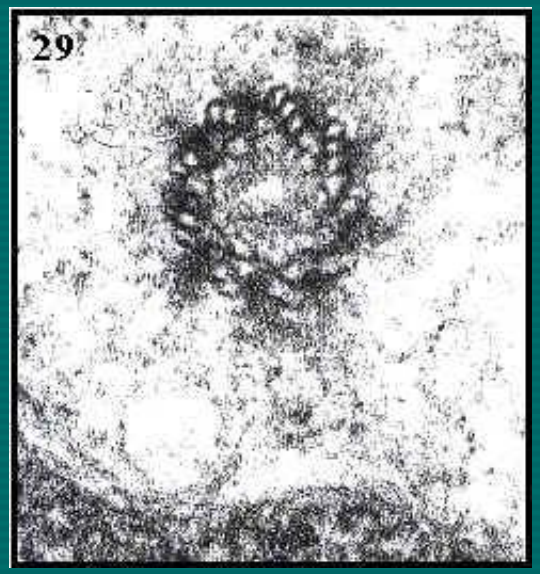


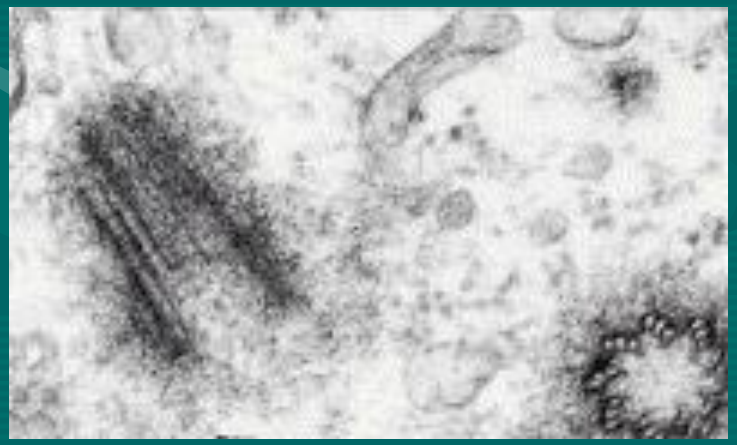
Cloroplastos

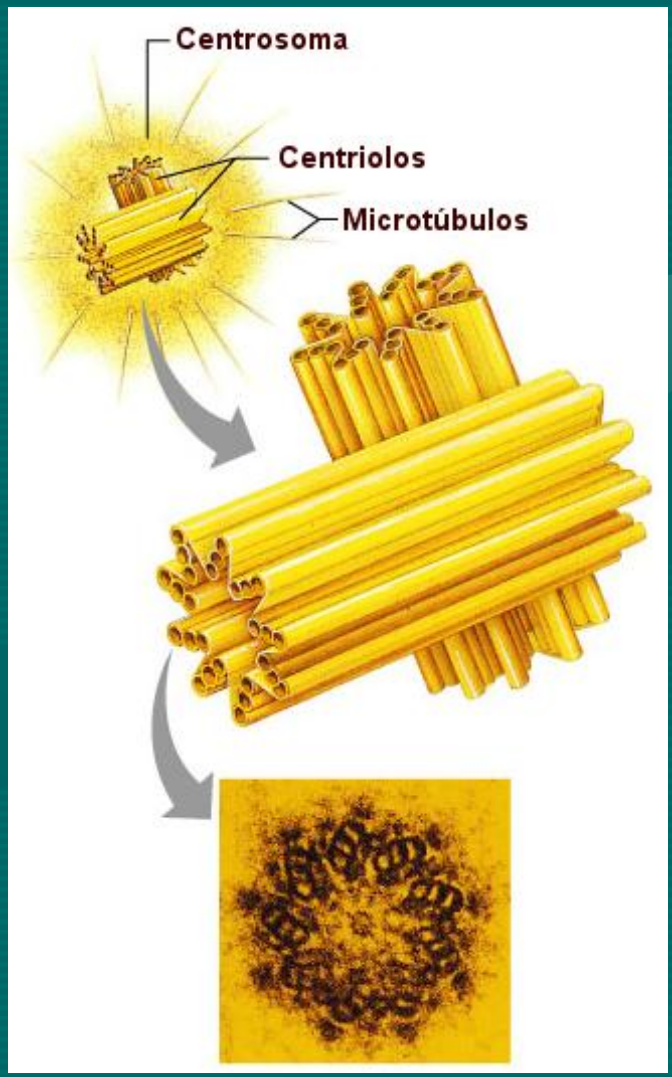




Centriolos

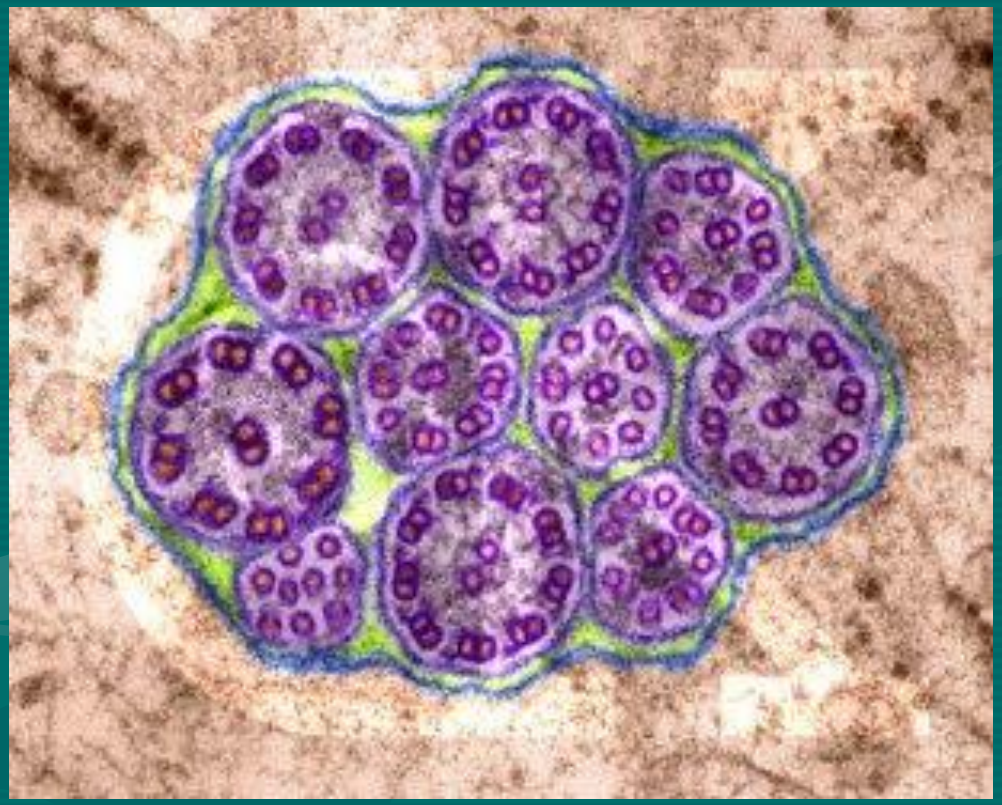




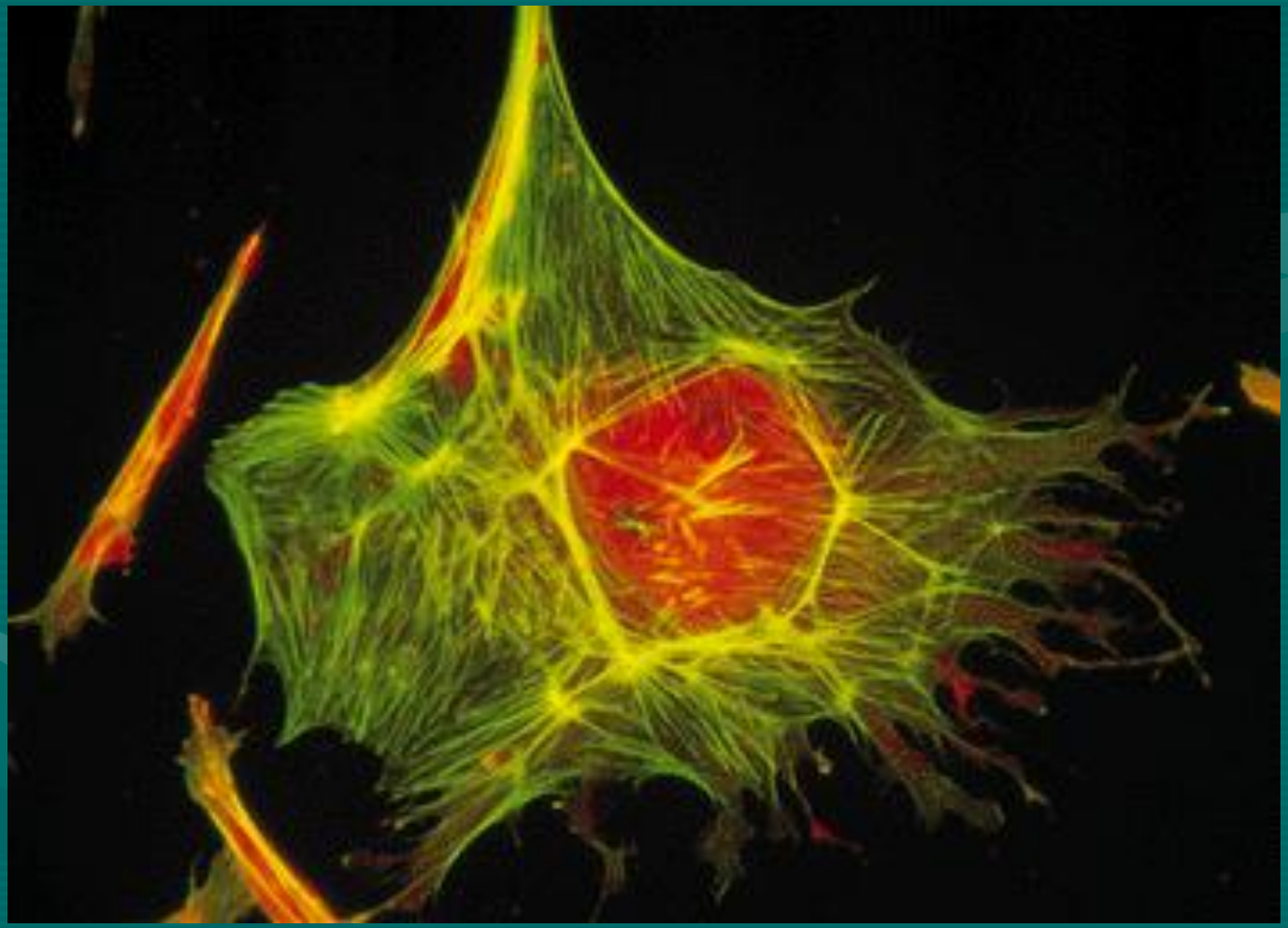


Centríolos

- cilio



Citoesqueleto



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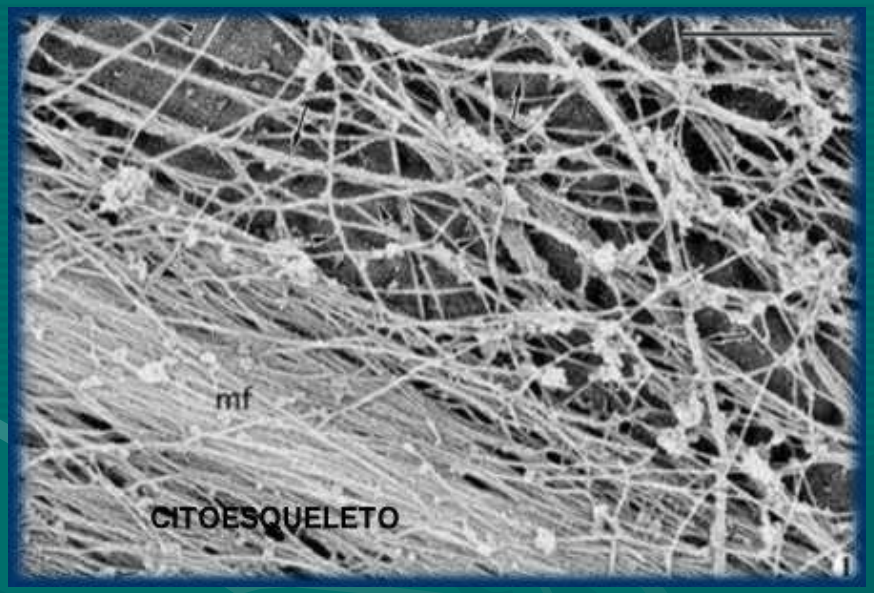

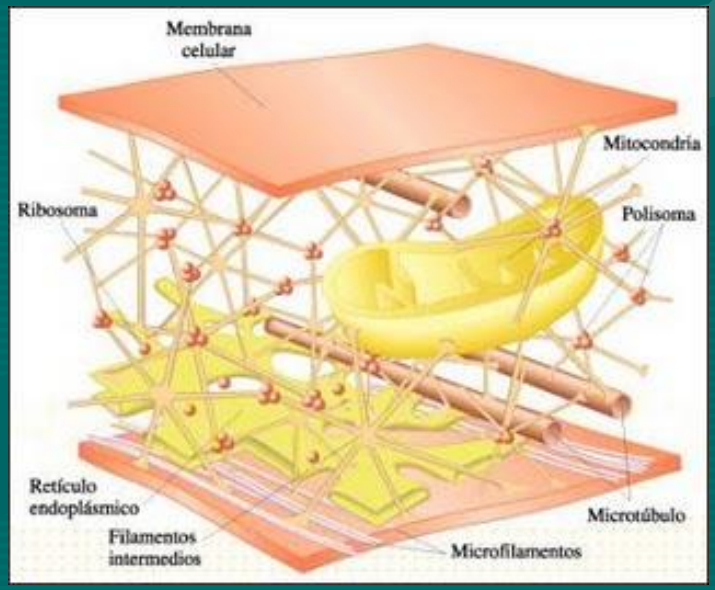

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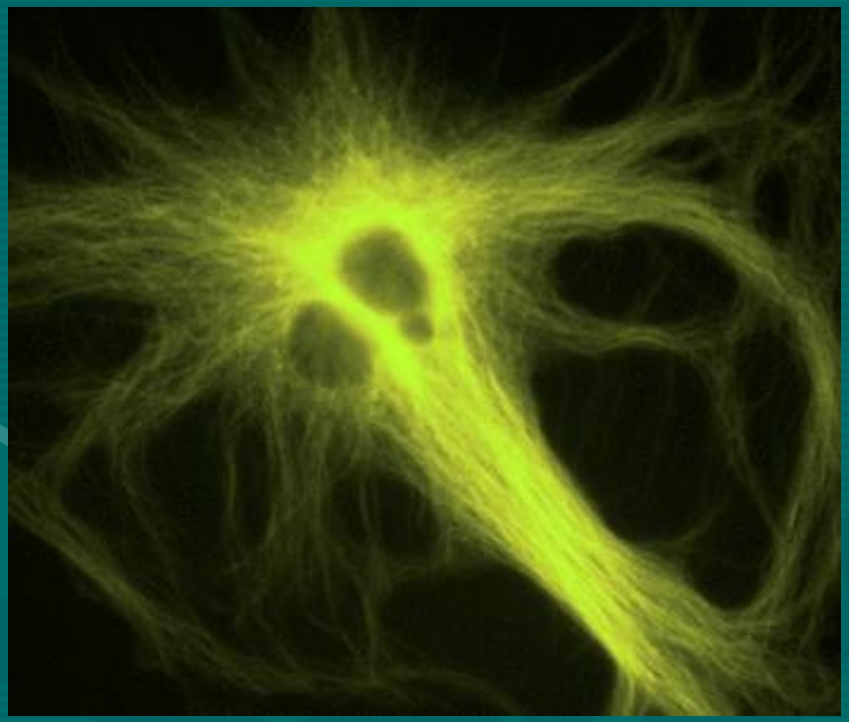
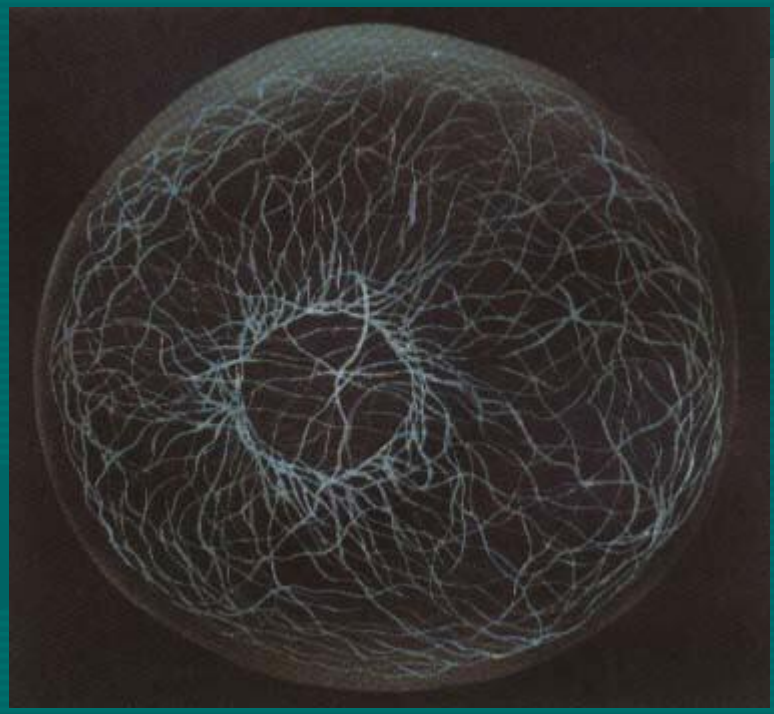
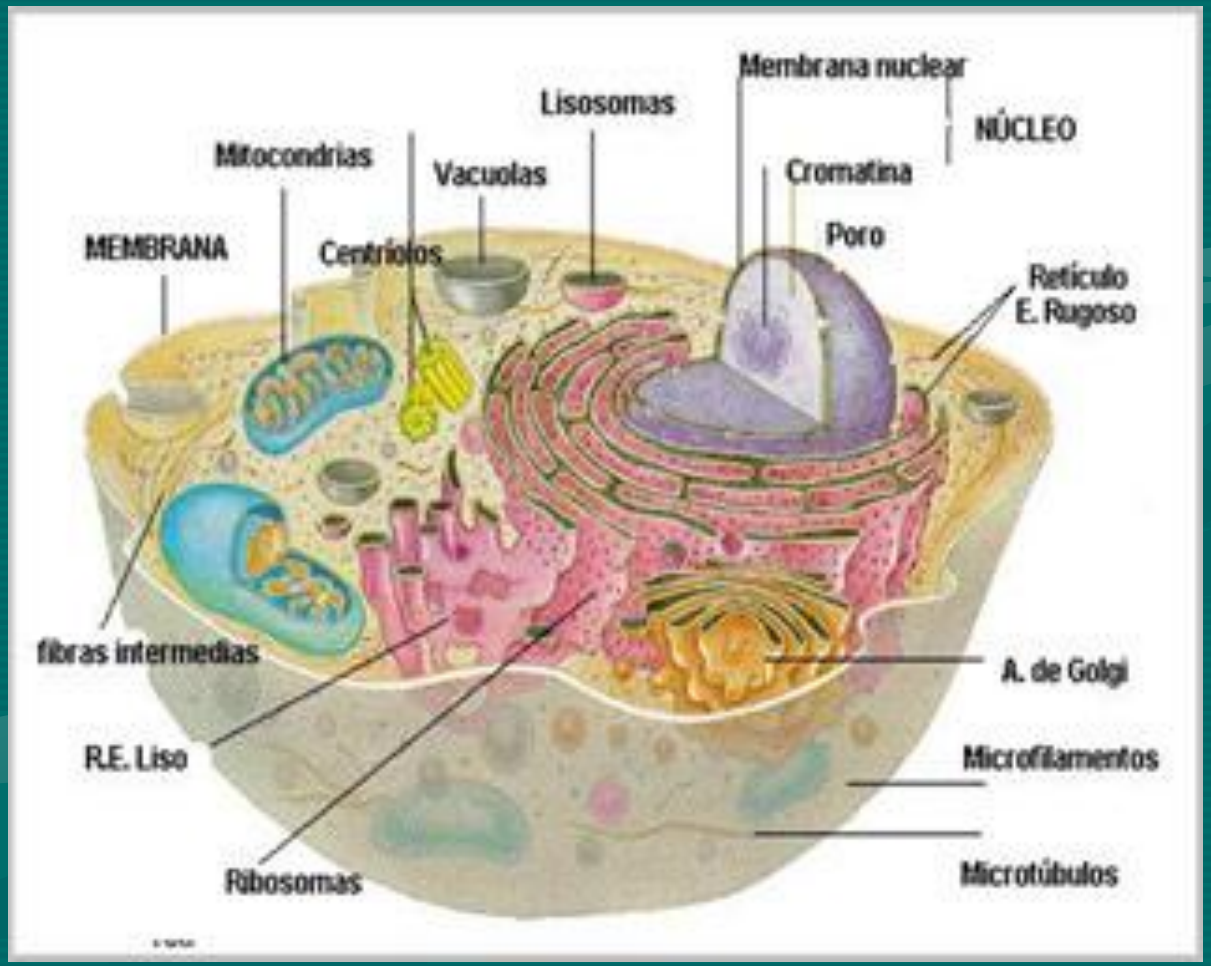
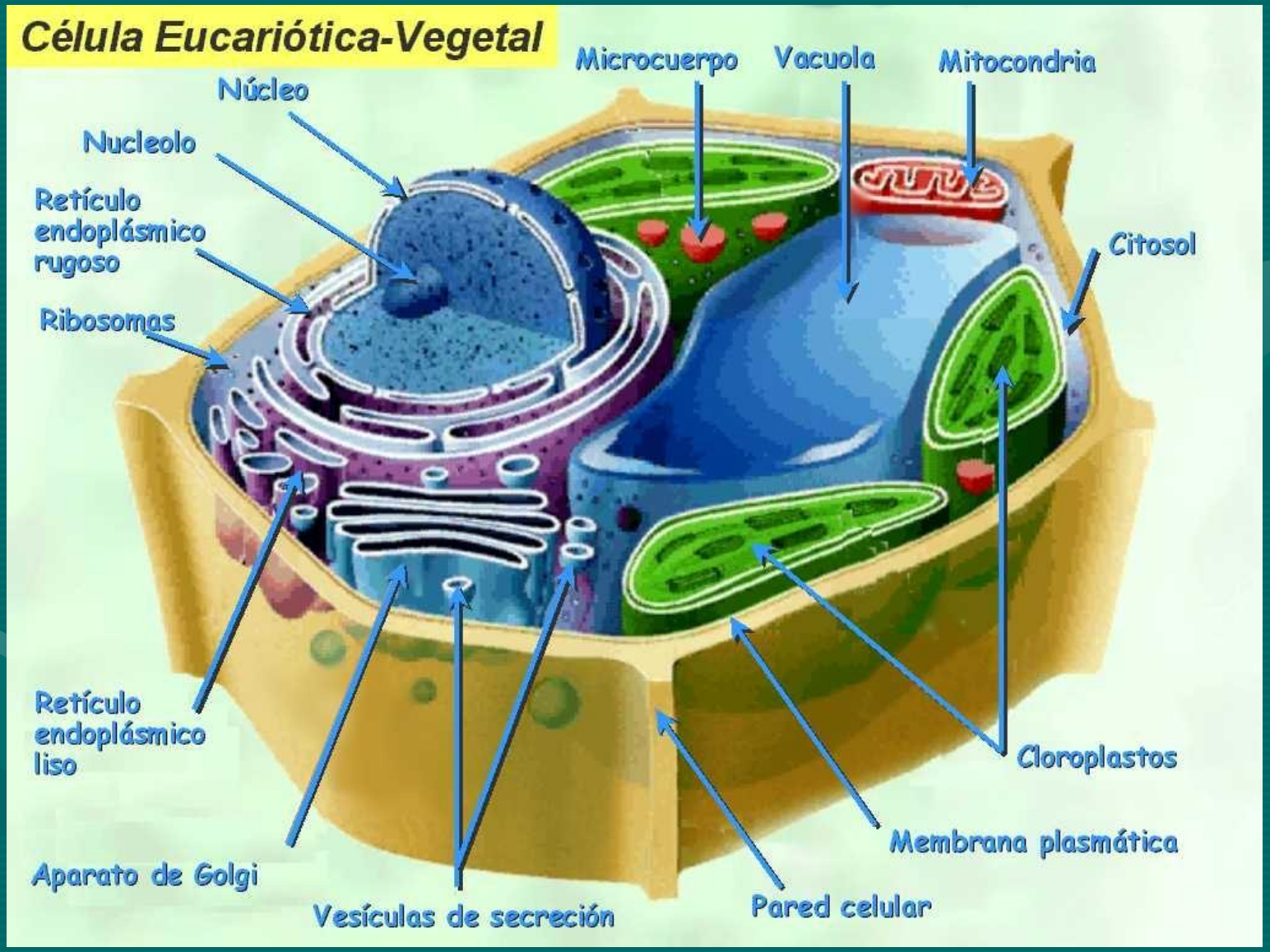




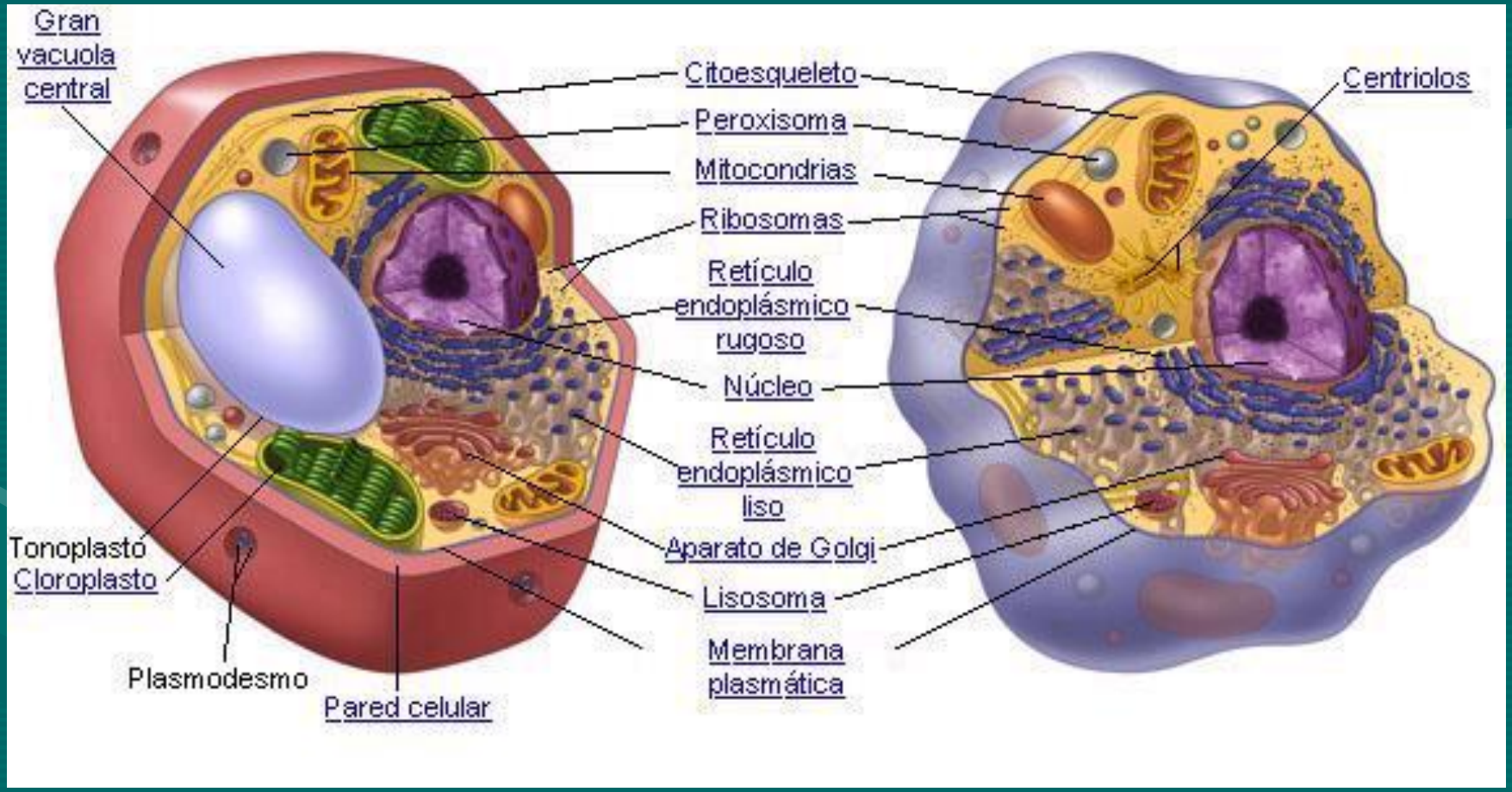
Célula animal



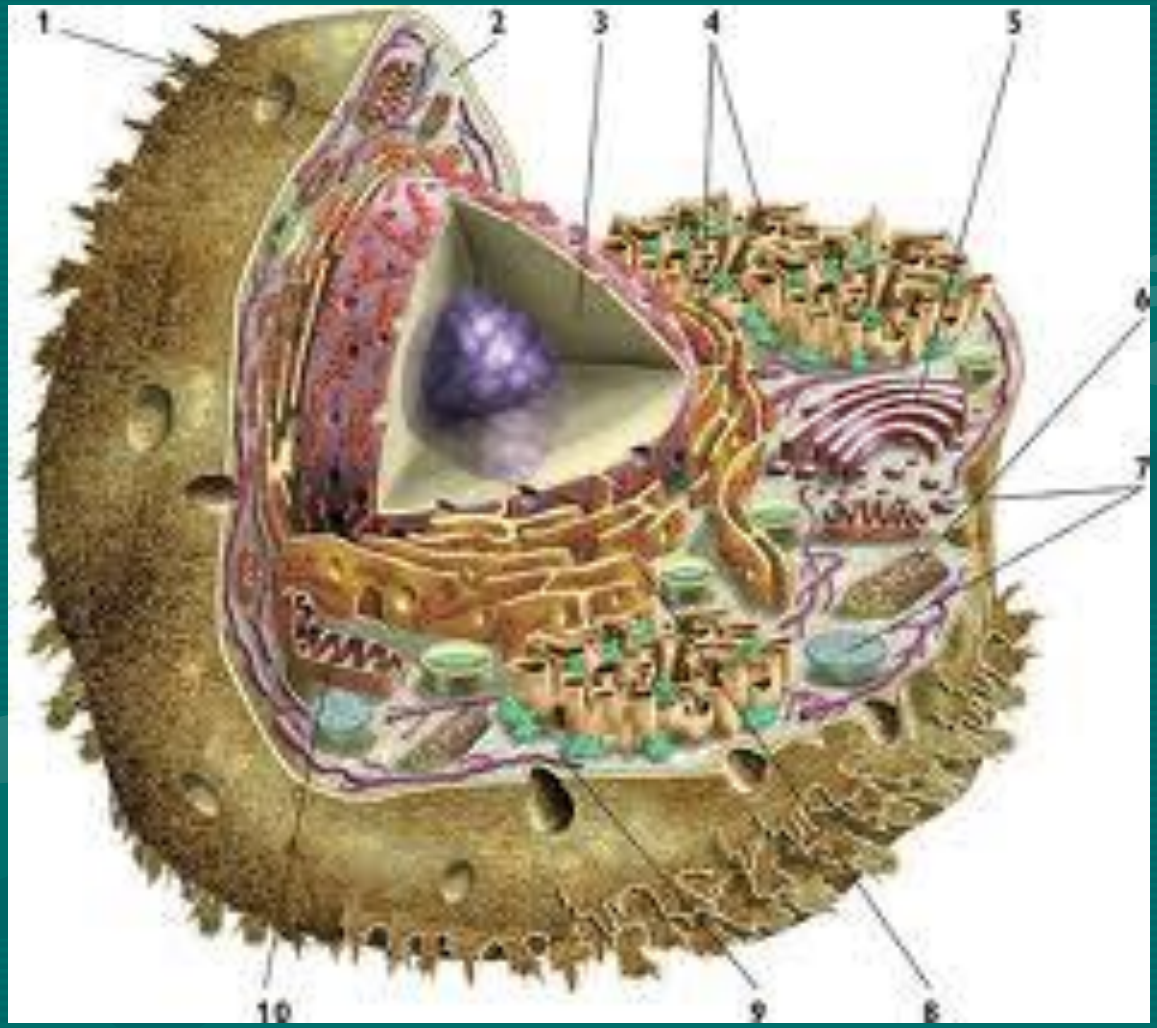
Célula Vexetal



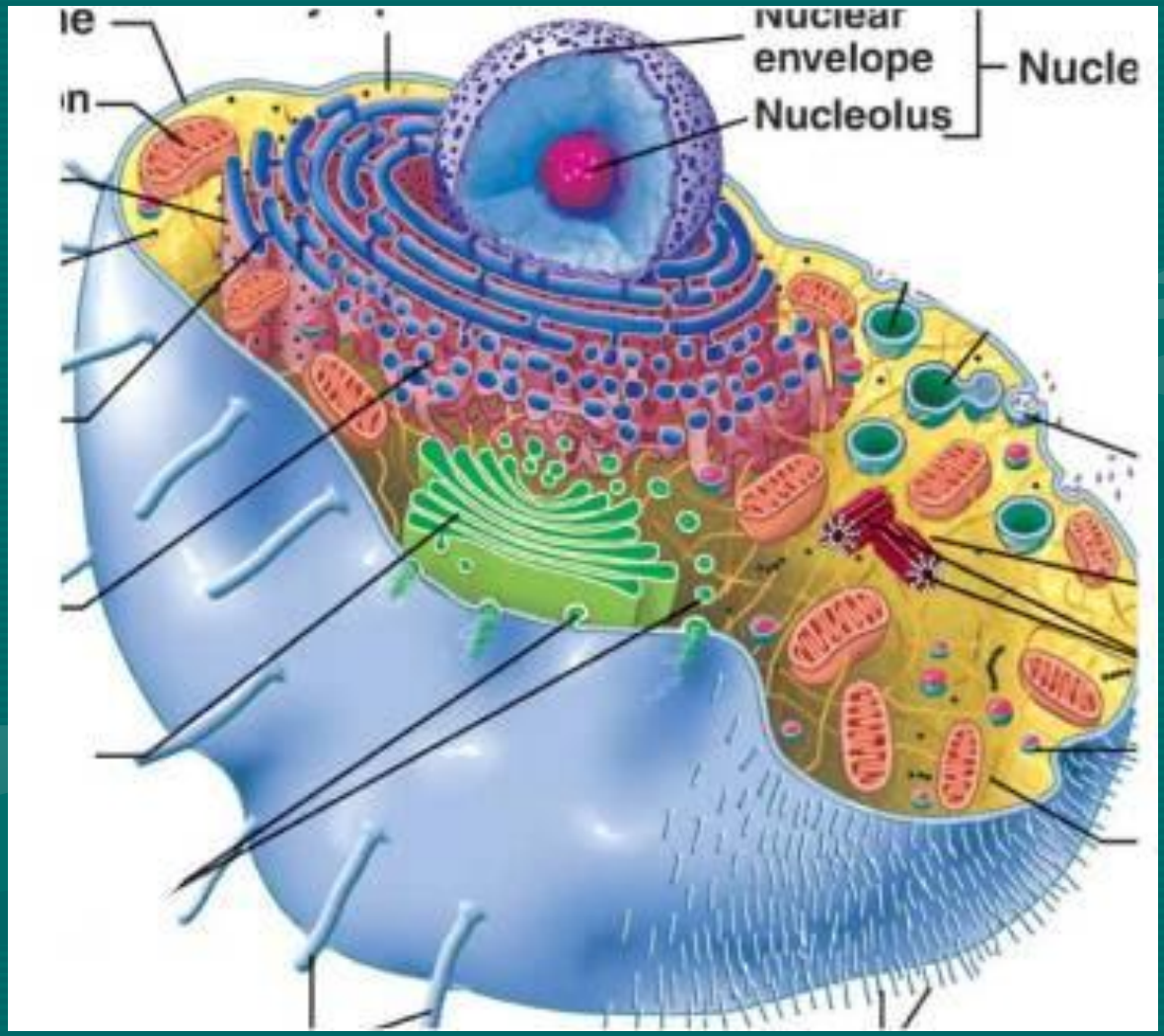
Comparación entre célula animal e célula vexetal



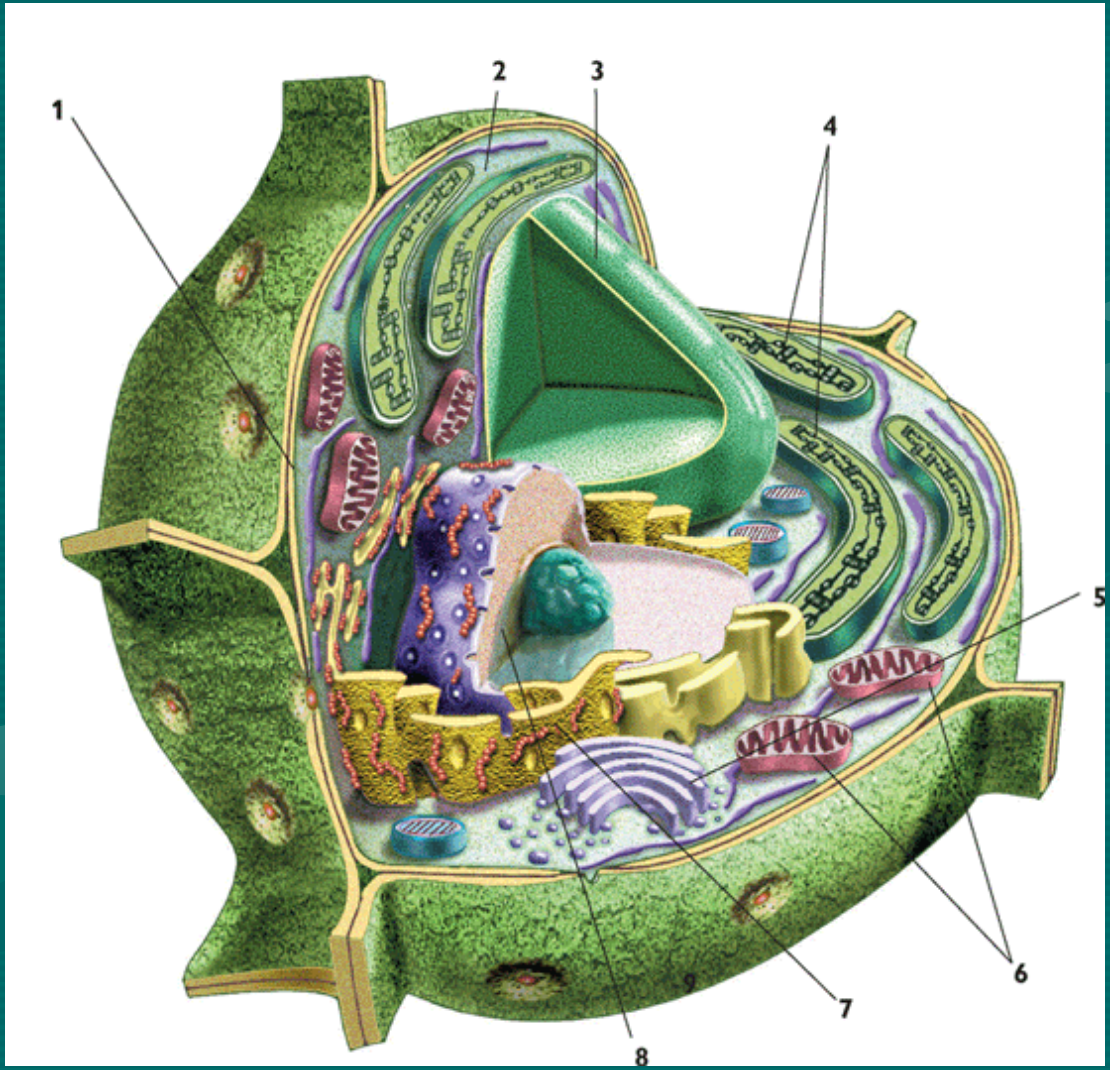
Célula animal



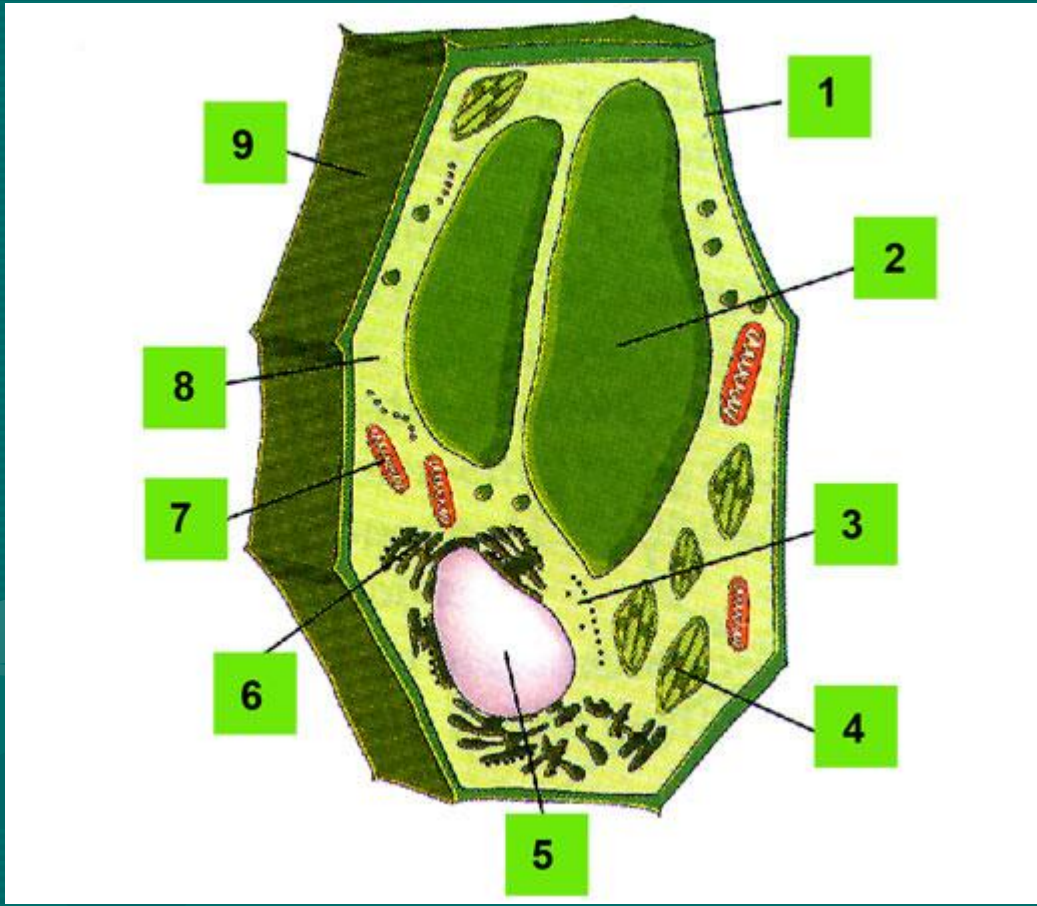
Célula animal



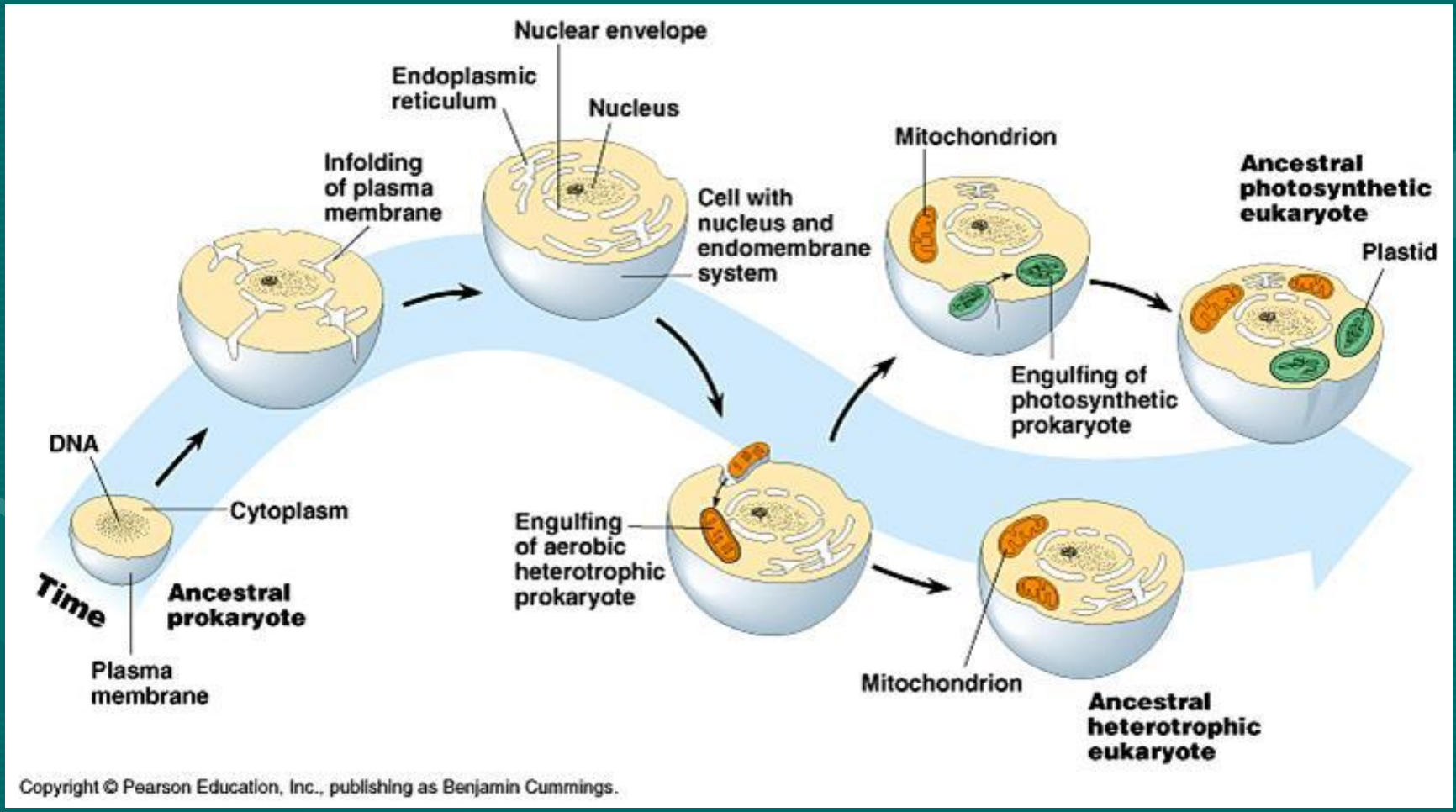
Célula Vexetal



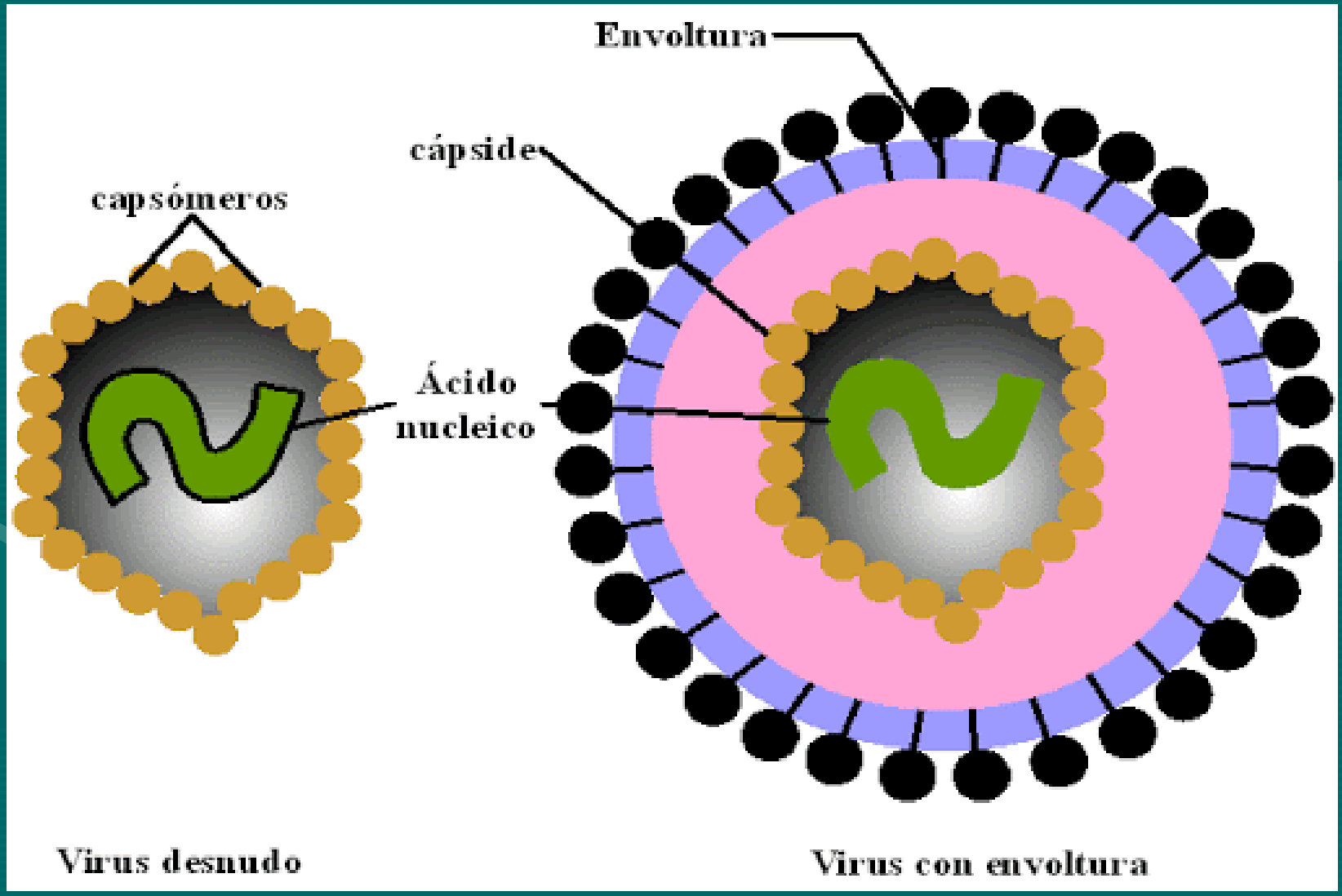
Célula Vexetal



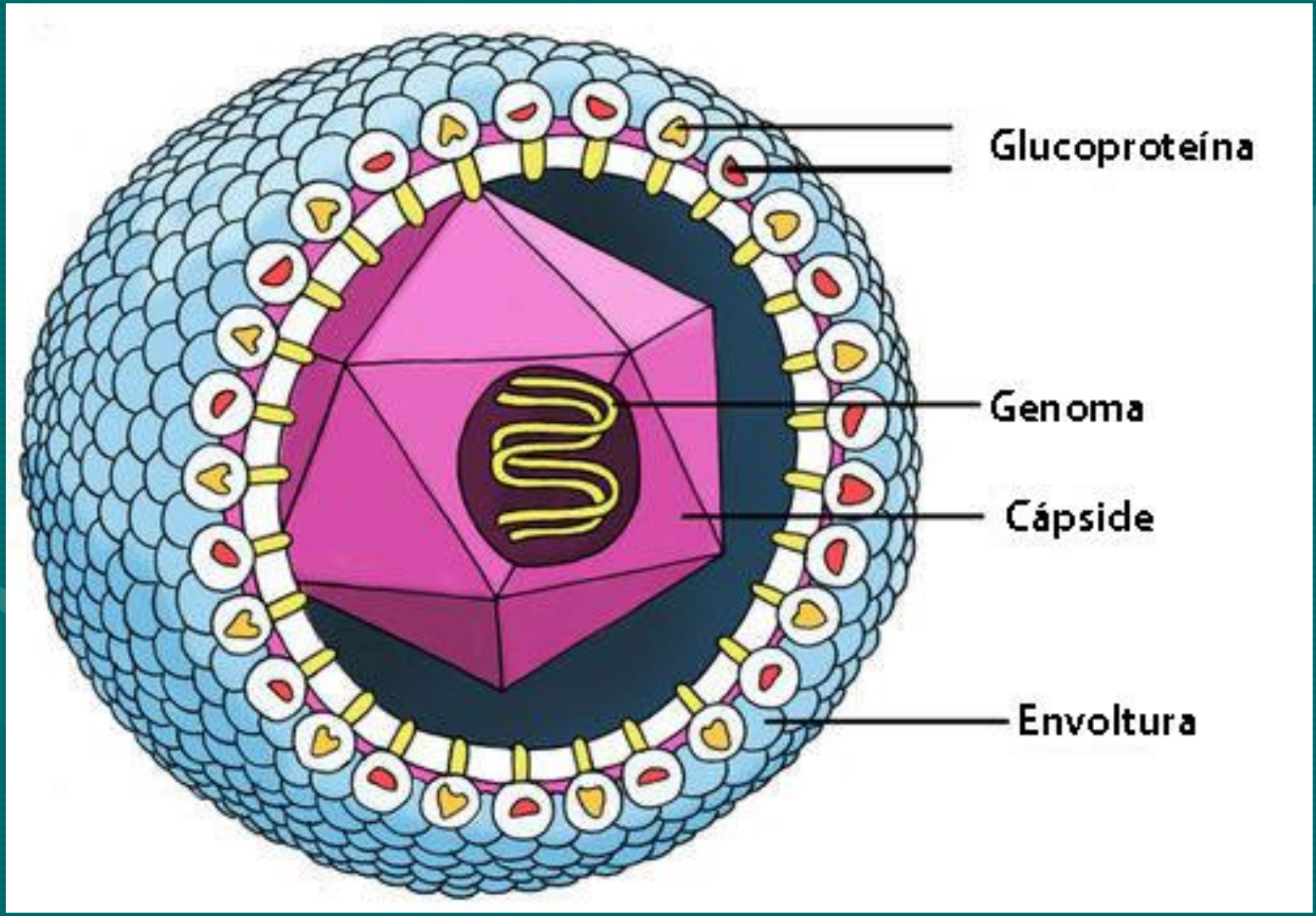
Teoría endosimbionte



E que son os virus?



E que son os virus?



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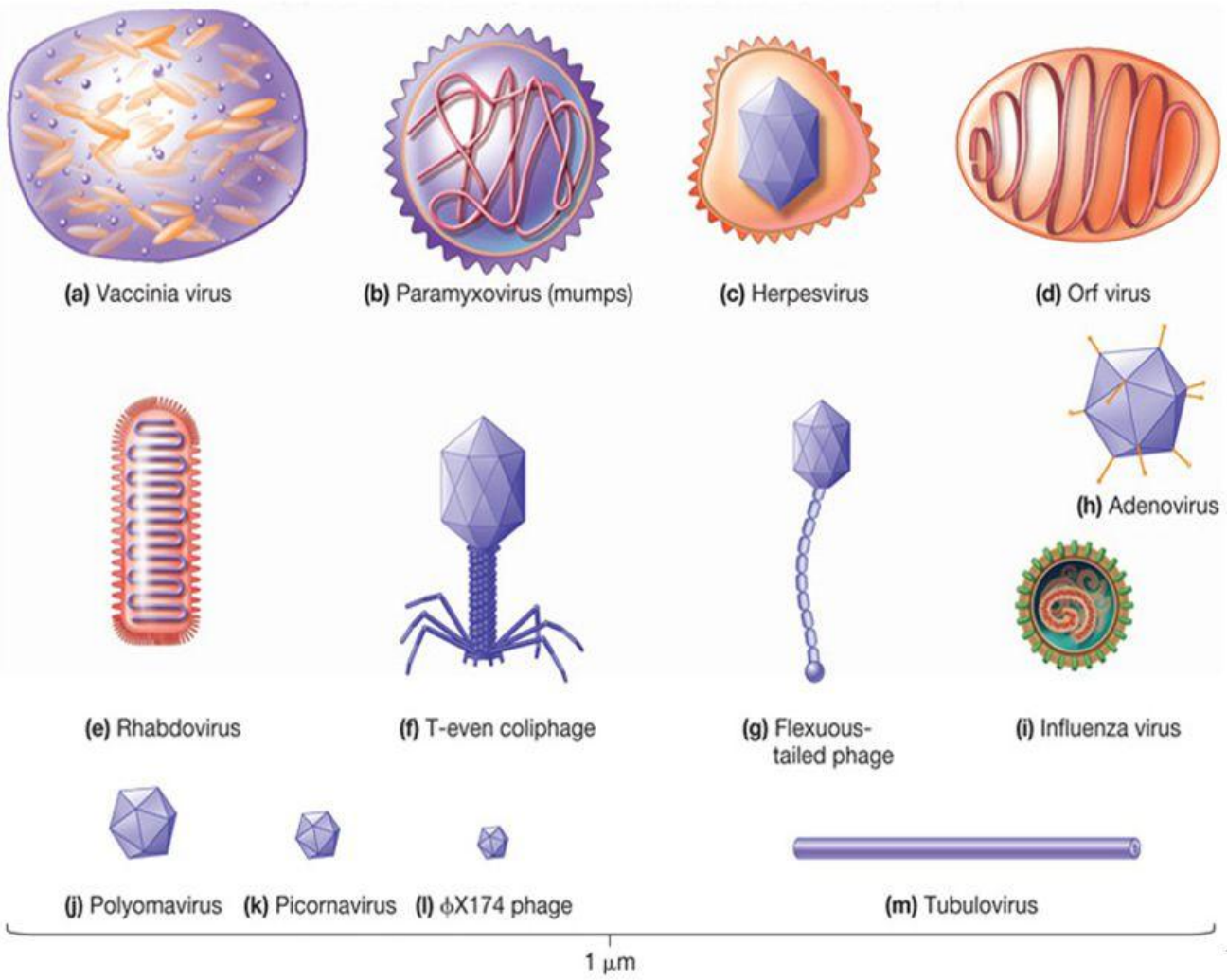
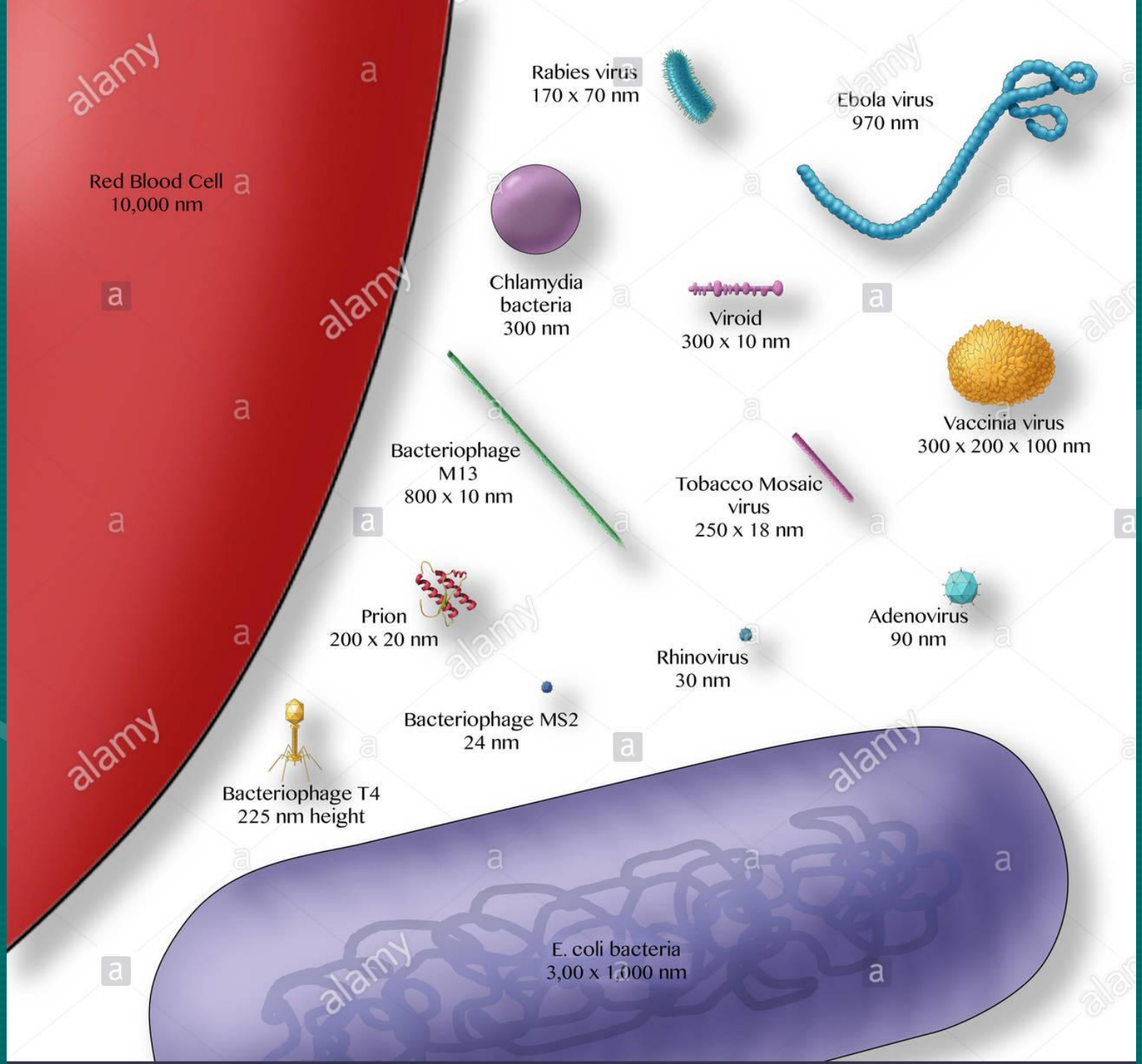
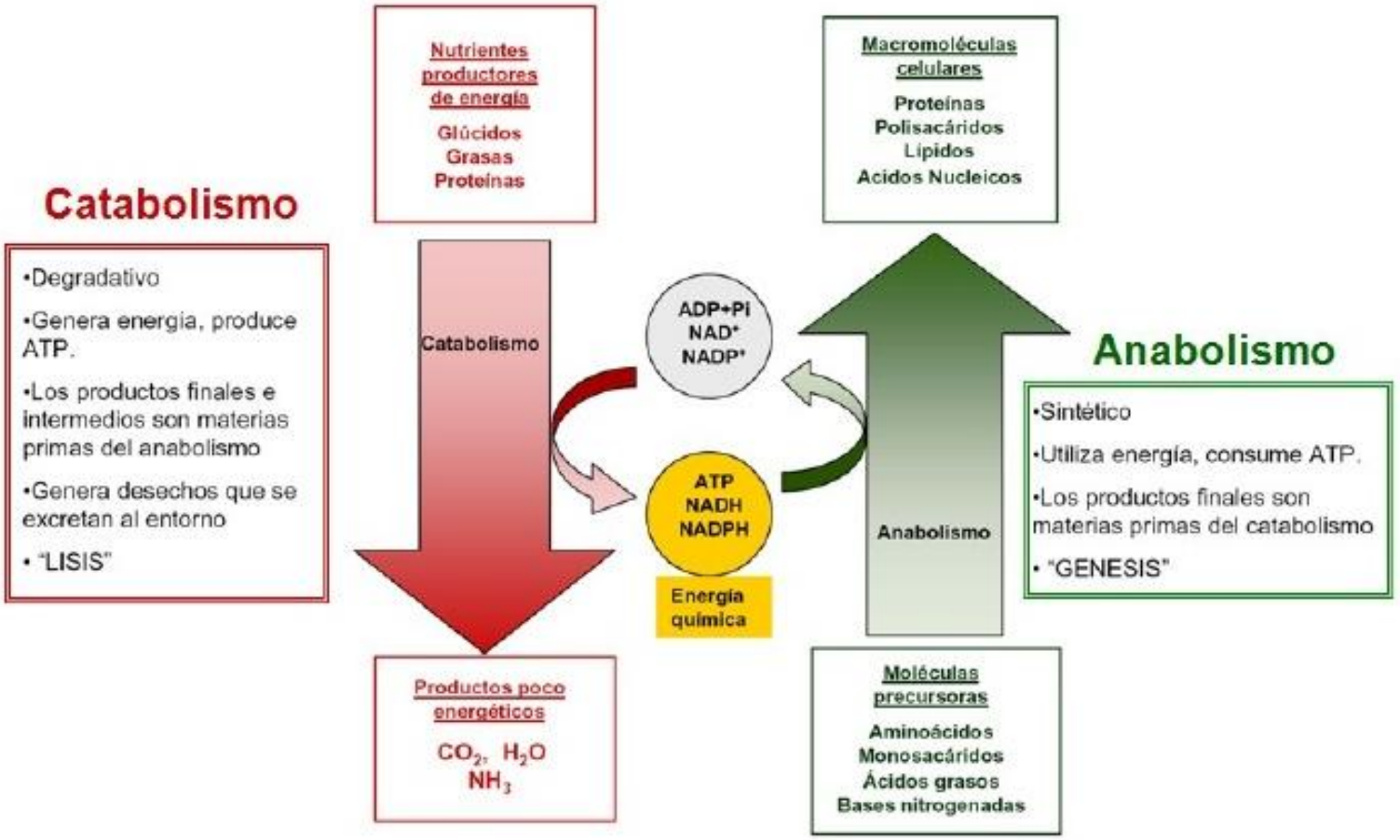
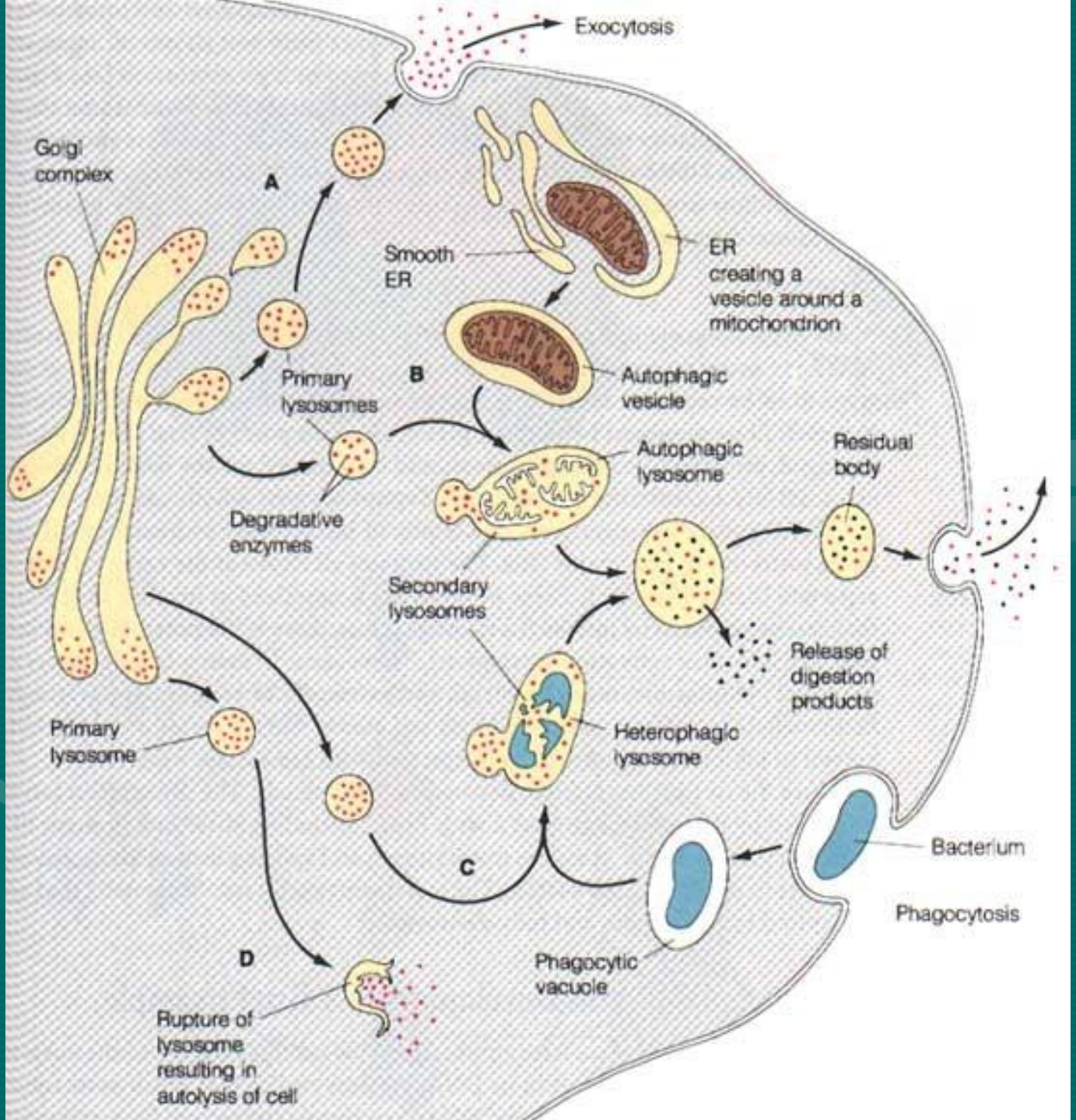



Red Blood Cell
10,000 nm
Rabies virus
170 x 70 nm
Ebola virus
970 nm
Chlamydia
bacteria
300 nm
Viroid
300 x 10 nm
Vaccinia virus
300 x 200 x 100 nm
Bacteriophage
M13
800 x 10 nm
Tobacco Mosaic
virus
250 x 18 nm
Prion
200 x 20 nm
Adenovirus
90 nm
Rhinovirus
30 nm
Bacteriophage MS2
24 nm
Bacteriophage T4
225 nm height
E. coli bacteria
3,00 x 1,000 nm

Metabolismo: anabolismo e catabolismo




Exocytosis
Golgi complex
A
Smooth ER
ER creating a vesicle around a mitochondrion
Primary lysosomes
B
Autophagic vesicle
Autophagic lysosome
Residual body
Degradative enzymes
Secondary lysosomes
Release of digestion products
Primary lysosome
Heterophagic lysosome
Bacterium
C
Phagocytosis
Phagocytic vacuole
D
Rupture of lysosome resulting in autolysis of cell

O CICLO CELULAR

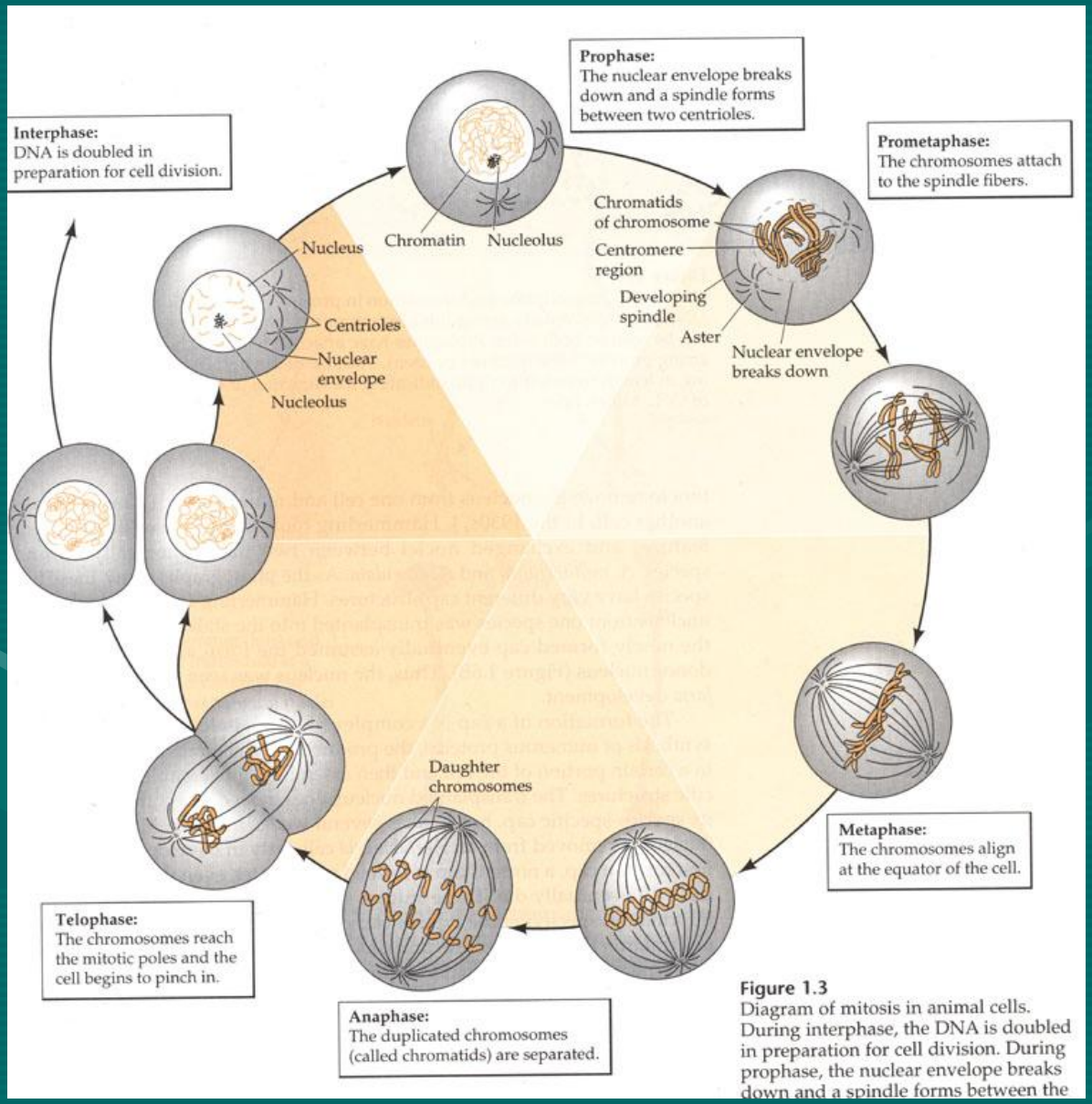
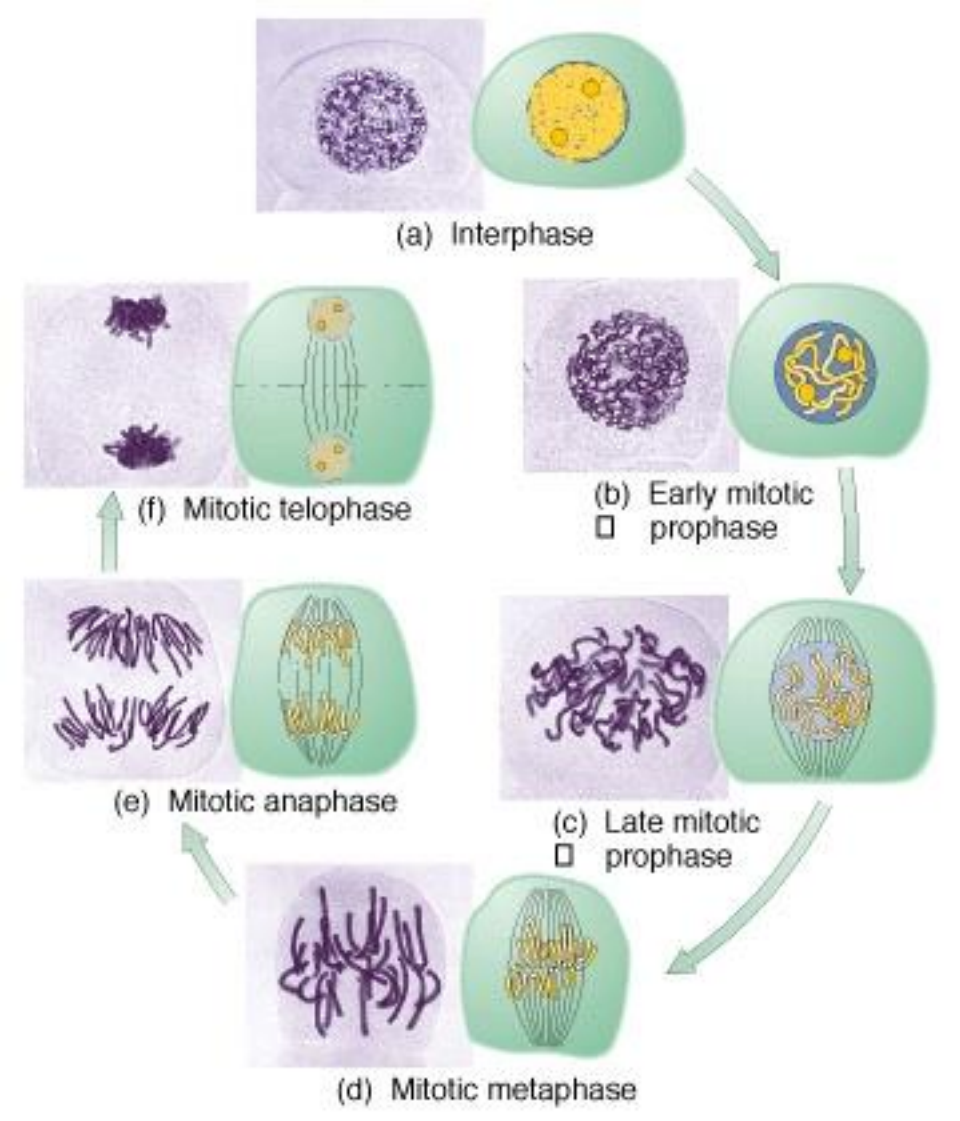


Figure 1.3
Diagram of mitosis in animal cells. During interphase, the DNA is doubled in preparation for cell division. During prophase, the nuclear envelope breaks down and a spindle forms between the

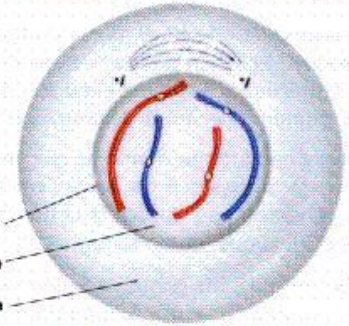
Cando a célula alcanza un certo tamaño, debe dete-lo seu crecemento ou ben dividirse, dando lugar a dúas células fillas

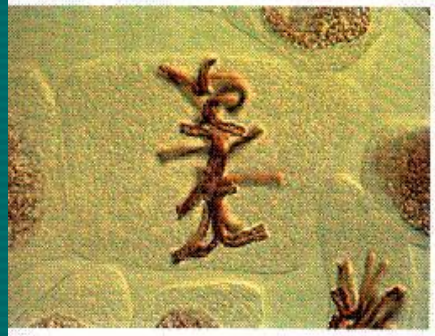
MITOSE


(a) Interphase
(b) Early mitotic prophase
(c) Late mitotic prophase
(d) Mitotic metaphase
(e) Mitotic anaphase
(f) Mitotic telophase

PROFASE

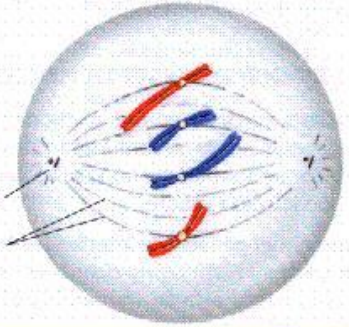
La cromatina se condensa y los cromosomas se hacen visibles; están formados por dos cromátidas unidas por el centrómero. Los centriolos se van separando y se forman los microtúbulos del huso, que permiten el movimiento y el reparto de los cromosomas durante la mitosis.

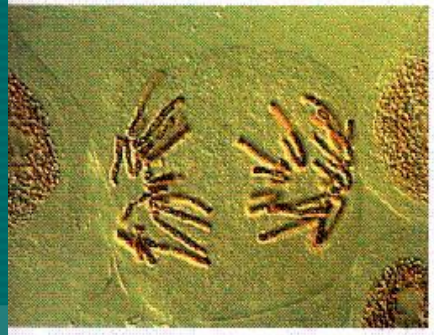




METAFASE

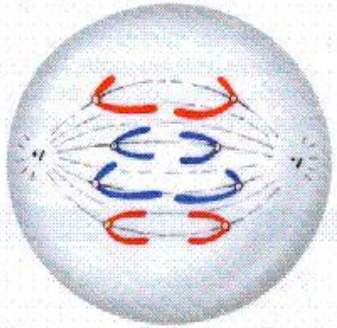
La membrana nuclear desaparece y los cromosomas se disponen en el centro del huso. Es la fase en la que mejor se distinguen las características de los cromosomas.

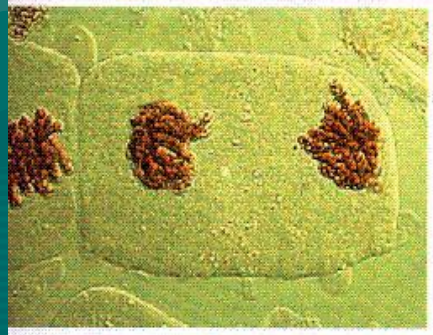




ANAFASE

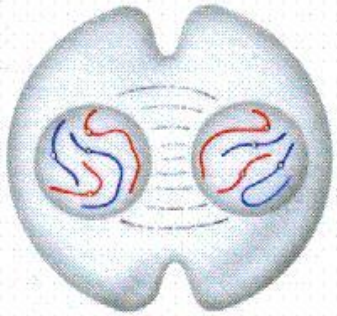
El centrómero de cada cromosoma se divide, los microtúbulos se contraen y arrastran a las cromátidas hacia los dos polos de la célula.

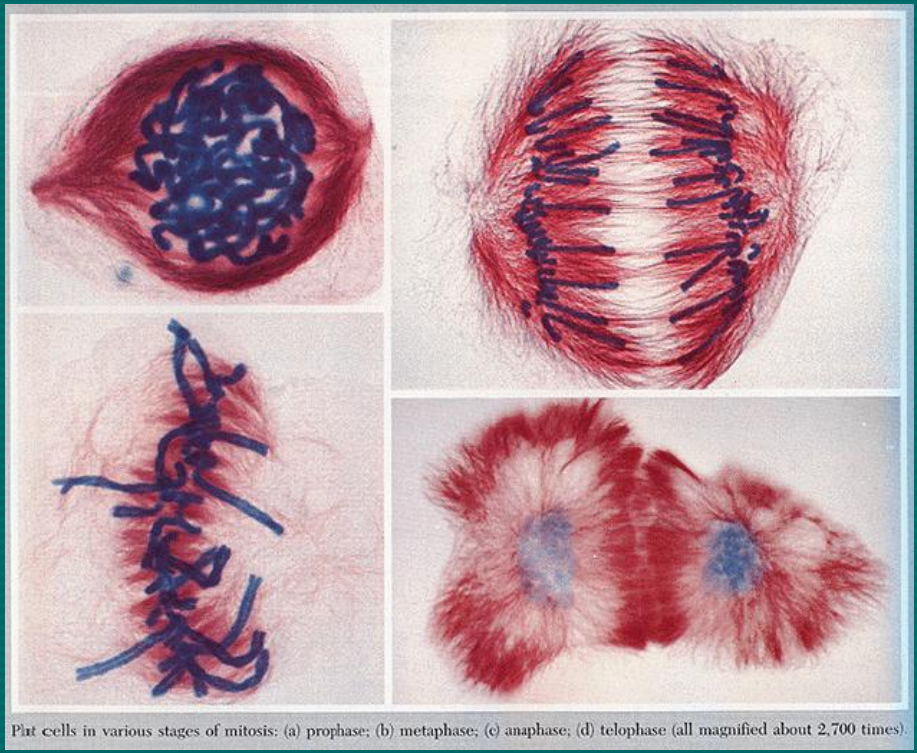




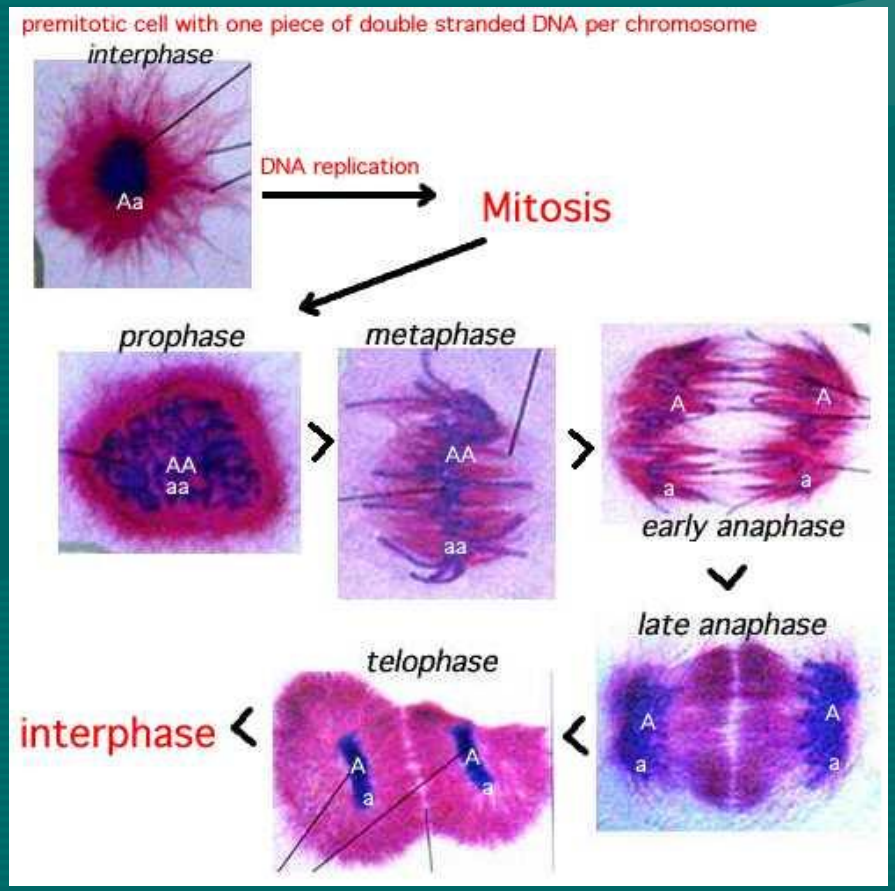
TELOFASE

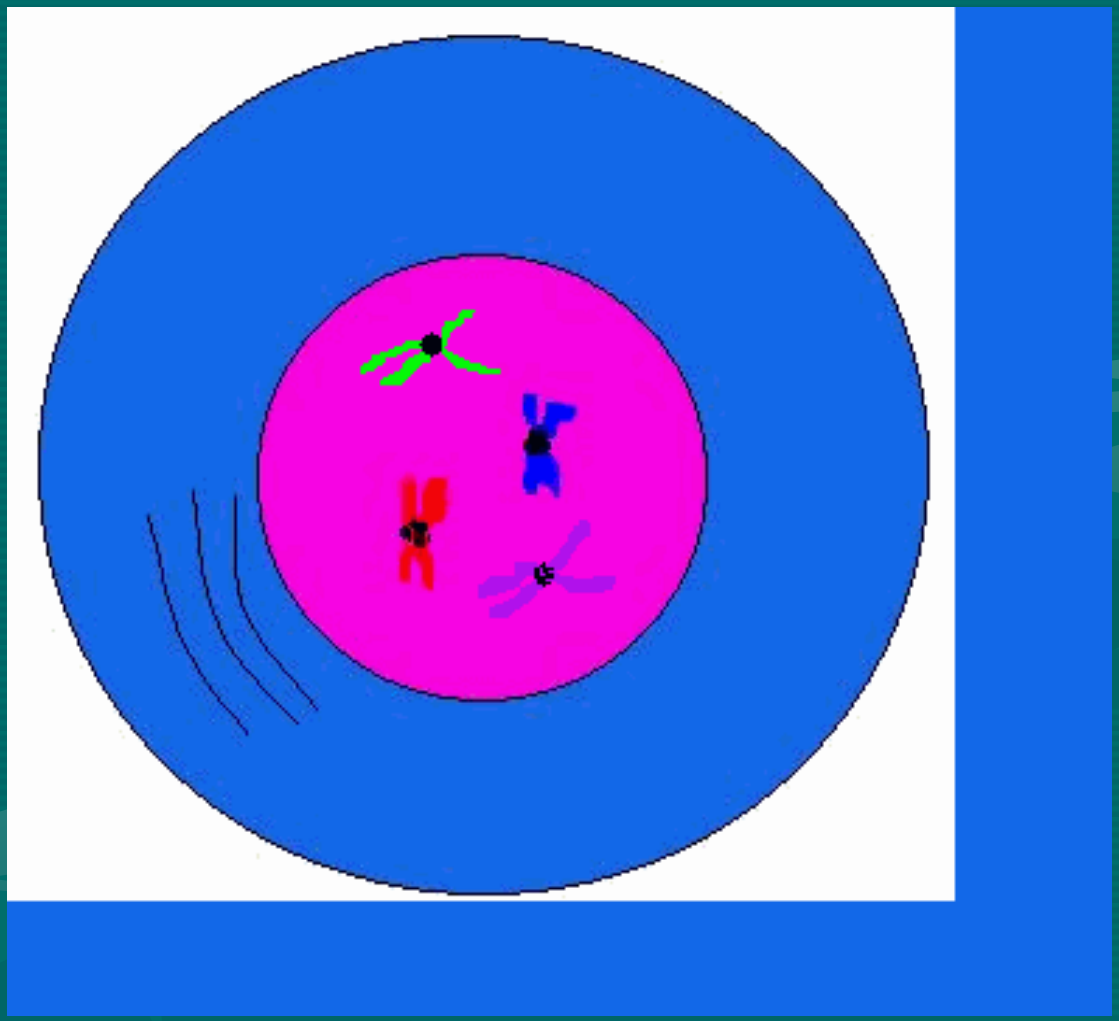
Las cromátidas se separan completamente, poco a poco dejan de ser visibles, se forma la membrana nuclear y desaparece el huso. Al final de esta etapa, el ADN se descondensa y las cromátidas dejan de ser visibles.

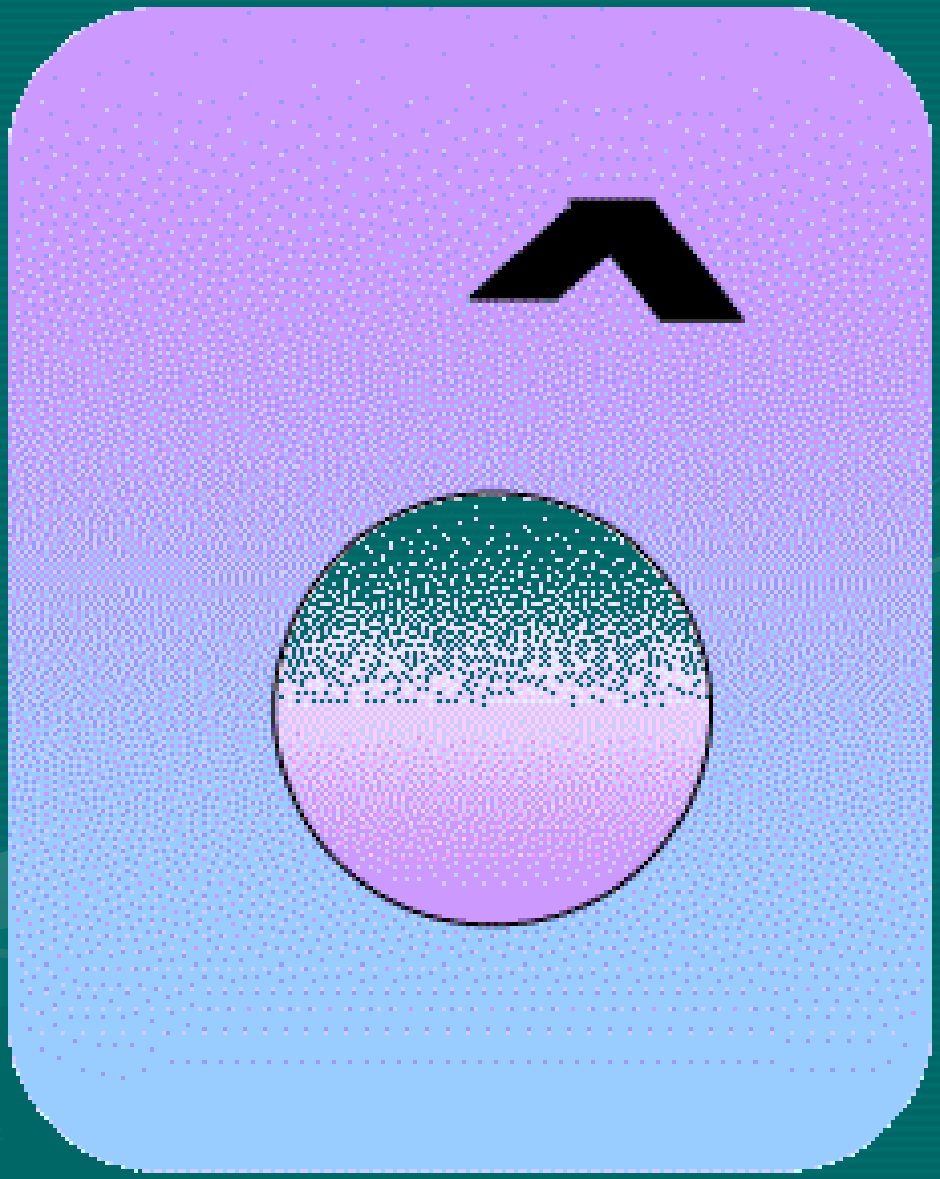


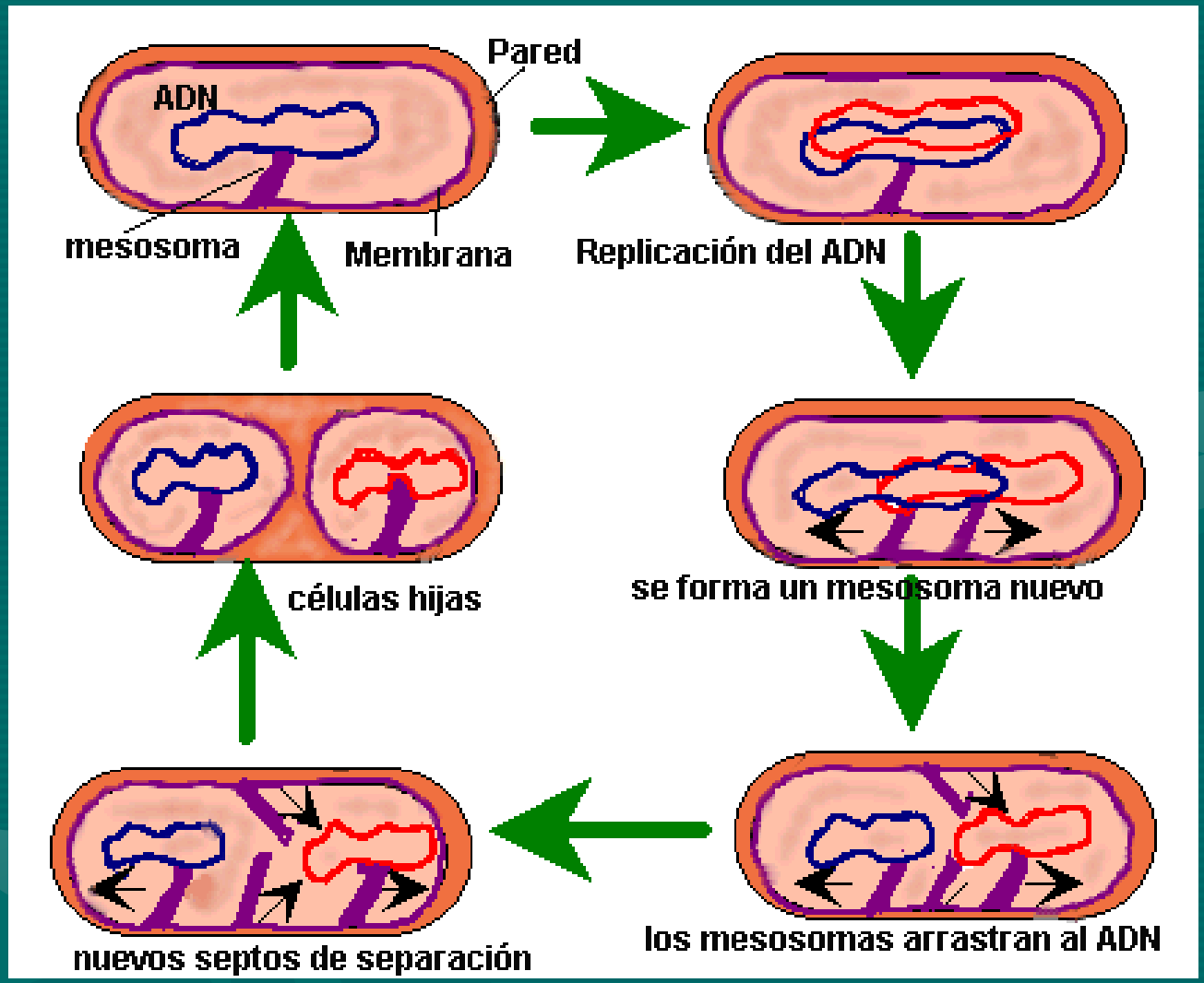


Plant cells in various stages of mitosis: (a) prophase; (b) metaphase; (c) anaphase; (d) telophase (all magnified about 2,700 times).









REPRODUCCIÓN DAS CÉLULAS PROCARIOTAS