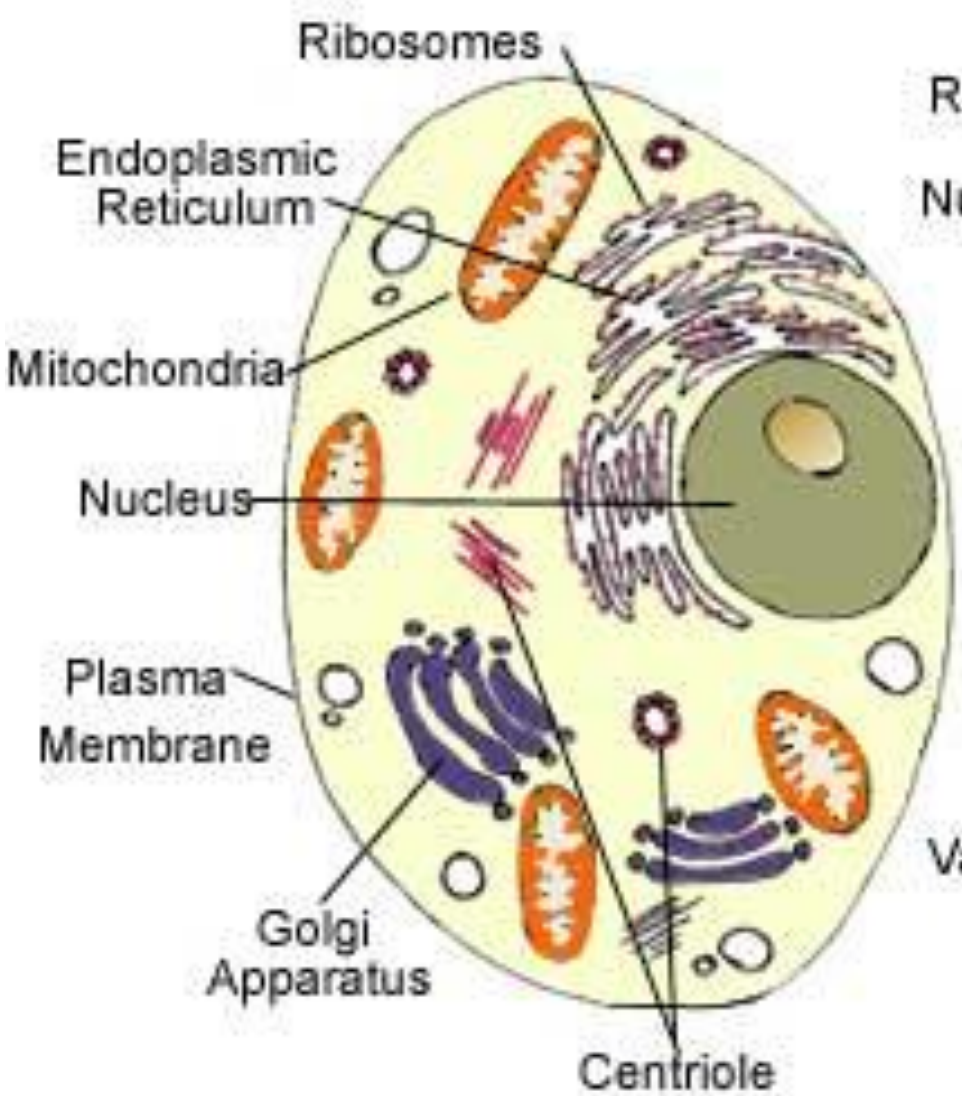
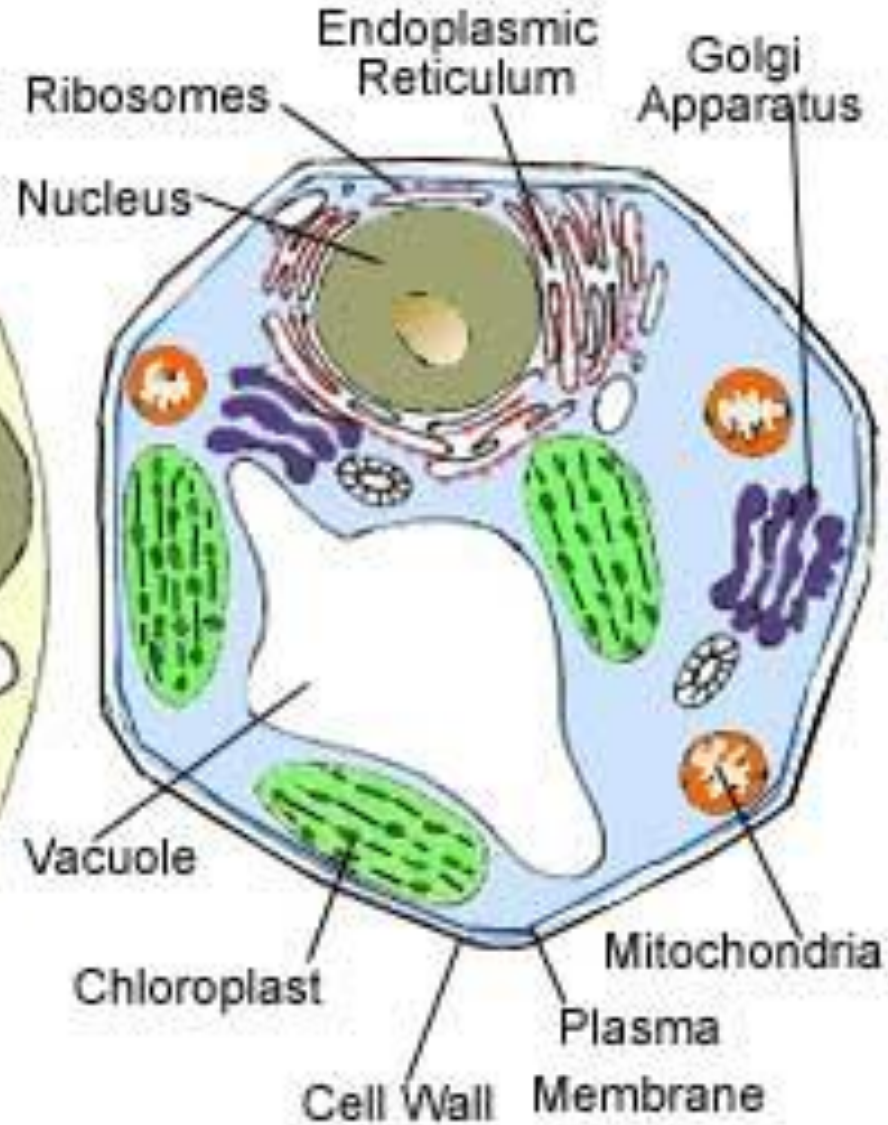
دراسة للخلايا الحيوانية والنباتية وأنماط المجاهر

أ. محمد أبو زيتون أ. عبير العاني



Animal Cell



Plant Cell

TYPE OF MICROSCOPES

انماط المجاهر

المجهر الضوئي

LIGHT MICROSCOPY

Light-field microscopy

المجهر ذو الساحة الساطعة

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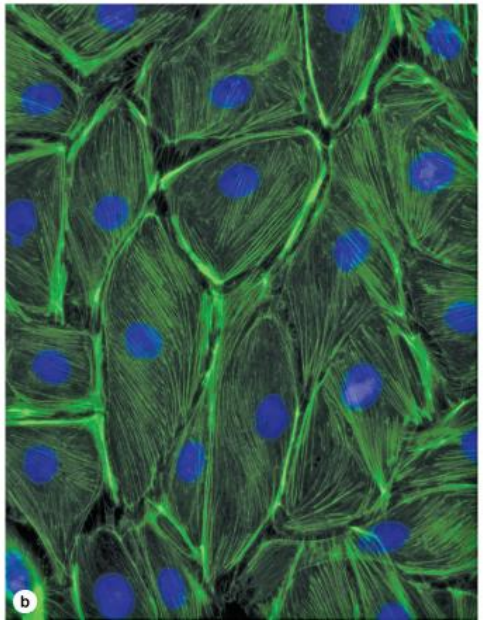
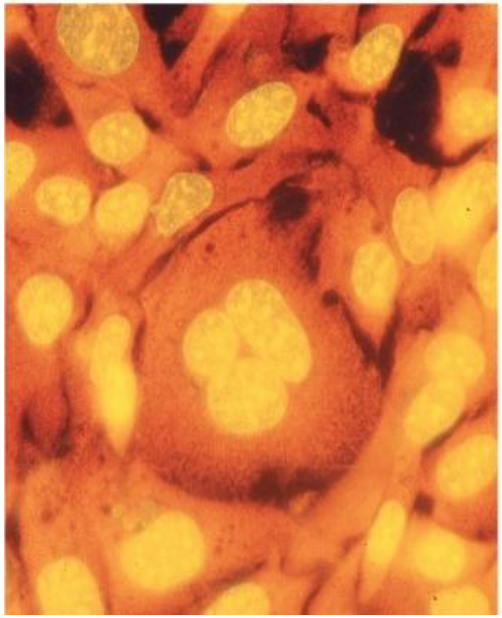
Fluorescence Microscopy
المجهر المفلور

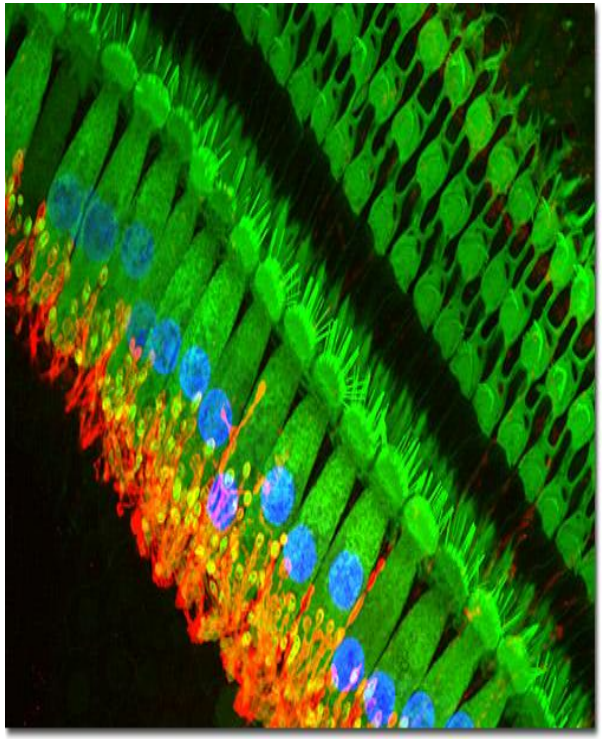


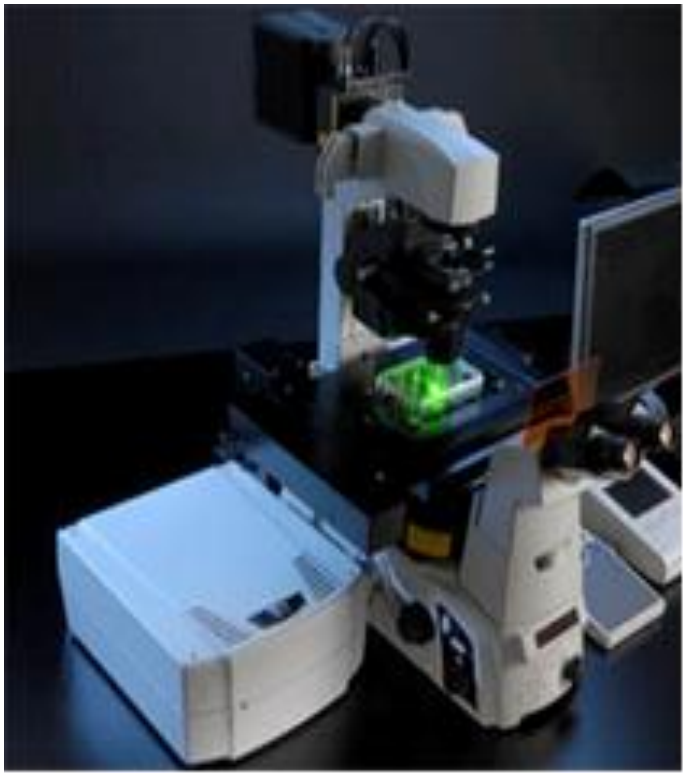
DAPI (4',6-diamino-2-phenylindole) and with phalloidin



acridine orange

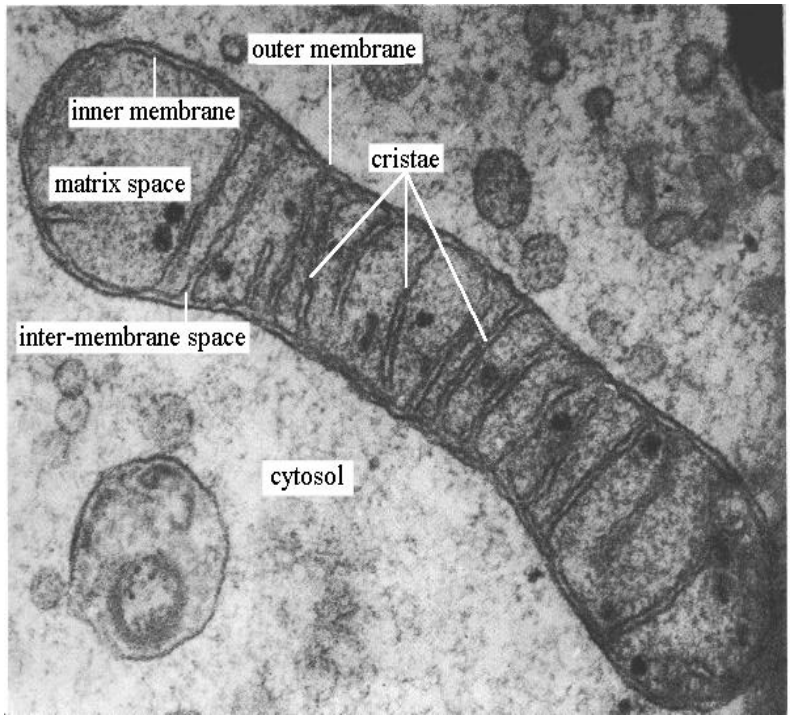
Confocal Microscopy
المجهر البؤري





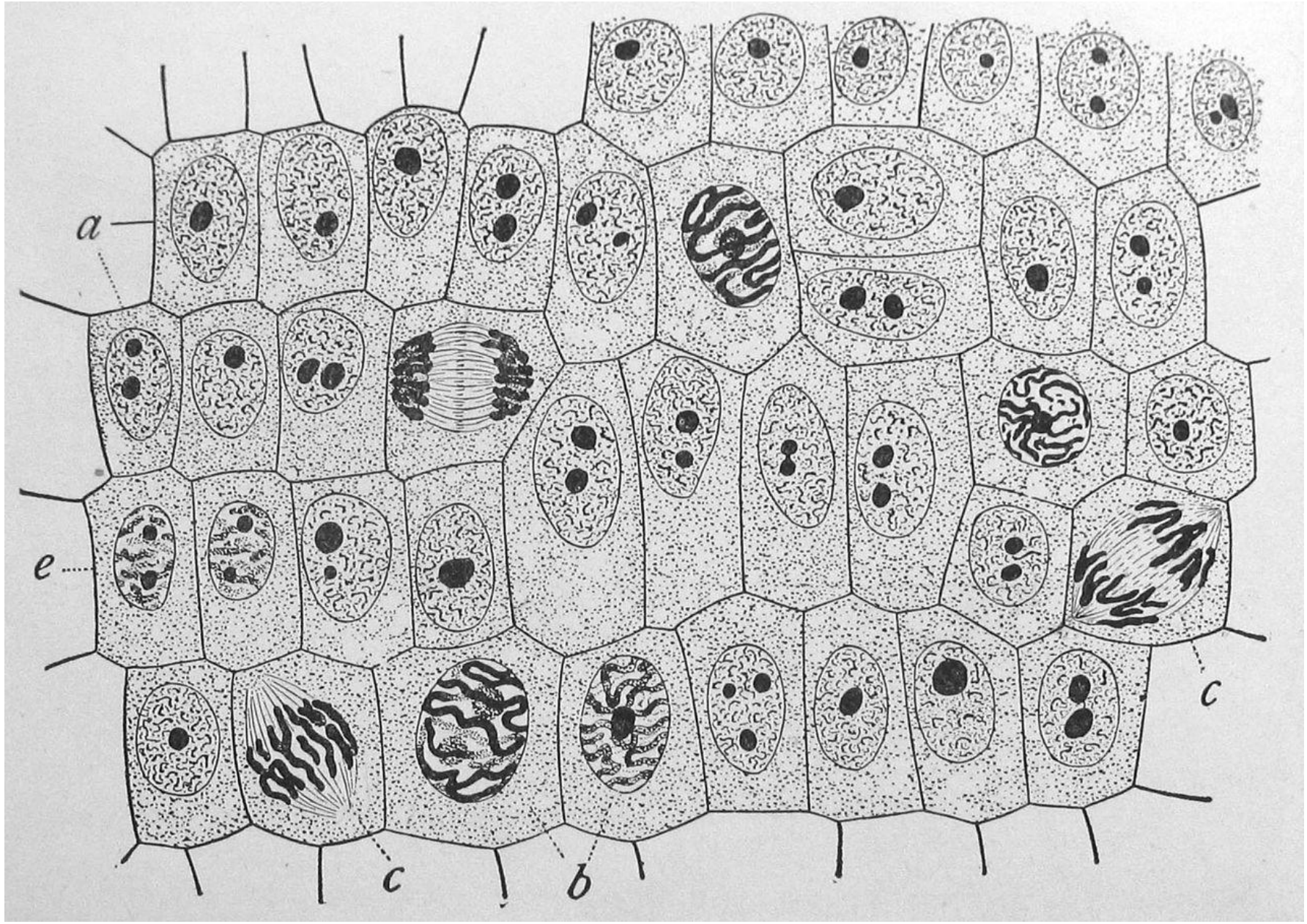
Electron Microscopy

المجهر الإلكتروني

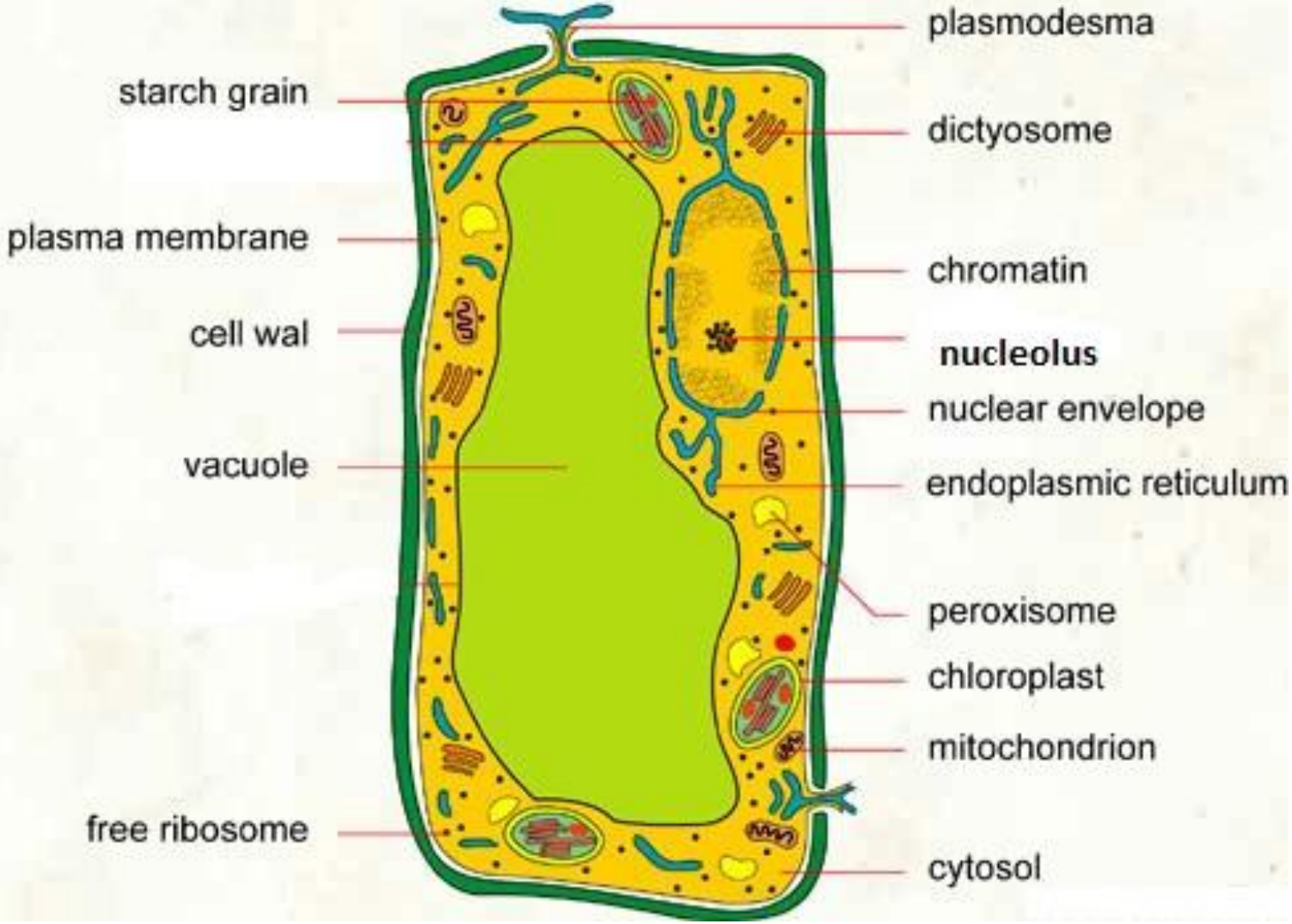


TEM

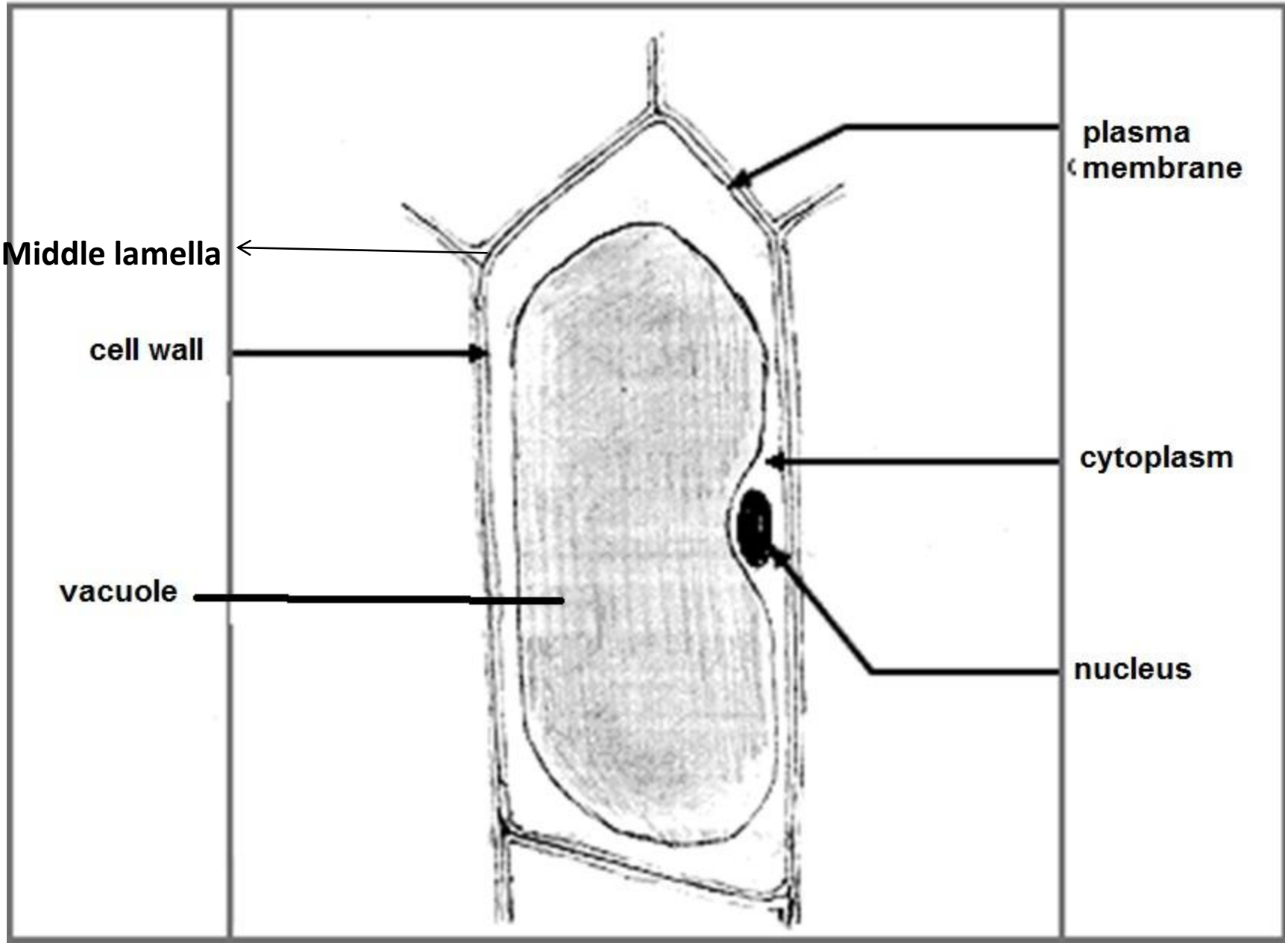
SEM


a
e
c
b
c

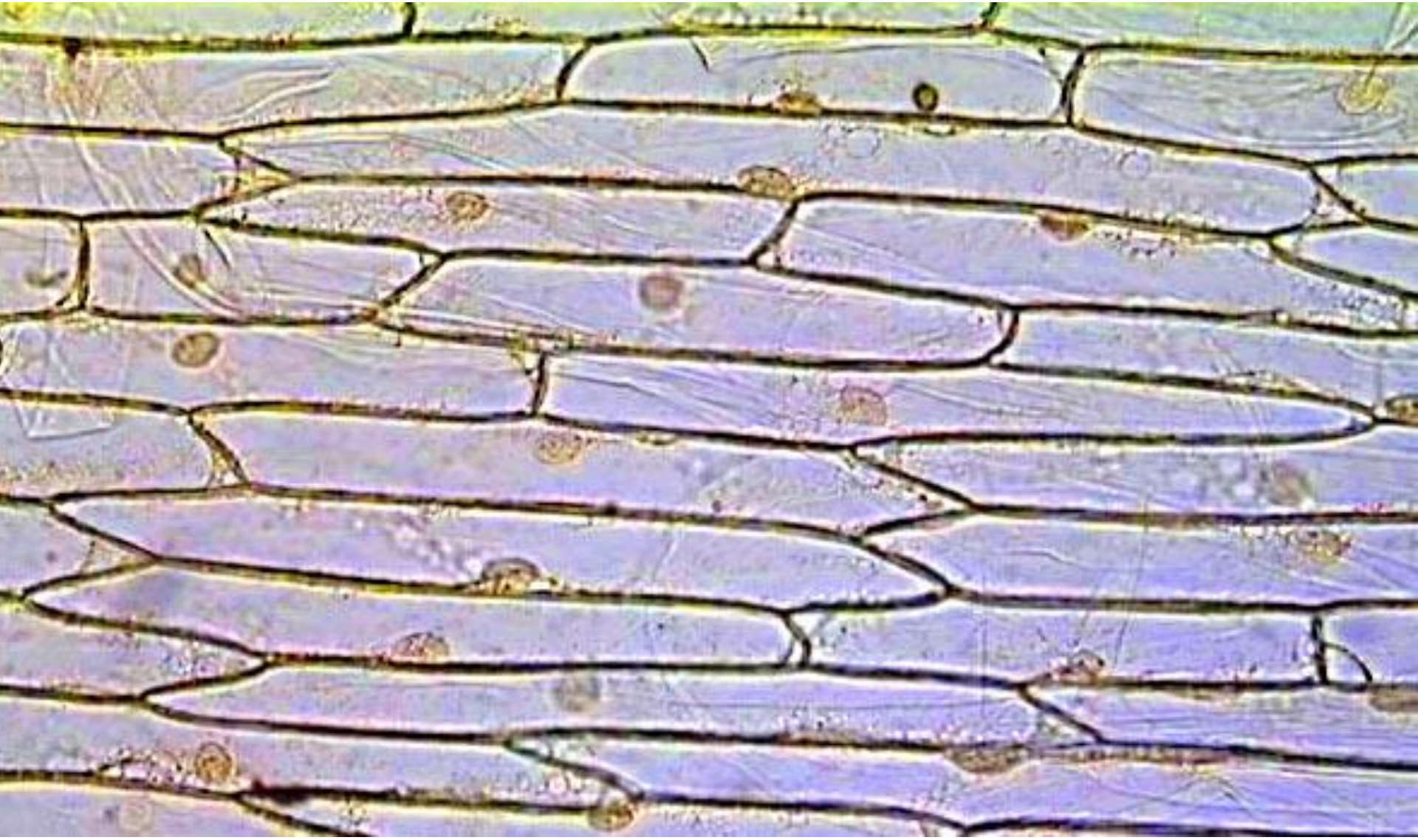
PLANT CELL


plasmodesma
starch grain
dictyosome
plasma membrane
chromatin
cell wal
nucleolus
nuclear envelope
vacuole
endoplasmic reticulum
peroxisome
chloroplast
mitochondrion
free ribosome
cytosol

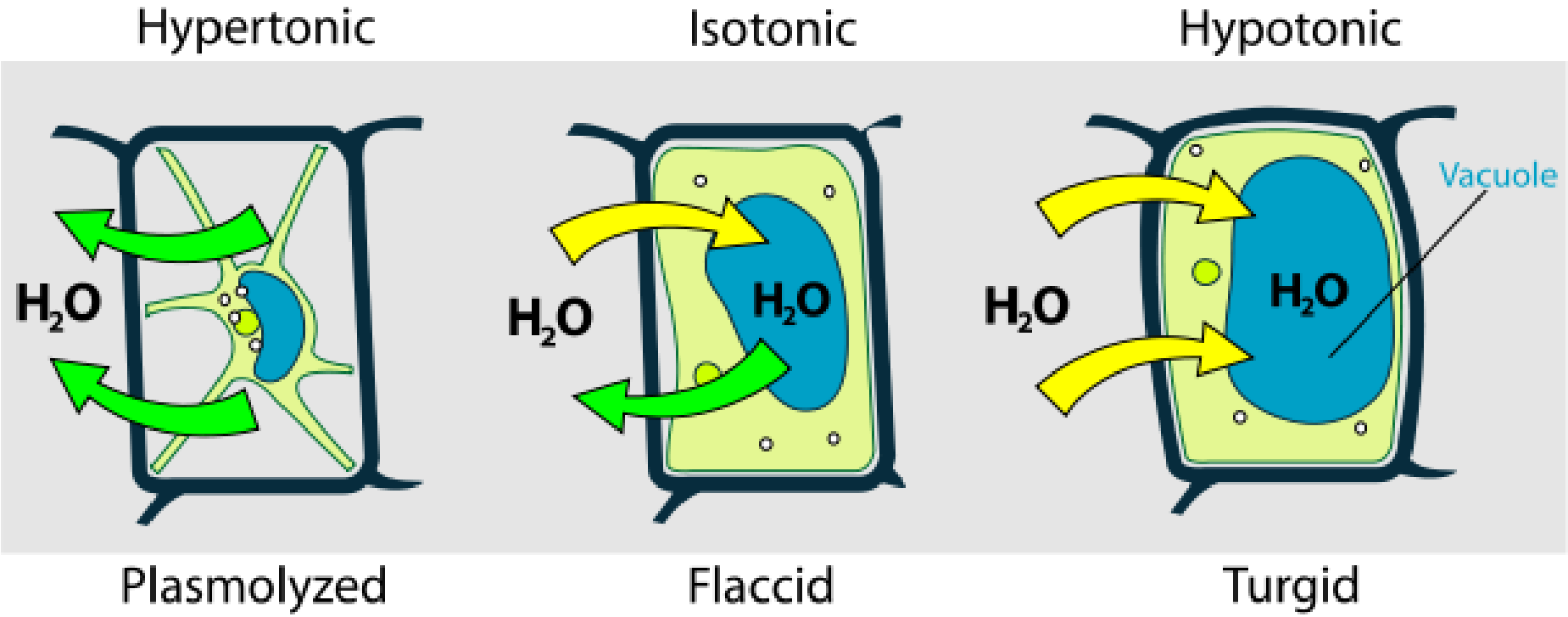
- النبات: البصل: Allium Cepa
- الفصيلة الزنبقية Liliaceae
- الوسط ماء اليود اليودي


plasma membrane
Middle lamella
cell wall
cytoplasm
vacuole
nucleus

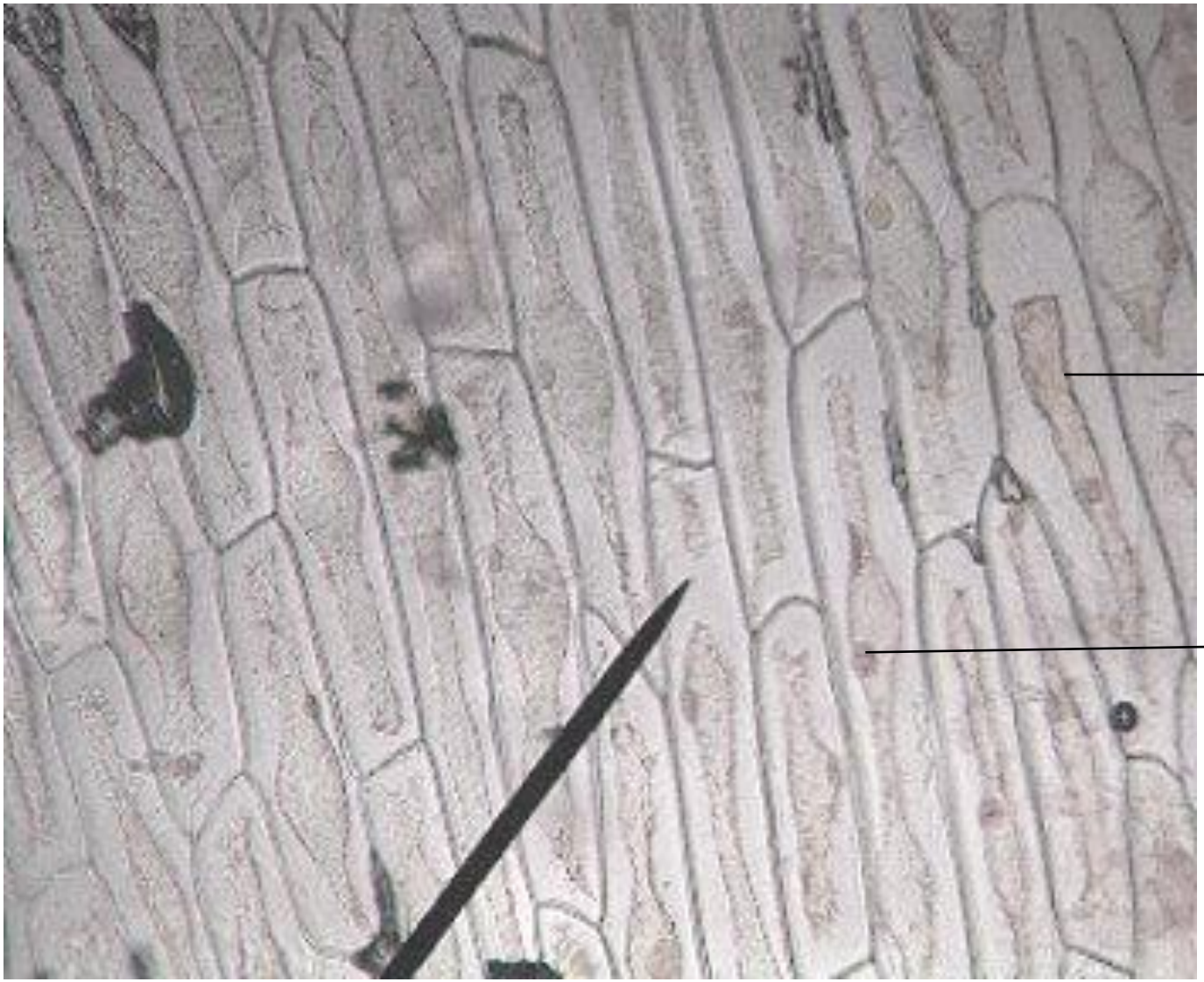
قشرة البصل "الغشاء"
قطرة يود
شريحة زجاجية
غطاء شريحة
Nada



Plasmolysis



- النبات: البصل: Allium Cepa
- الفصيلة الزنبقية Liliaceae
- الوسط الغليسرين


Plasma membrane
nucleus