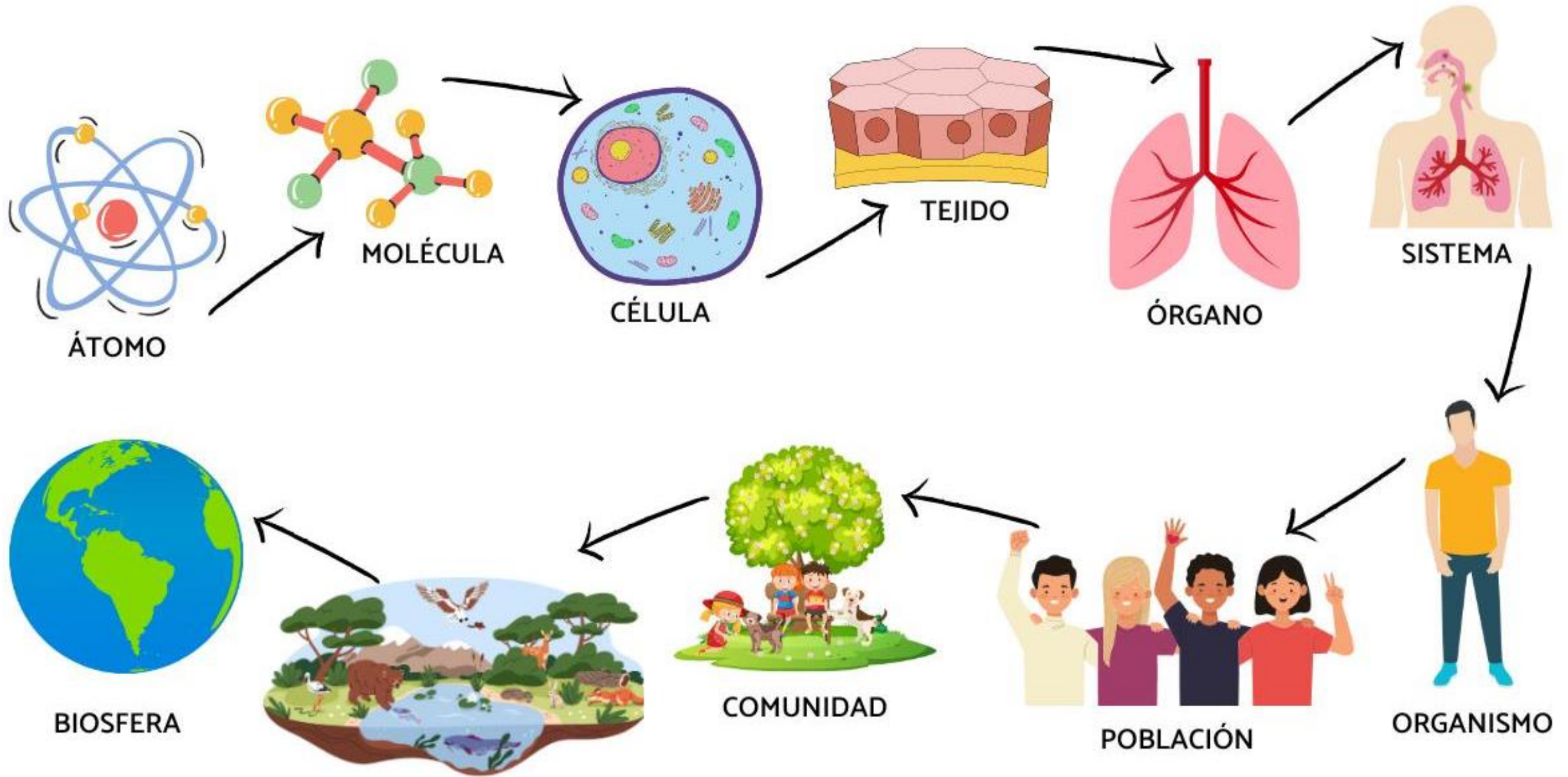
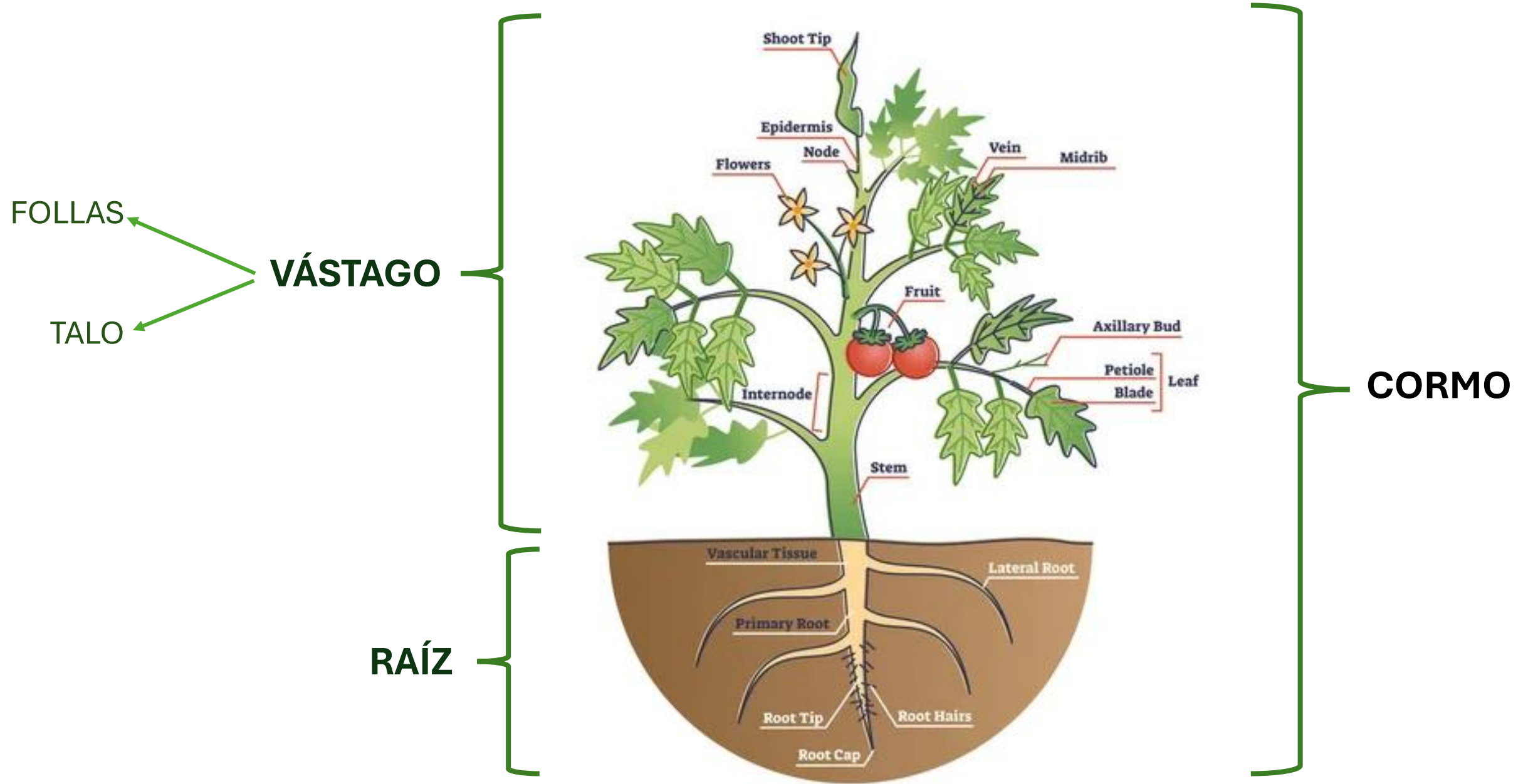


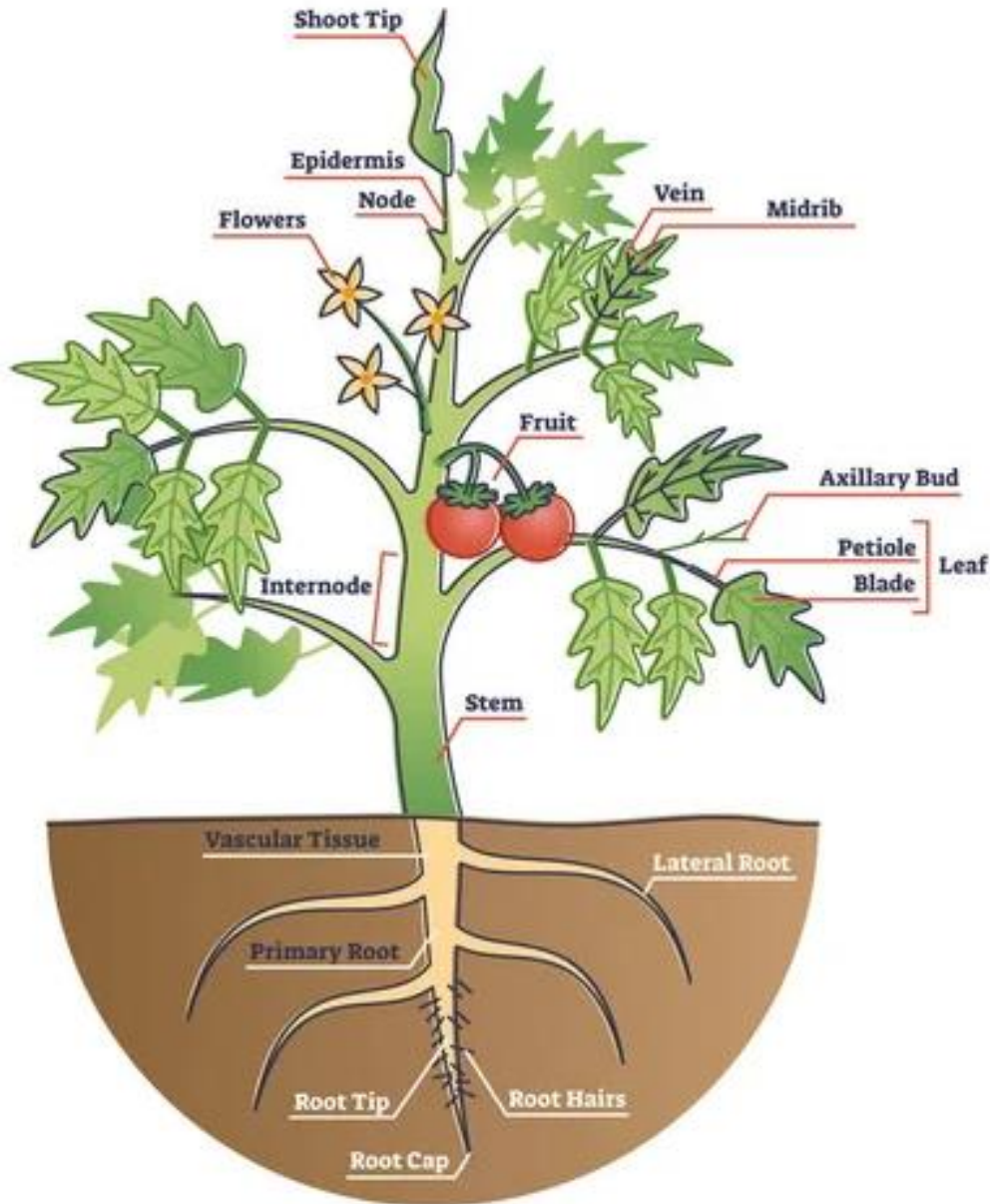
INTRODUCCIÓN Á HISTOLOXÍA



PLAN ESTRUTURAL DAS PLANTAS



PLAN ESTRUTURAL DAS PLANTAS



SISTEMA FUNDAMENTAL

- PARÊNQUIMA
- COLÊNQUIMA
- ESCLERÊNQUIMA

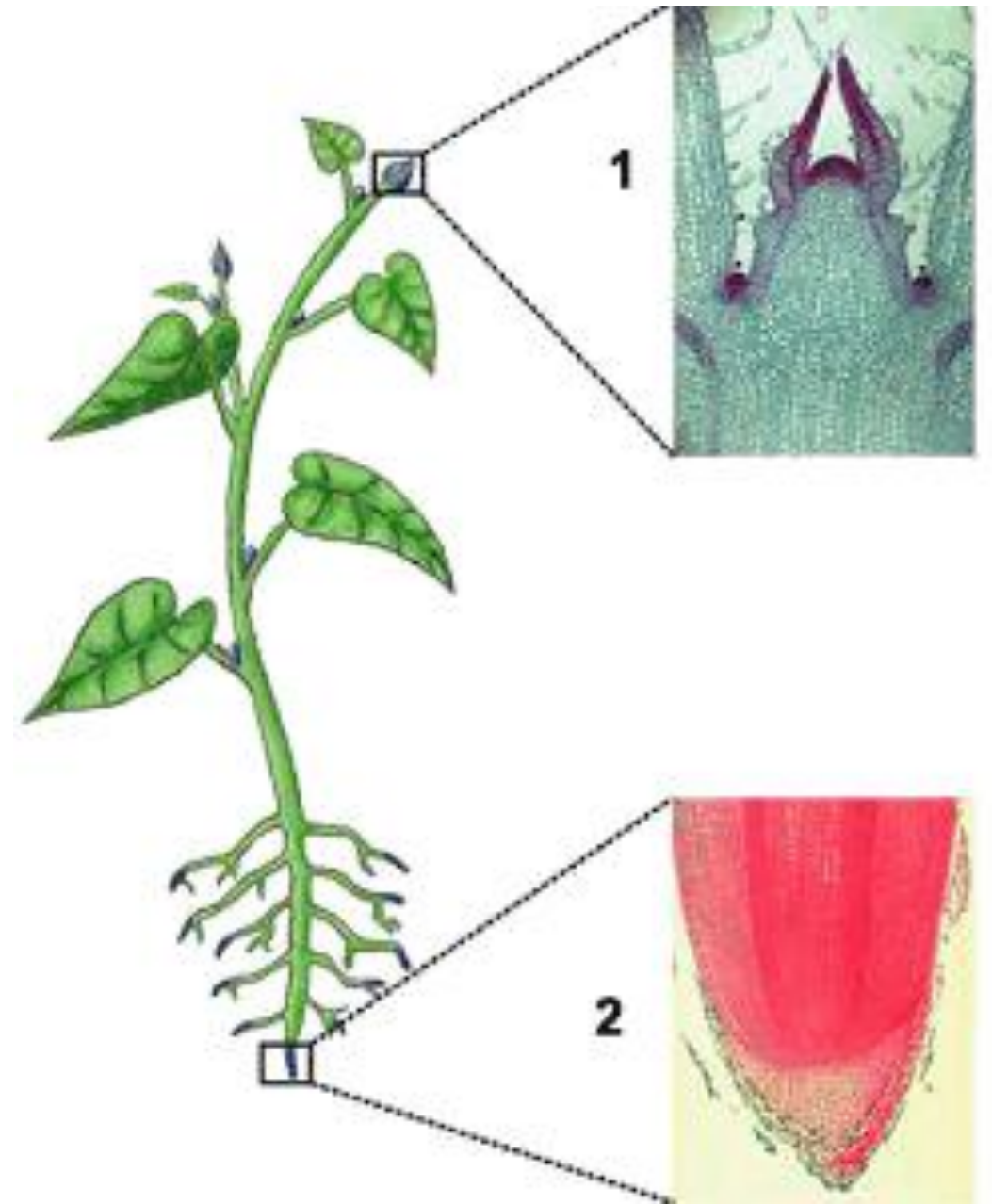
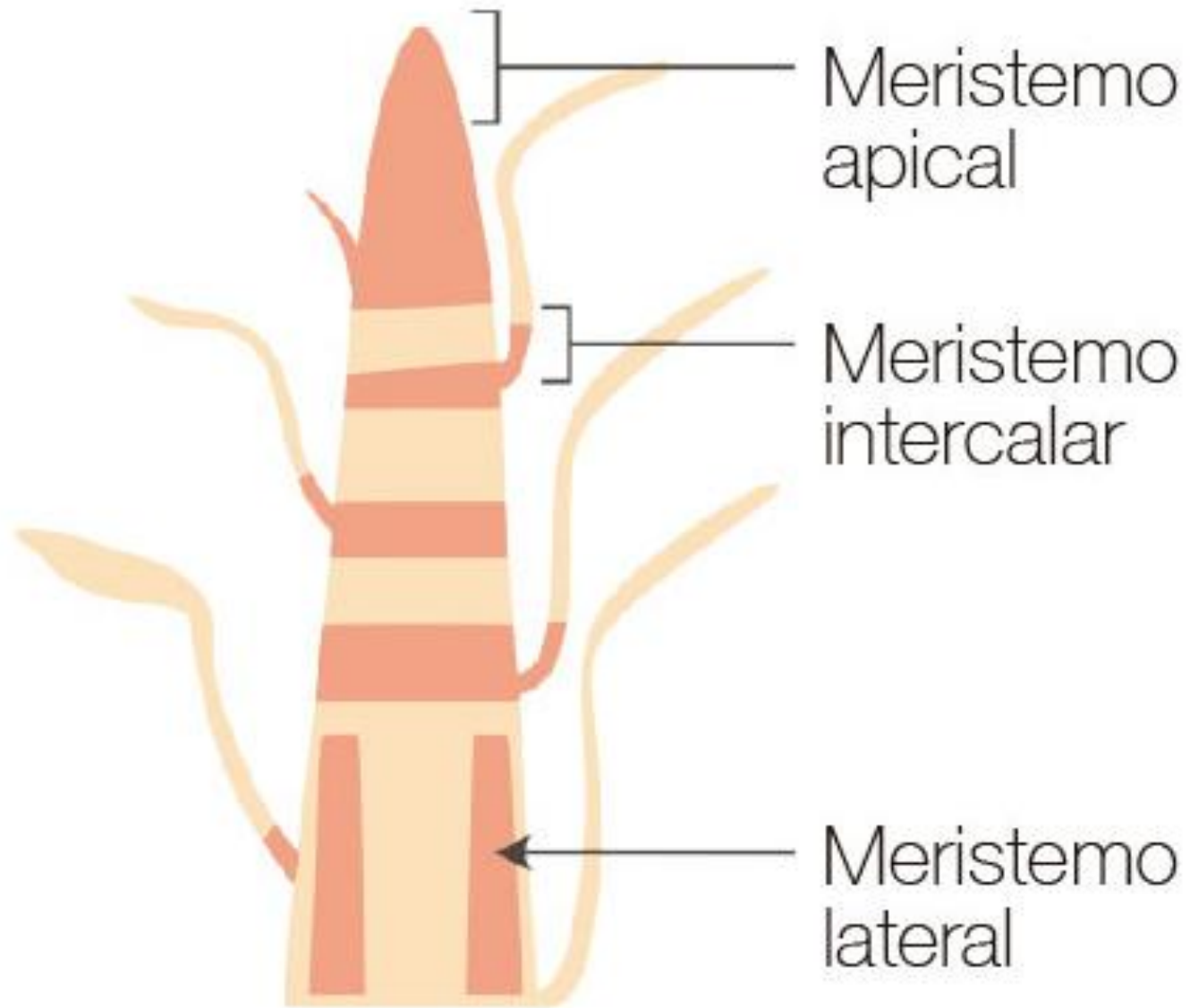
SISTEMA VASCULAR

- XILEMA
- FLOEMA

SISTEMA DÉRMICO

- EPIDERMIS
- SÚBER

TECIDOS DE CRECIMENTO → MERISTEMOS



Raíz de cebolla
(*Allium cepa*)

Procámbium

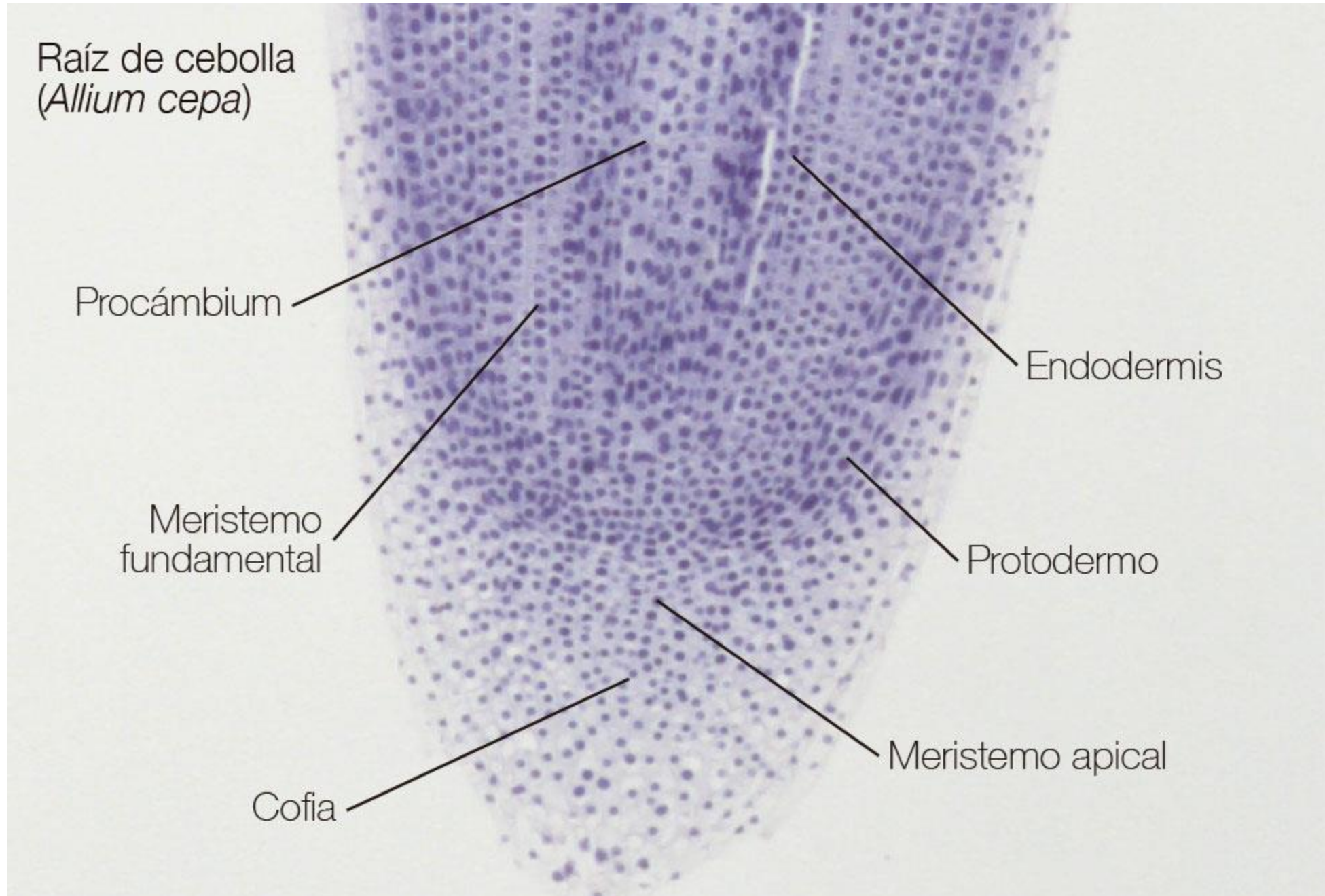
Meristemo
fundamental

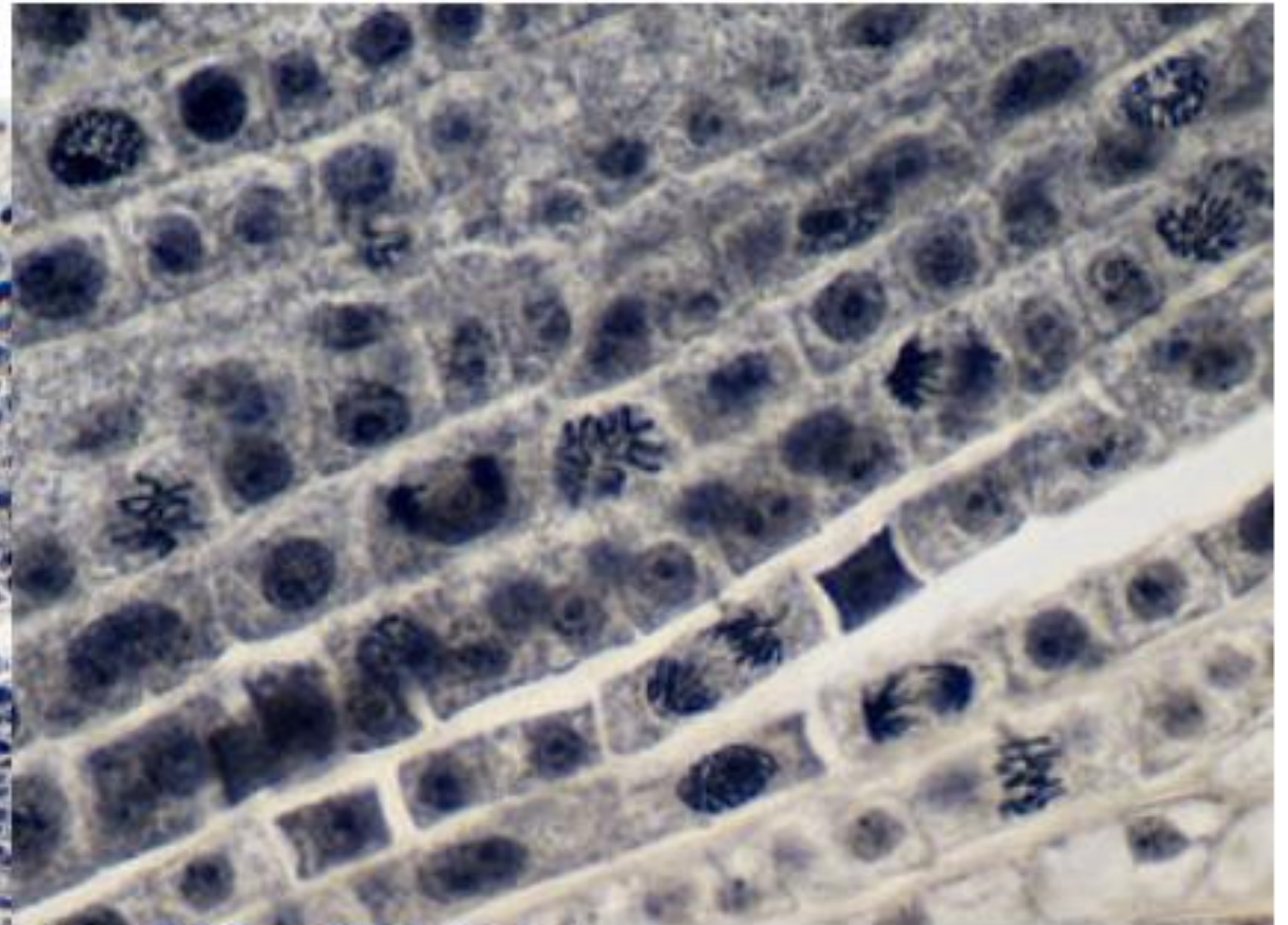
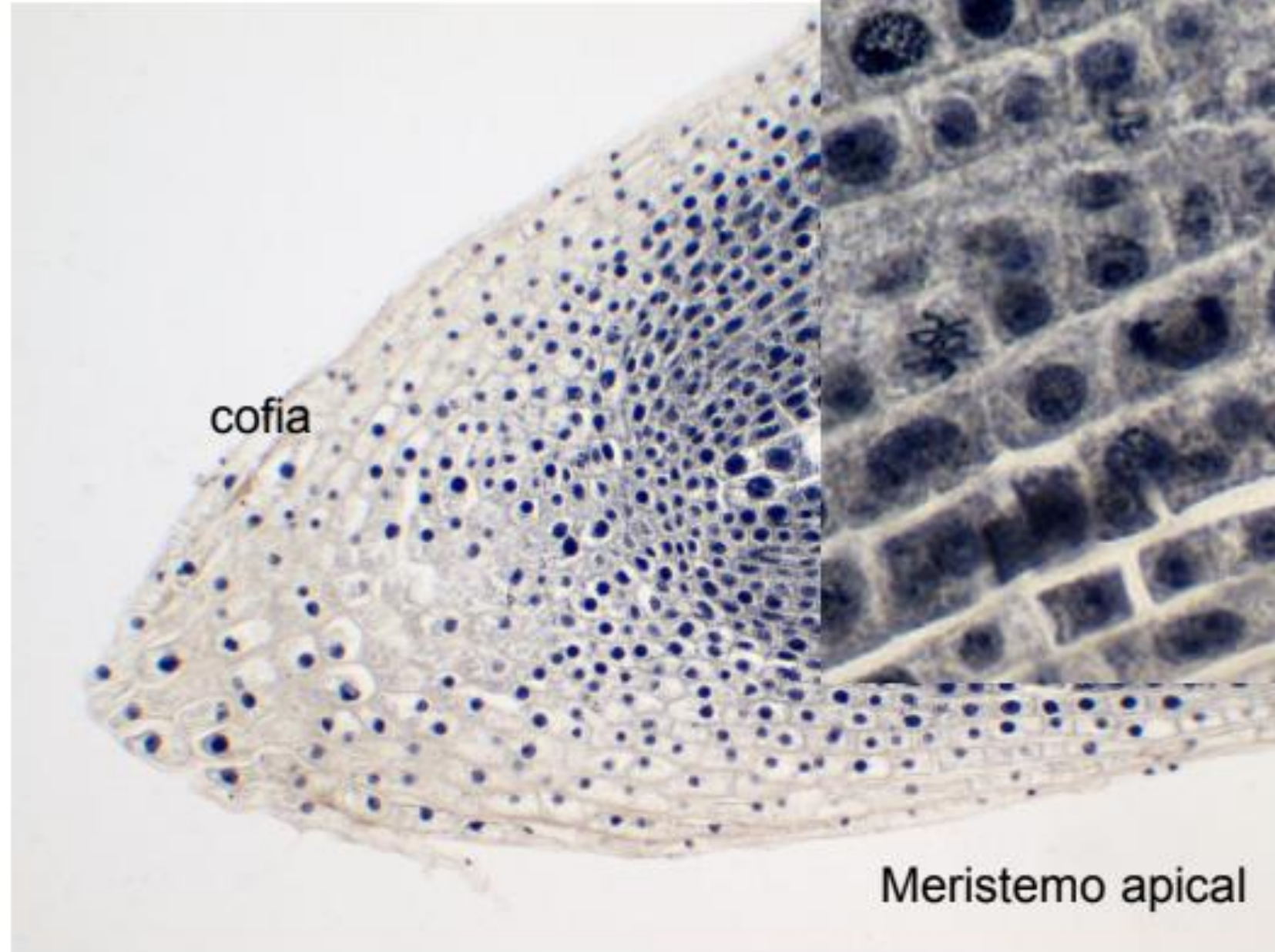
Cofia

Endodermis

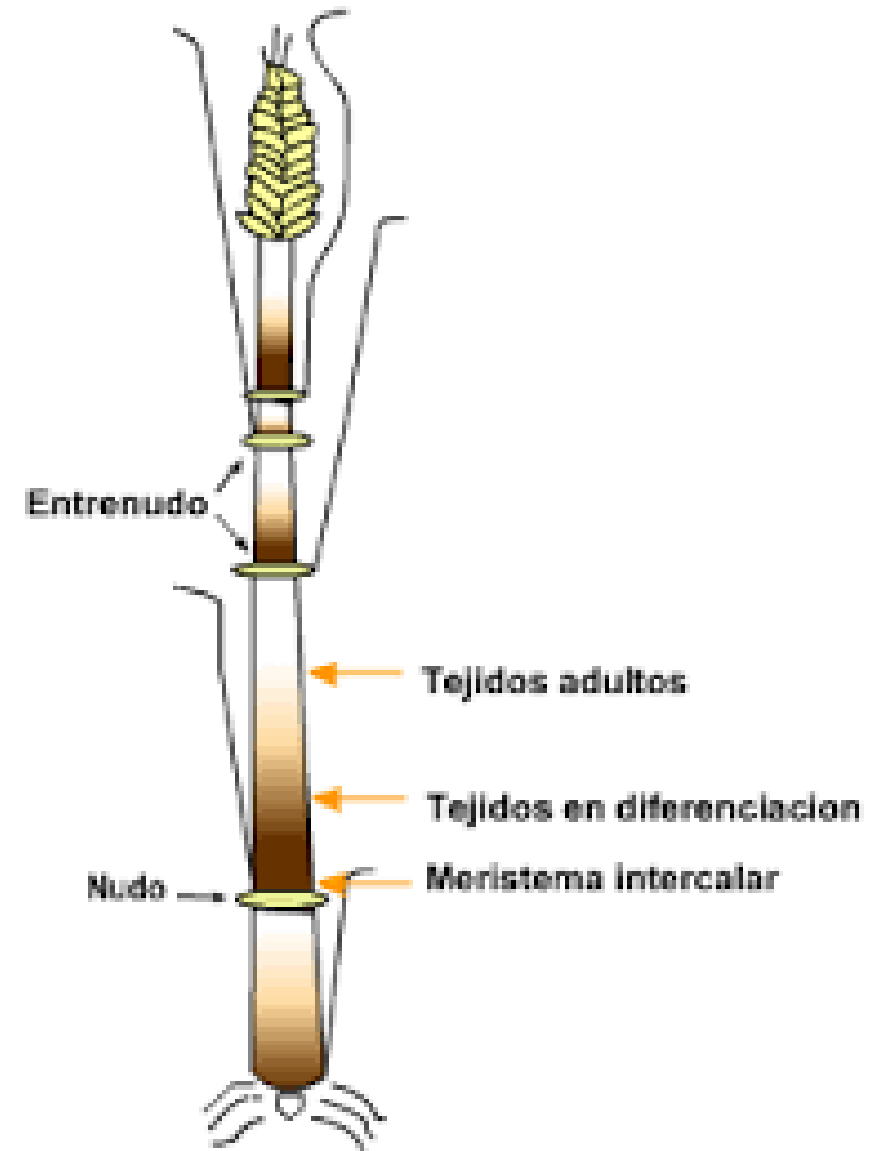
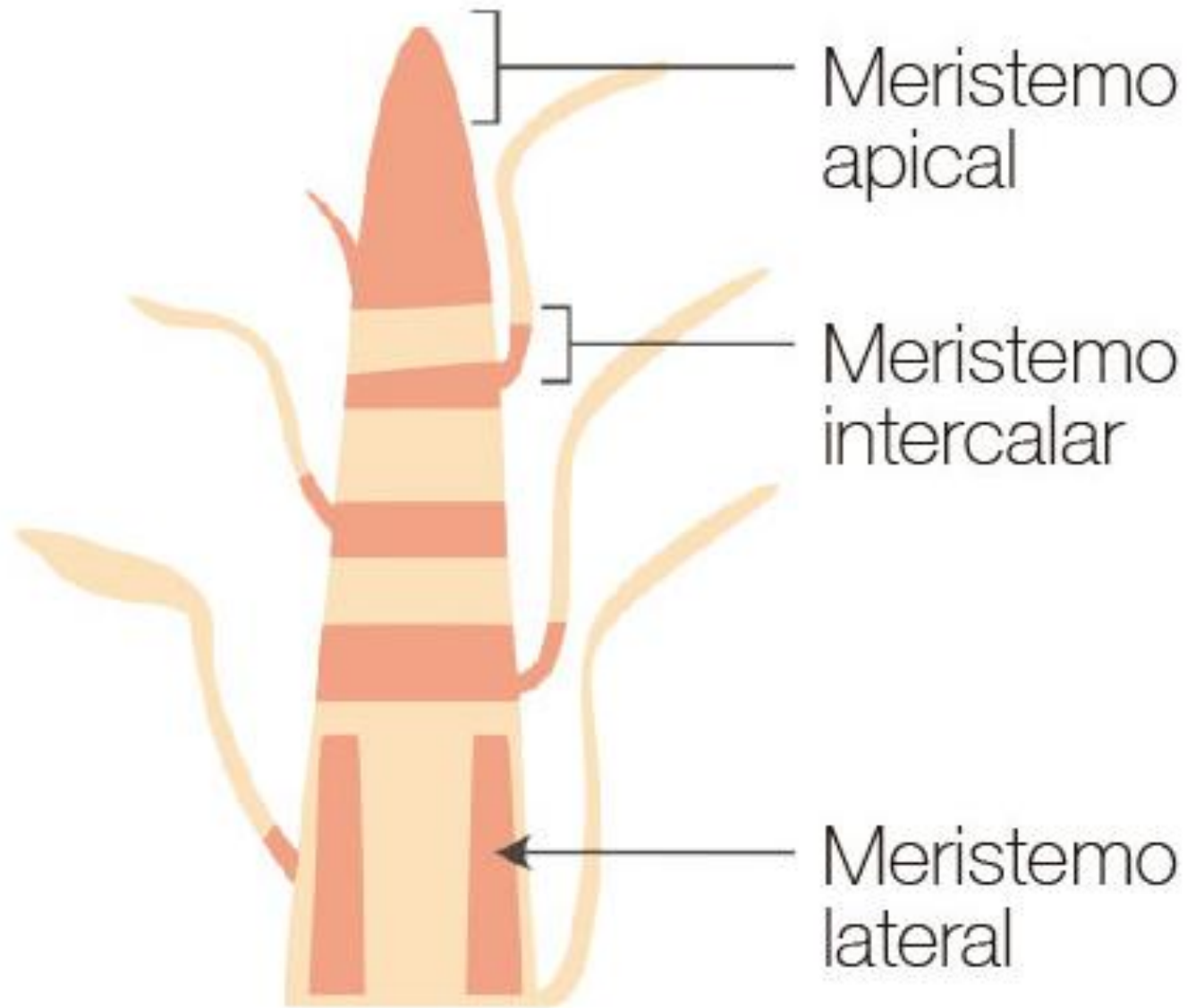
Protoderma

Meristemo apical

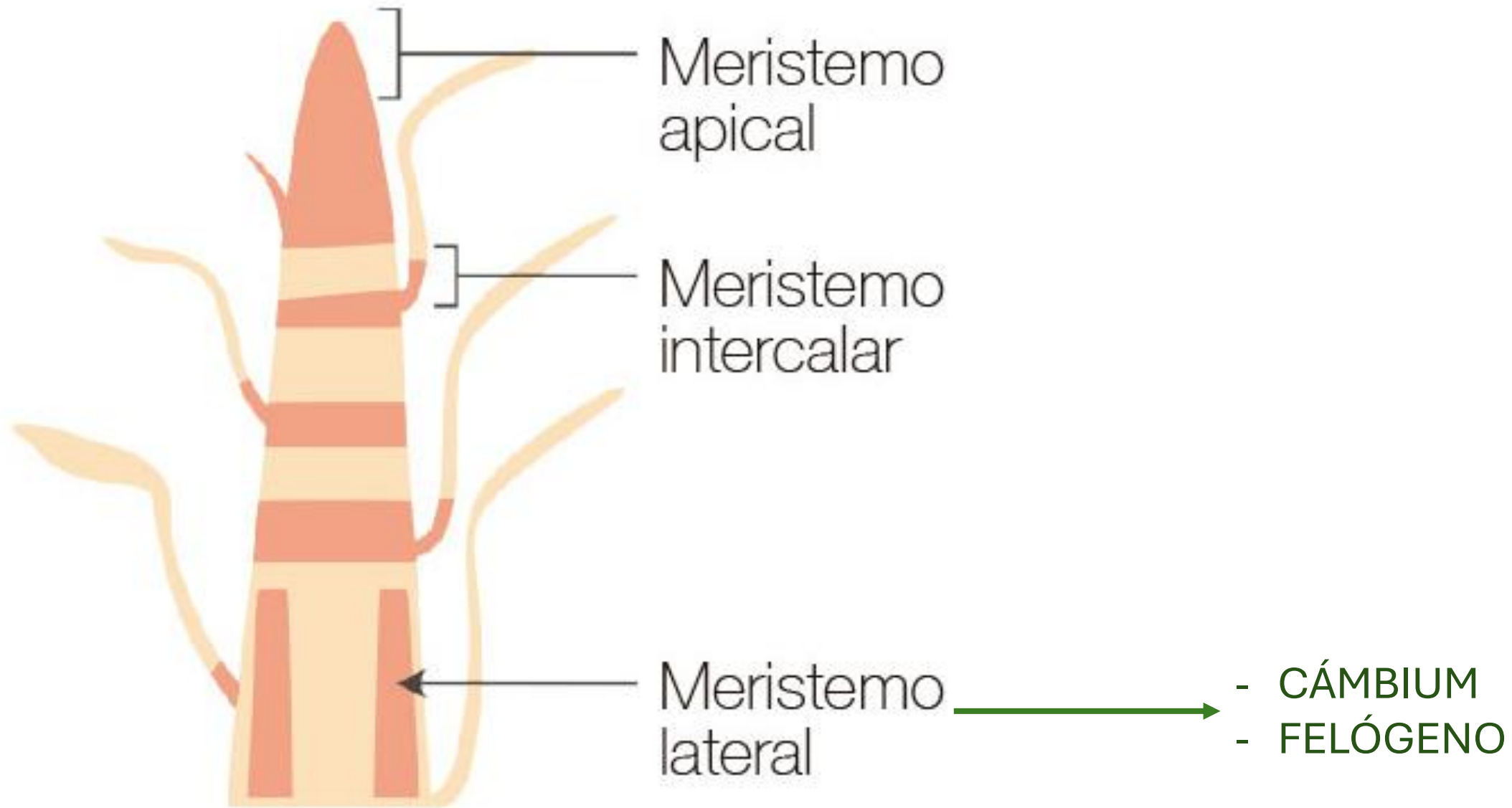




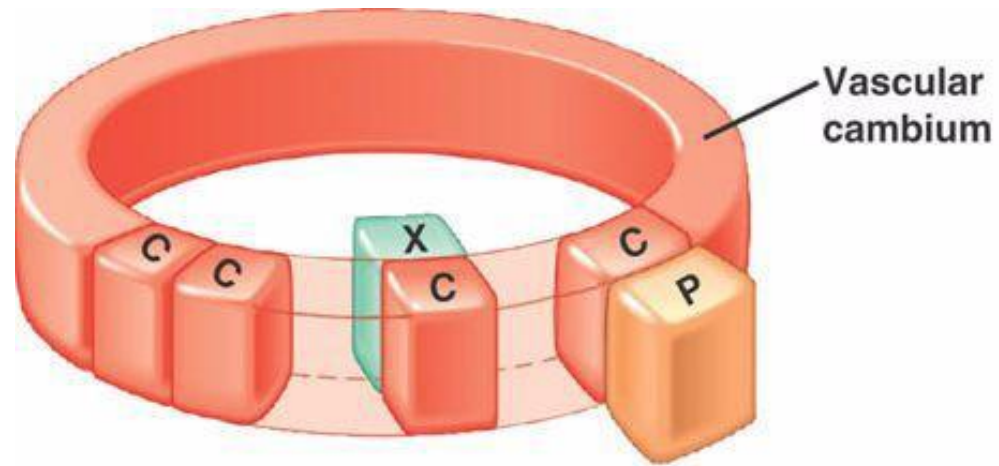
TECIDOS DE CRECIMENTO → MERISTEMOS



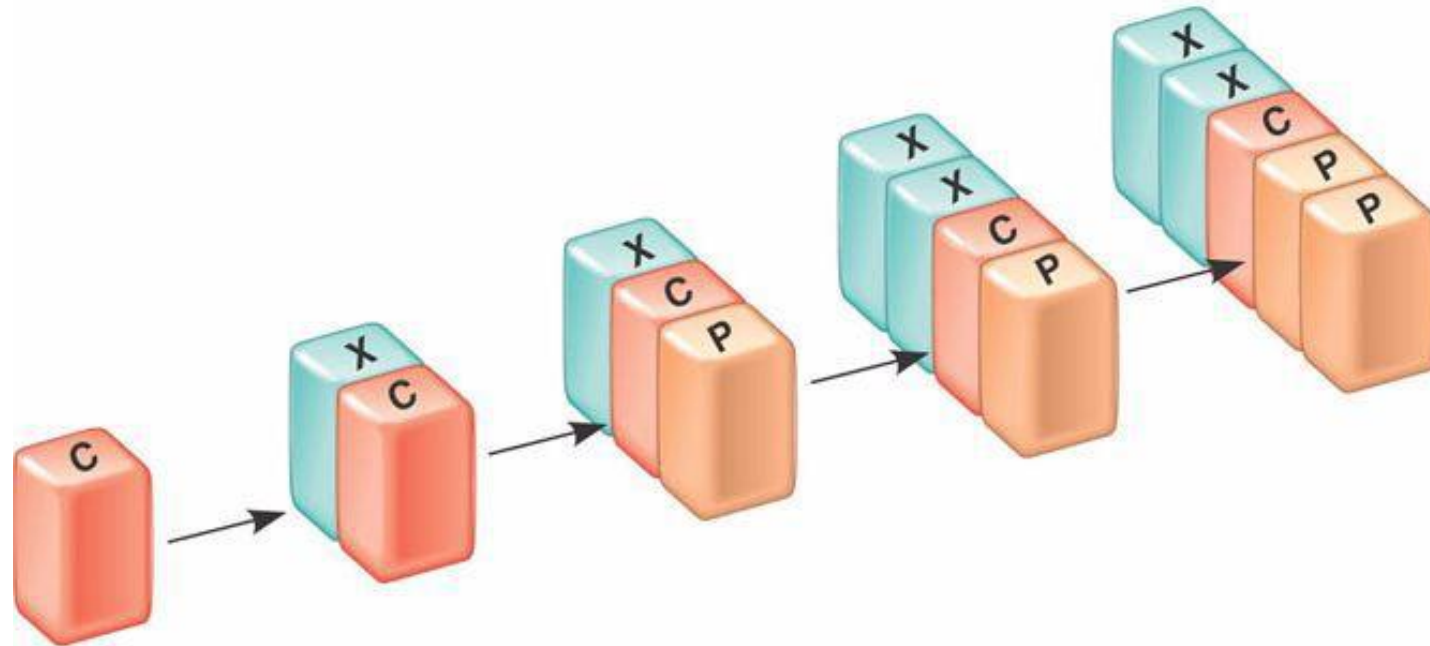
TECIDOS DE CRECIMENTO → MERISTEMOS



TECIDOS DE CRECIMENTO → MERISTEMOS



(a) Types of cell division

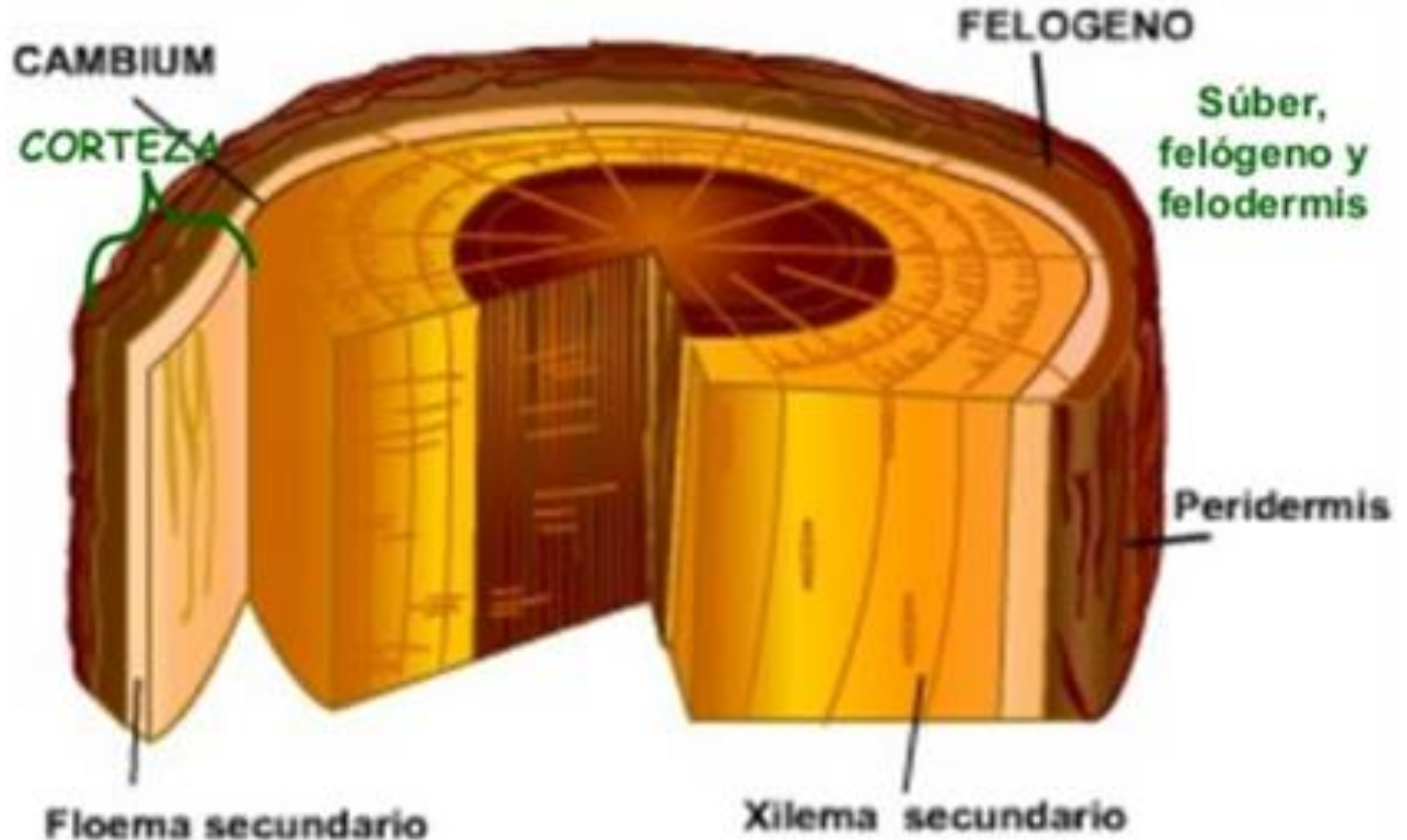


(b) Accumulation of secondary growth

TECIDOS DE CRECIMENTO → MERISTEMOS

CÁMBIUM → XILEMA E FLOEMA

FELÓGENO → SÚBER E PARÉNQUIMA CORTICAL (FELODERMIS)



Colénquima

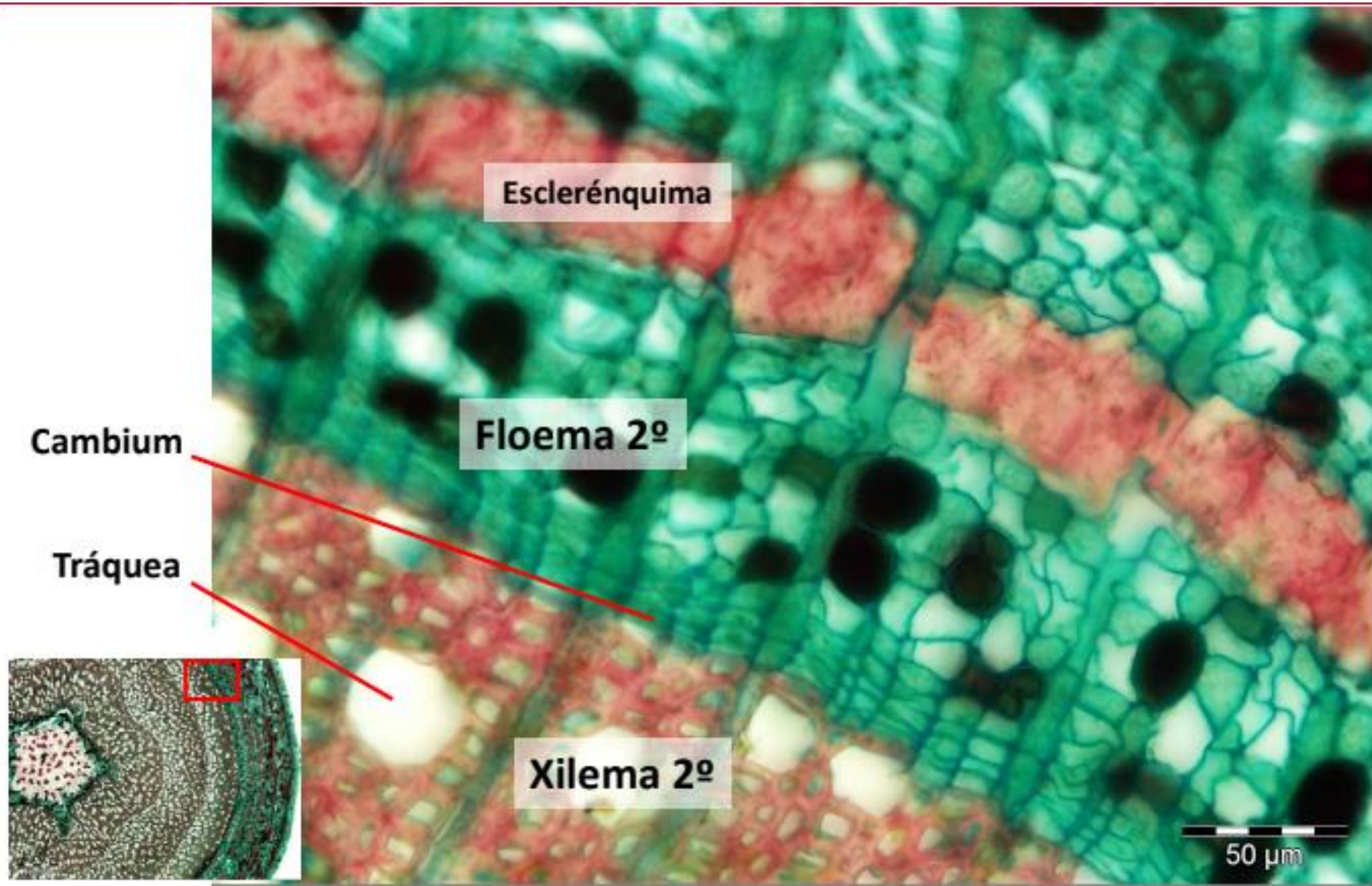
Felodermis

Felógeno

Súber

Peridermis

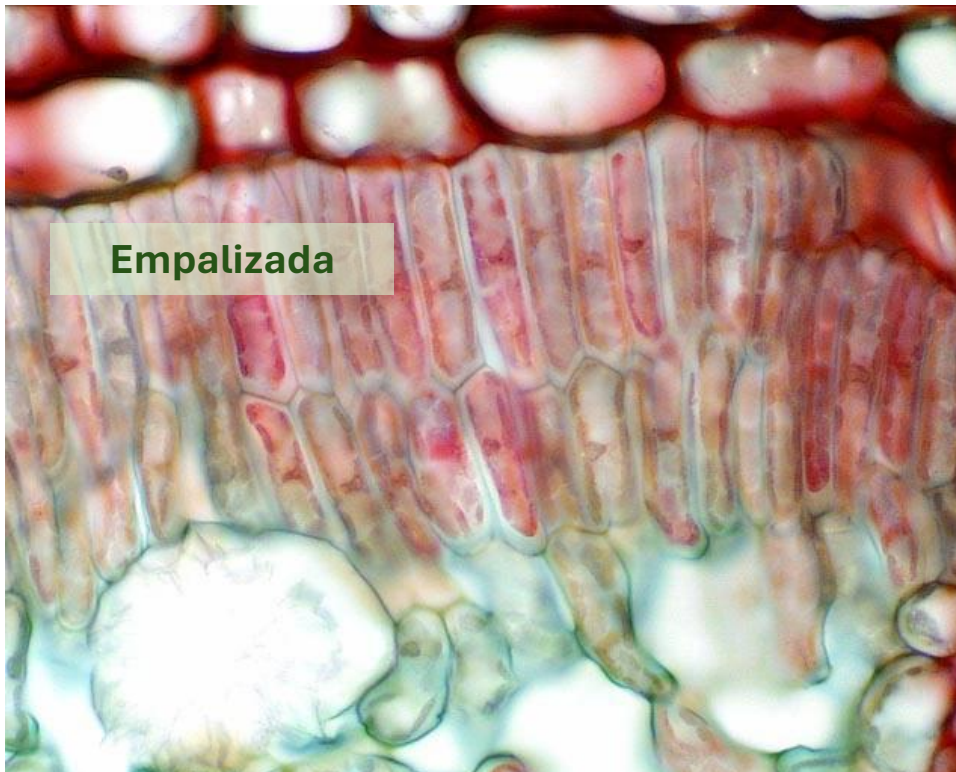




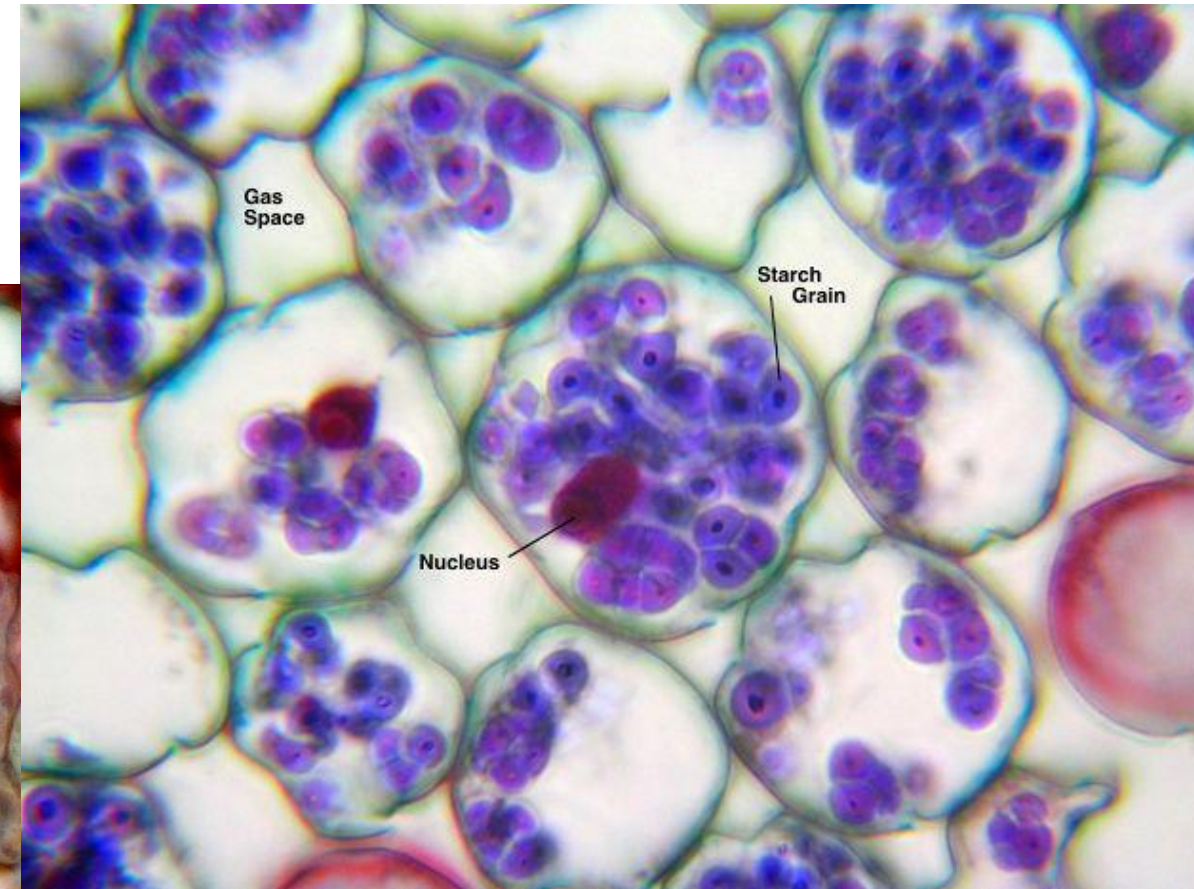
SISTEMA FUNDAMENTAL

PARÊNQUIMA

- CLOROFÍLICO → LAGUNOSO OU EM EMPALIZADA
- DE RESERVA
- AERÍFERO
- ACUÍFERO



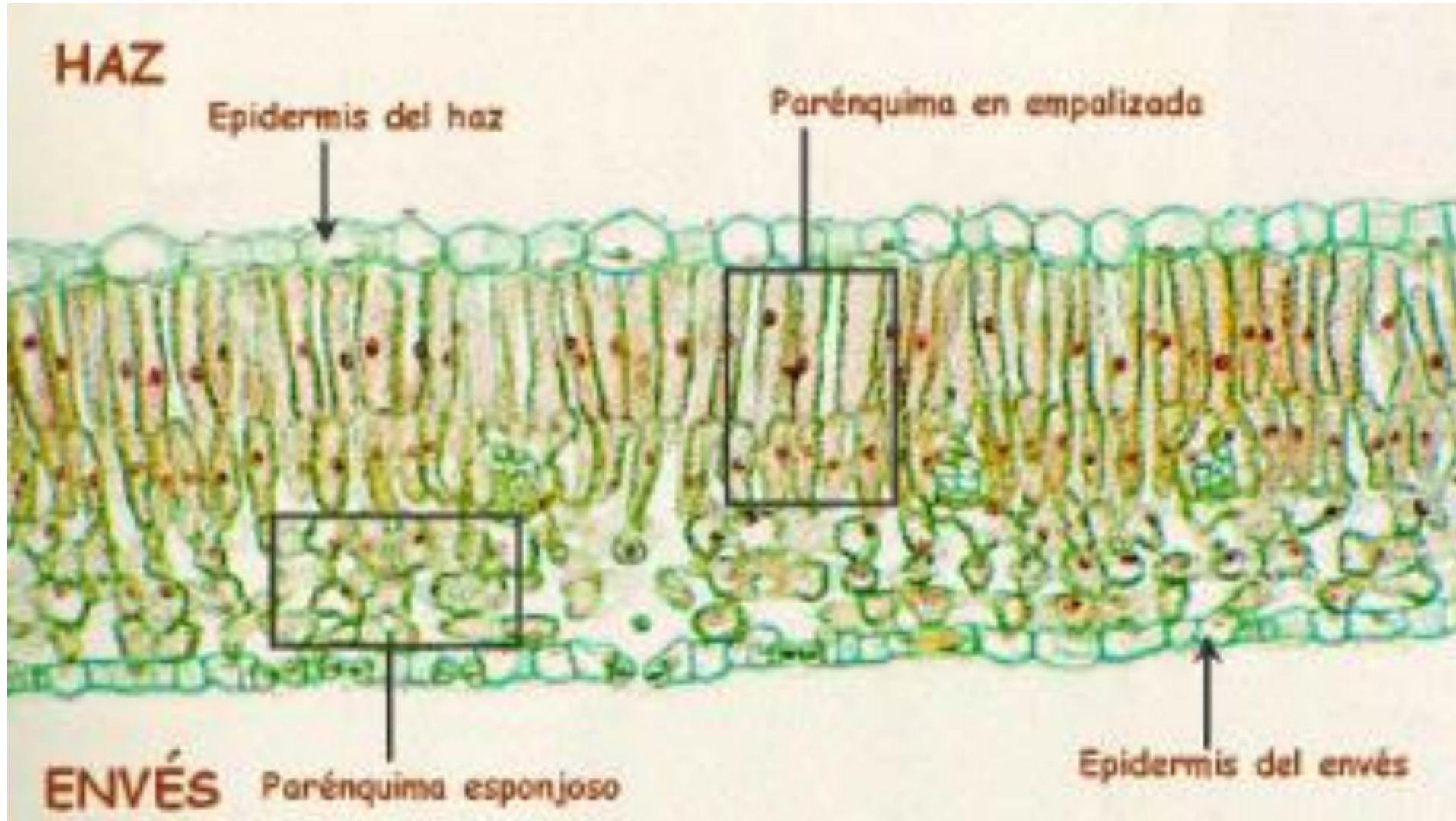
Lagunar



Parênquima de reserva

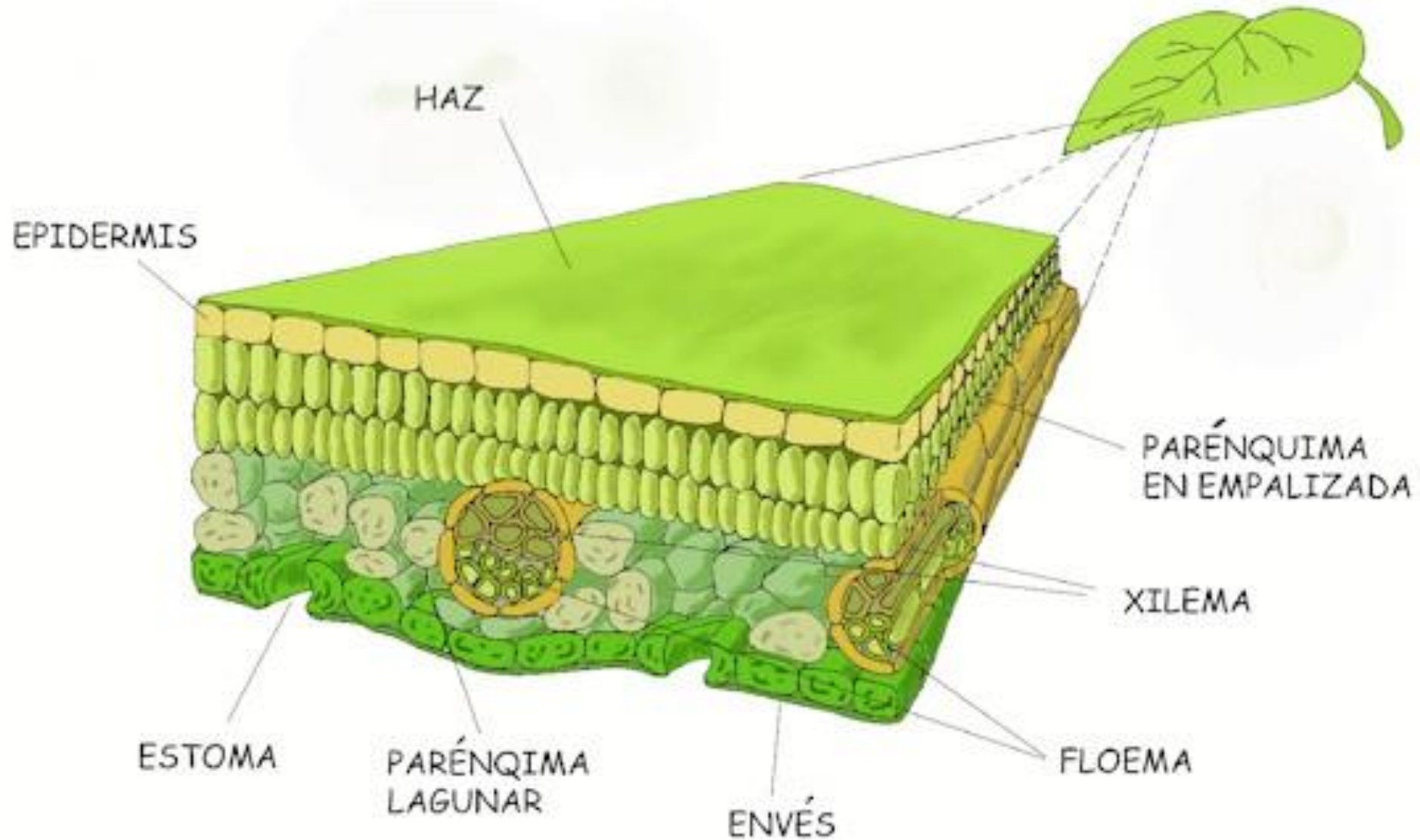
SISTEMA FUNDAMENTAL

PARÉNQUIMA CLOROFÍLICO

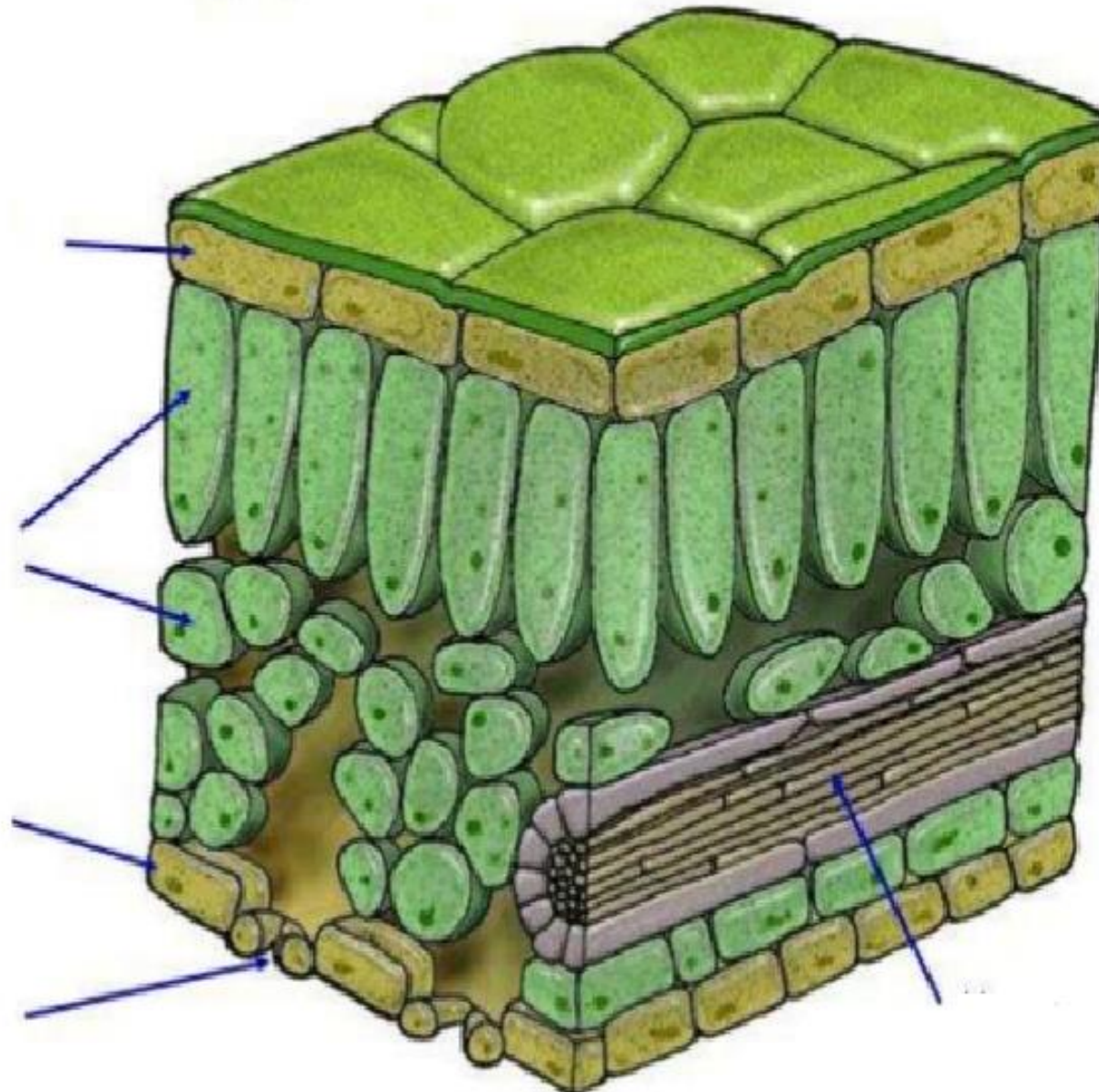


SISTEMA FUNDAMENTAL

PARÉNQUIMA CLOROFÍLICO

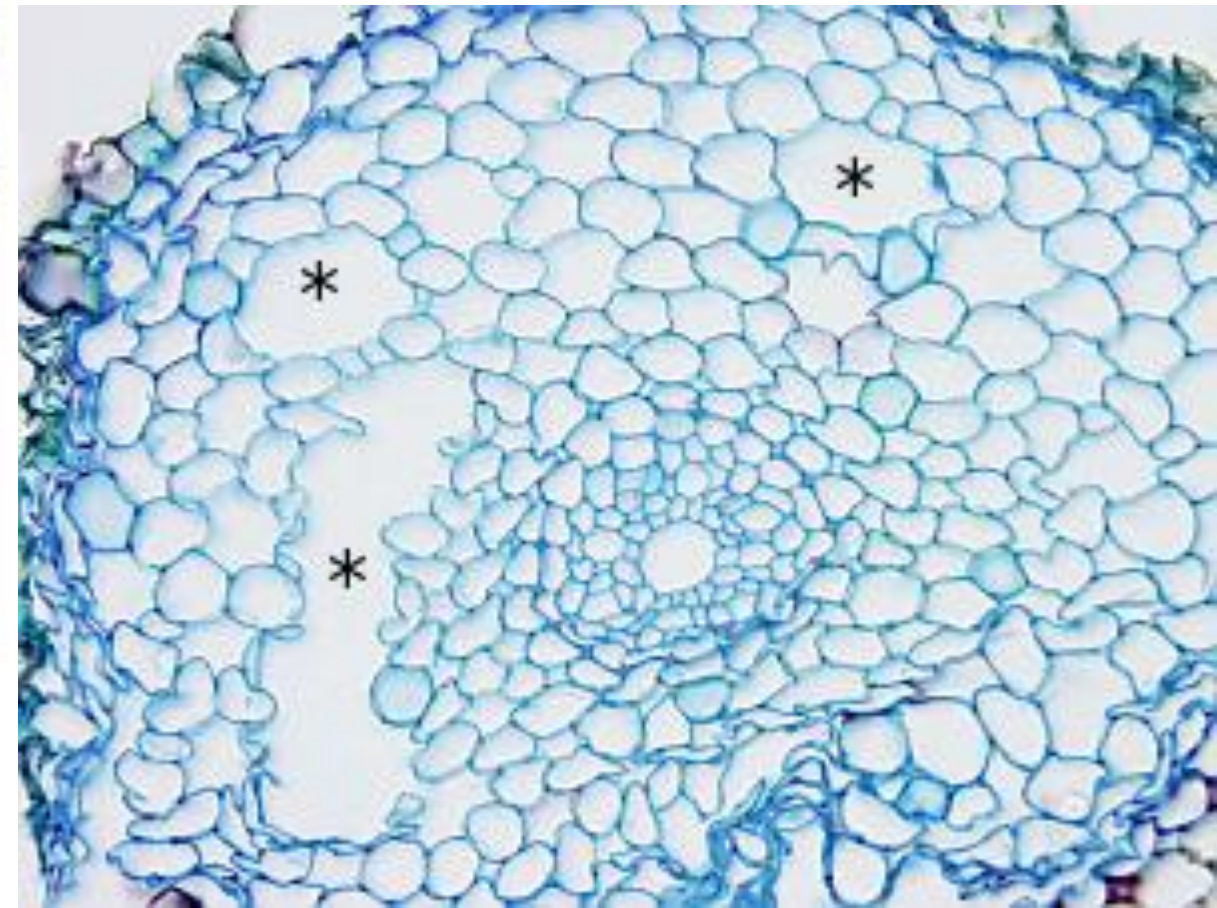
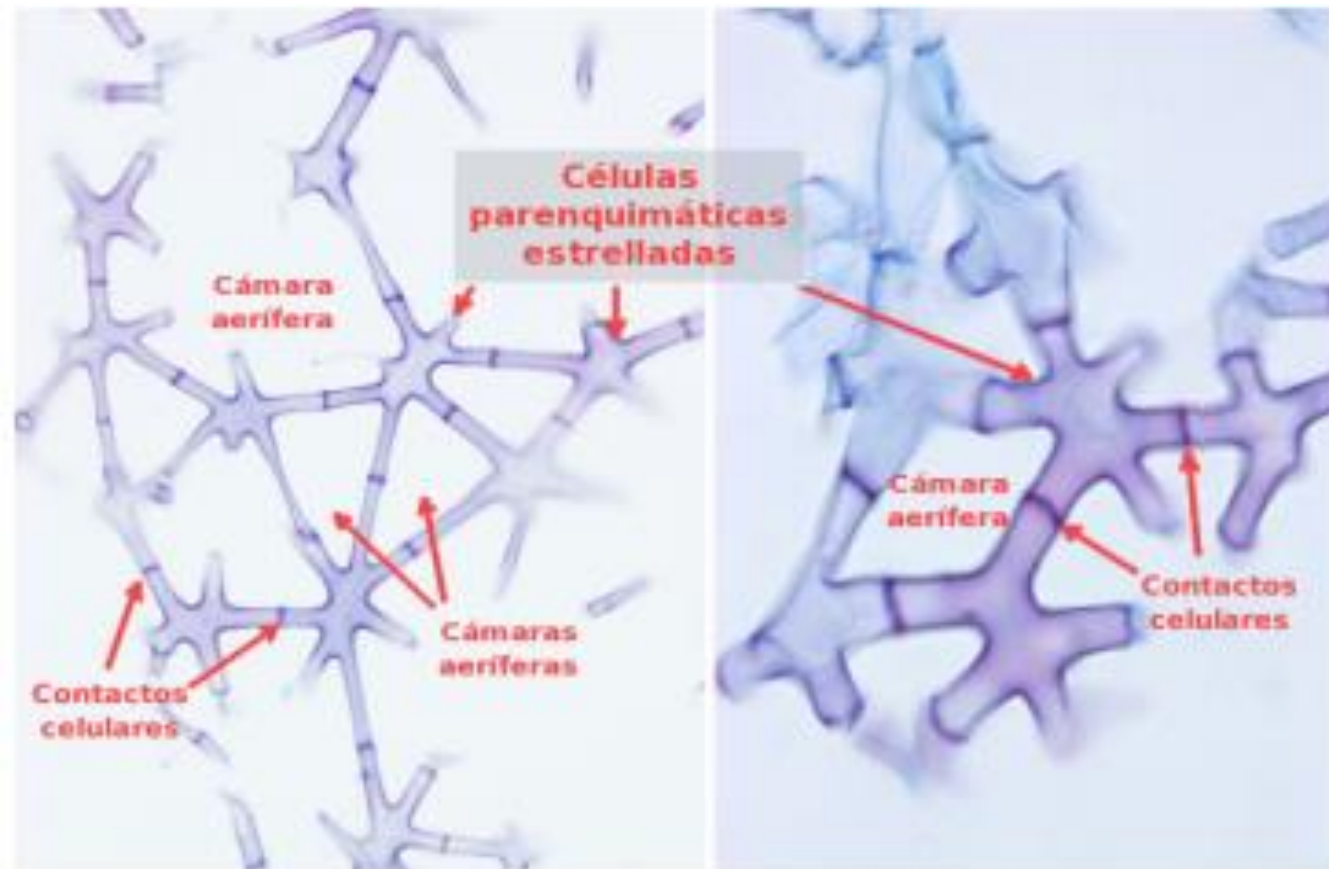


SISTEMA FUNDAMENTAL



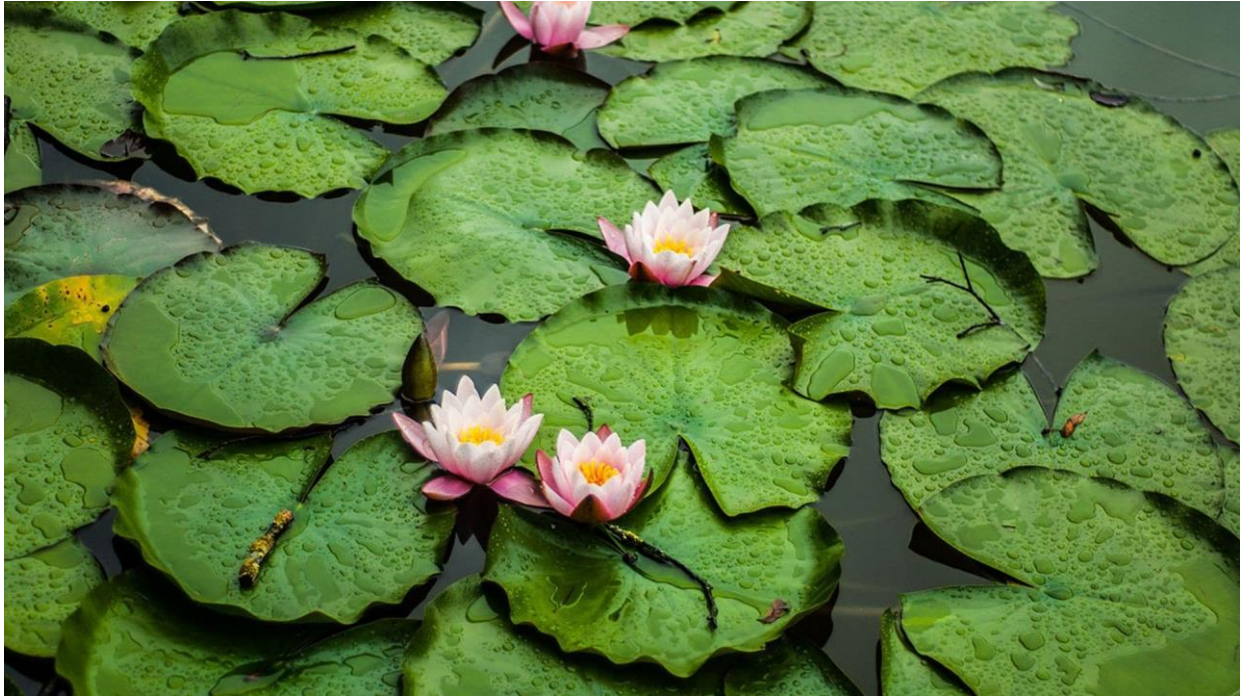
SISTEMA FUNDAMENTAL

PARÉNQUIMA AERÍFERO



SISTEMA FUNDAMENTAL

PARÉNQUIMA AERÍFERO



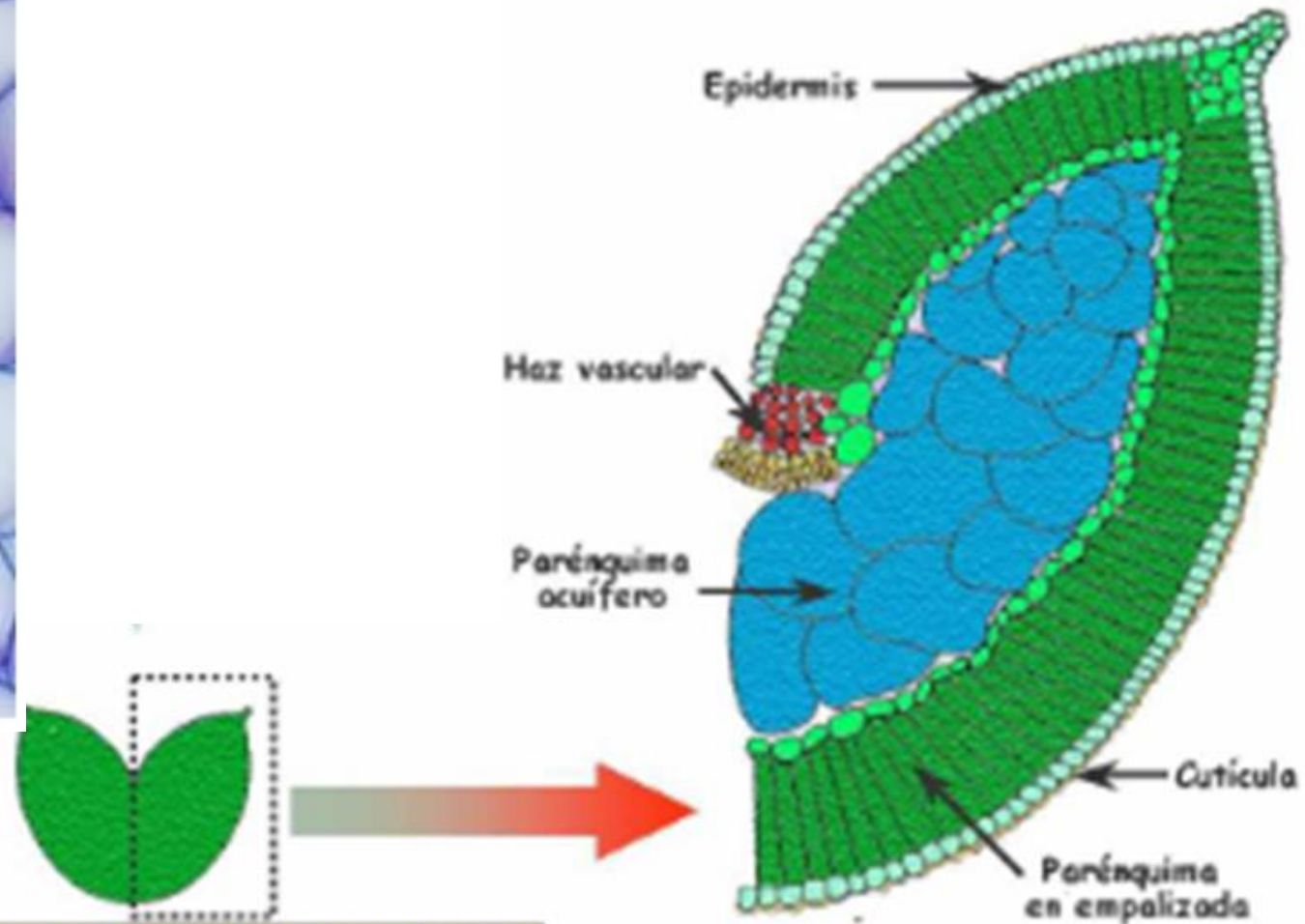
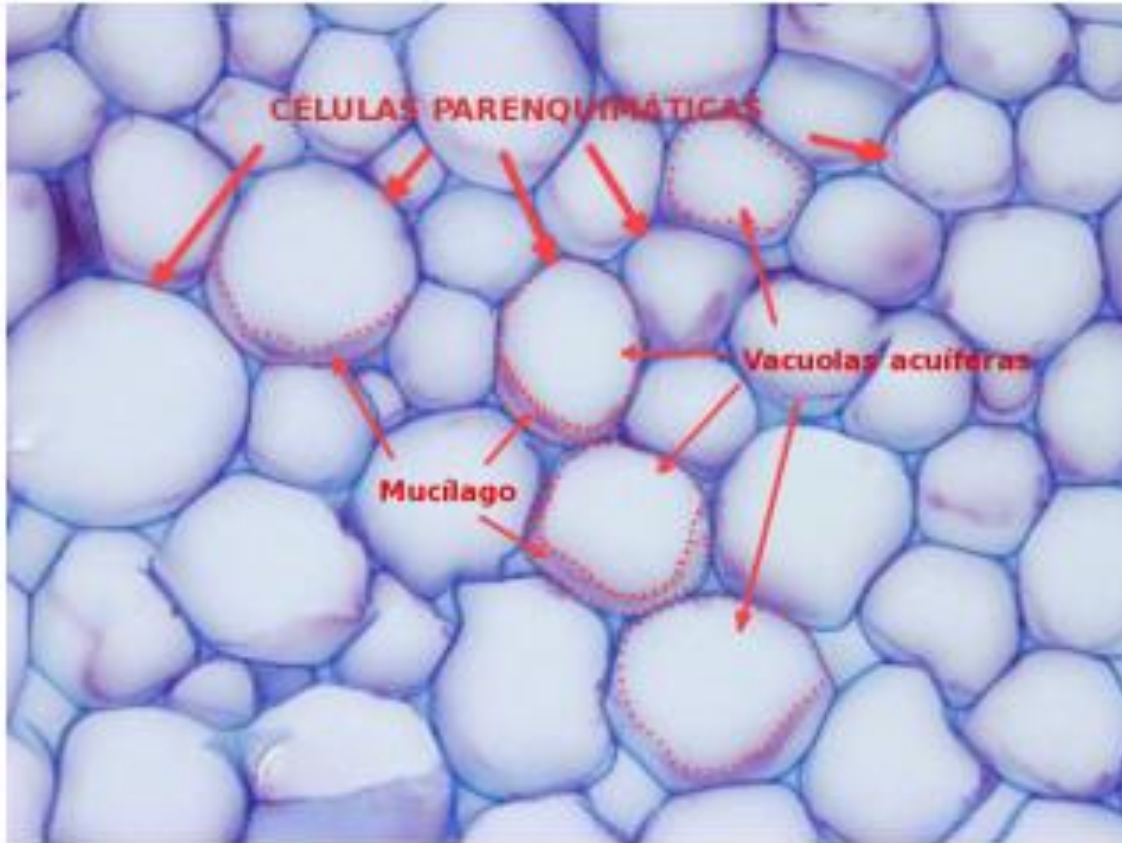
Nenufar nymphaea



Elodea canadensis

SISTEMA FUNDAMENTAL

PARÉNQUIMA ACUÍFERO



Corte de una hoja suculenta de *S. kali*

SISTEMA FUNDAMENTAL

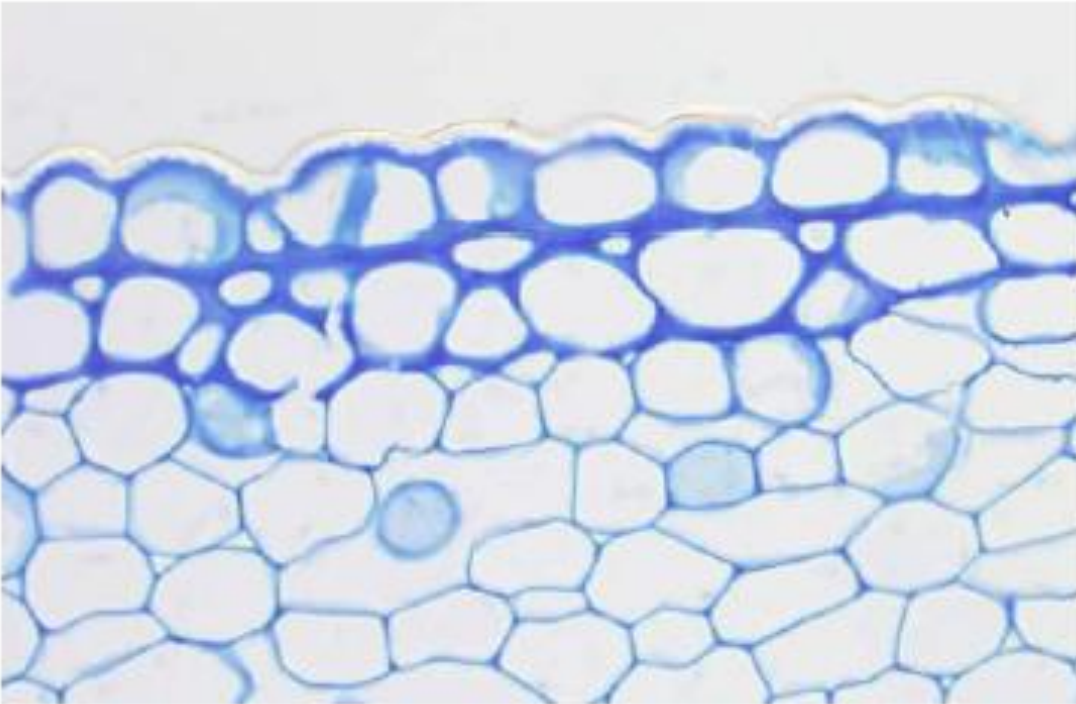
PARÉNQUIMA ACUÍFERO



SISTEMA FUNDAMENTAL

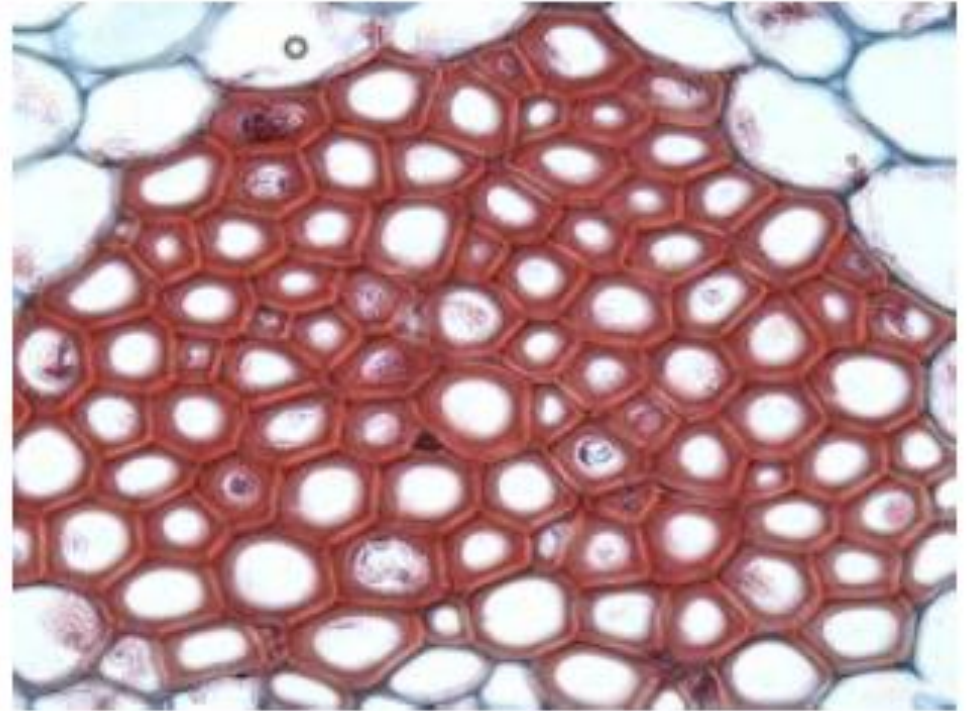
TECIDOS DE SOSTÉN

COLÉNQUIMA



Sostén en plantas xoves e en herbáceas
Debaixo epidermis en talo e follas

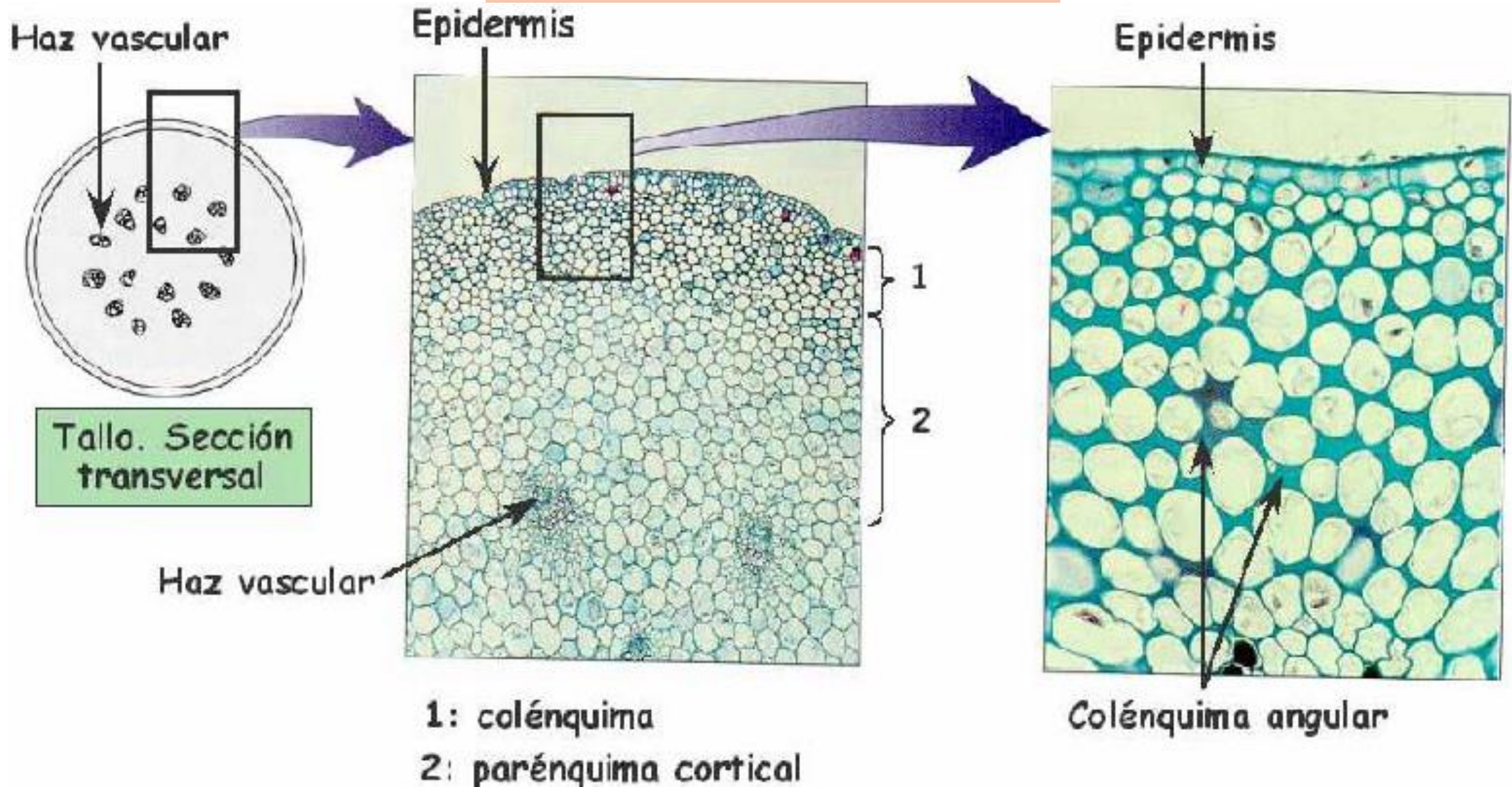
ESCLERÉNQUIMA



Sostén en plantas adultas
Células mortas (lignificadas) → esclereidas e fibras

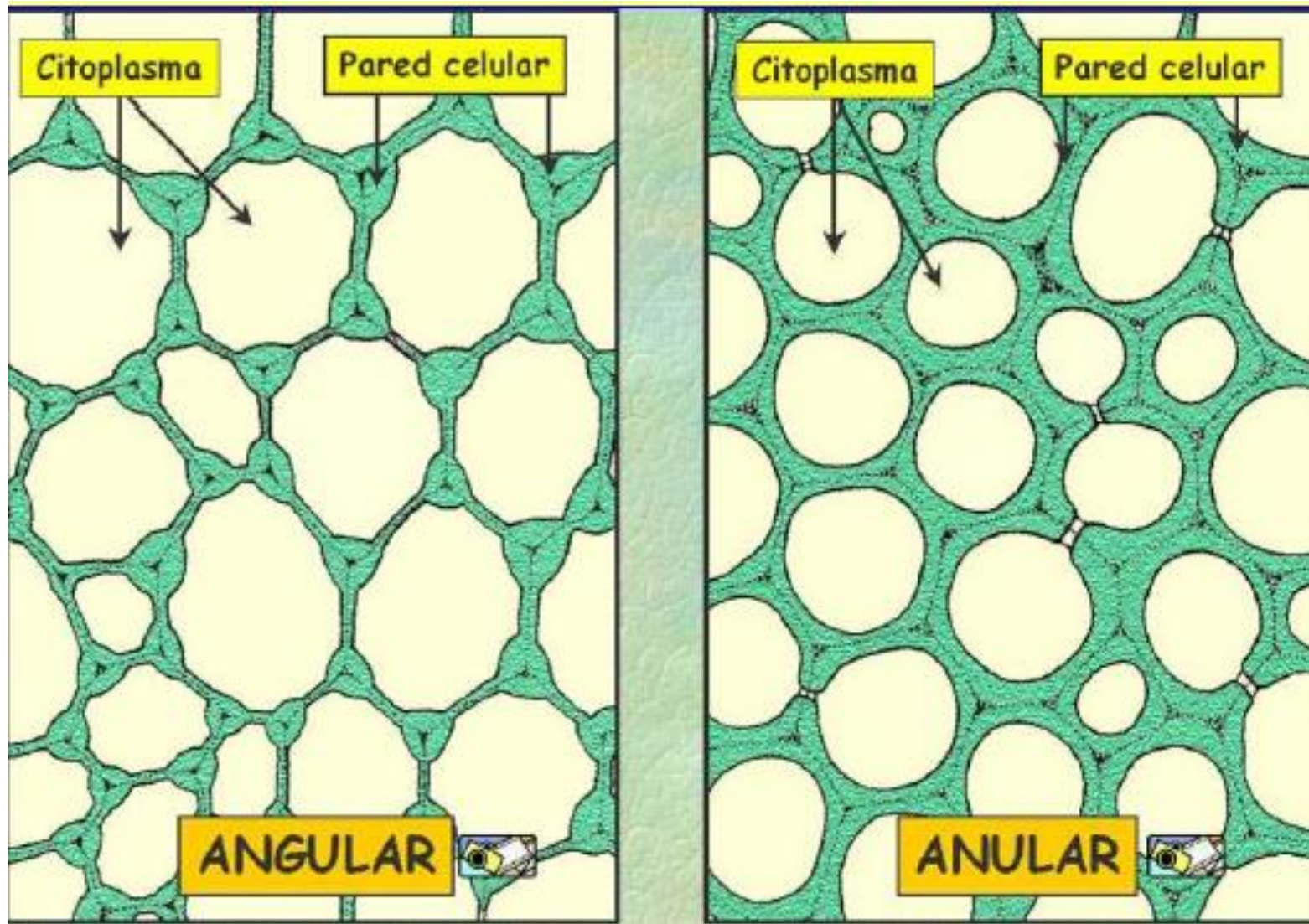
SISTEMA FUNDAMENTAL

COLÉNQUIMA



SISTEMA FUNDAMENTAL

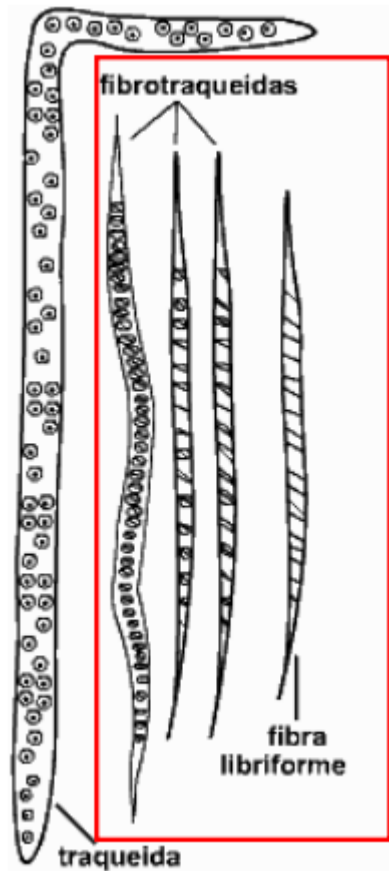
COLÉNQUIMA



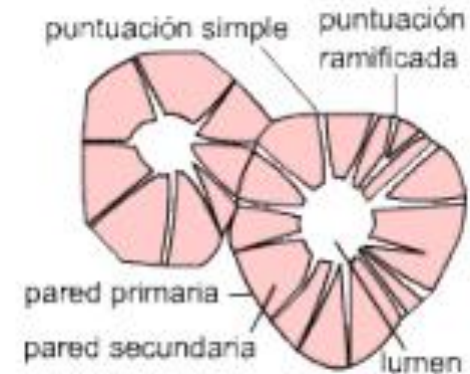
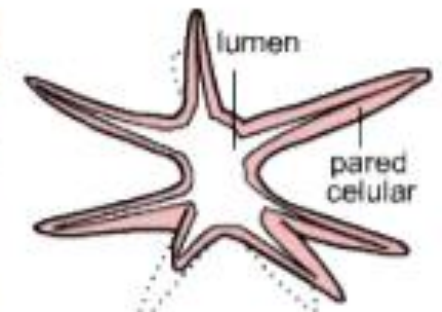
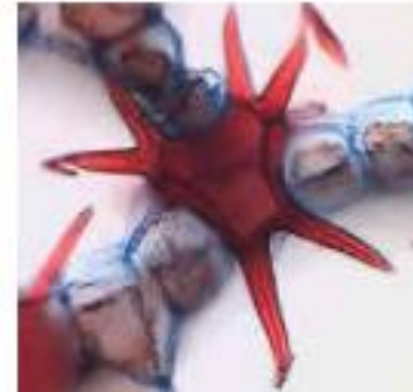
SISTEMA FUNDAMENTAL

ESCLERÉNQUIMA

FIBRAS

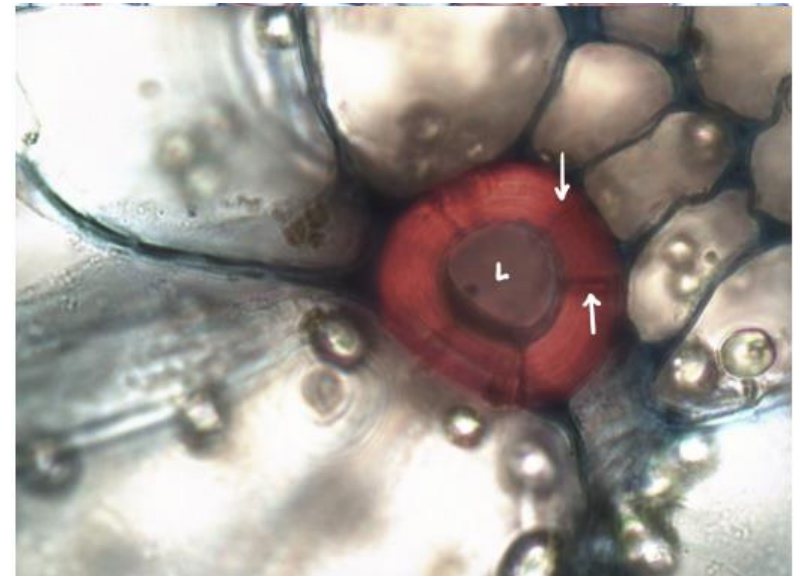
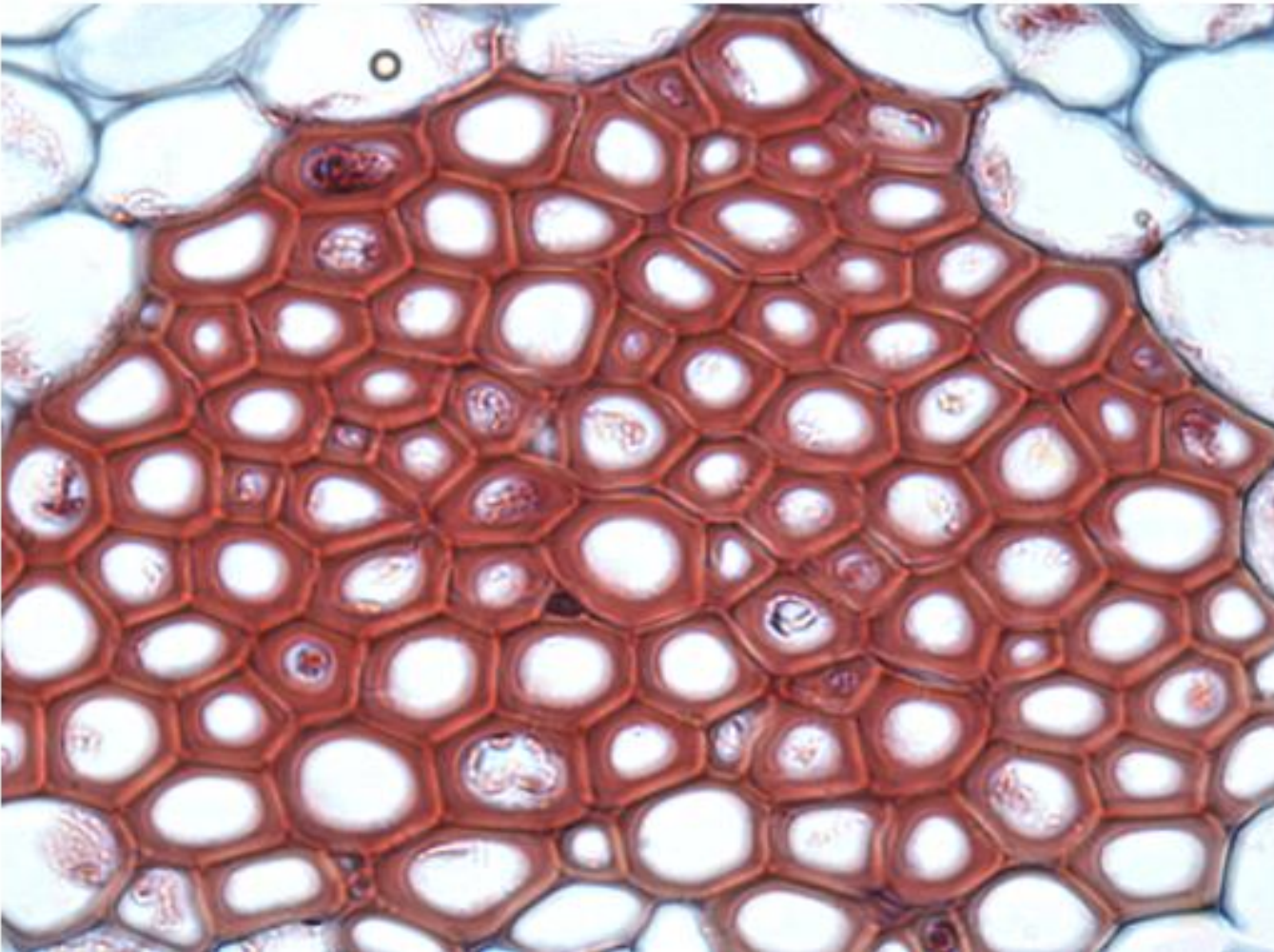


ESCLEREIDAS



SISTEMA FUNDAMENTAL

ESCLERÉNQUIMA



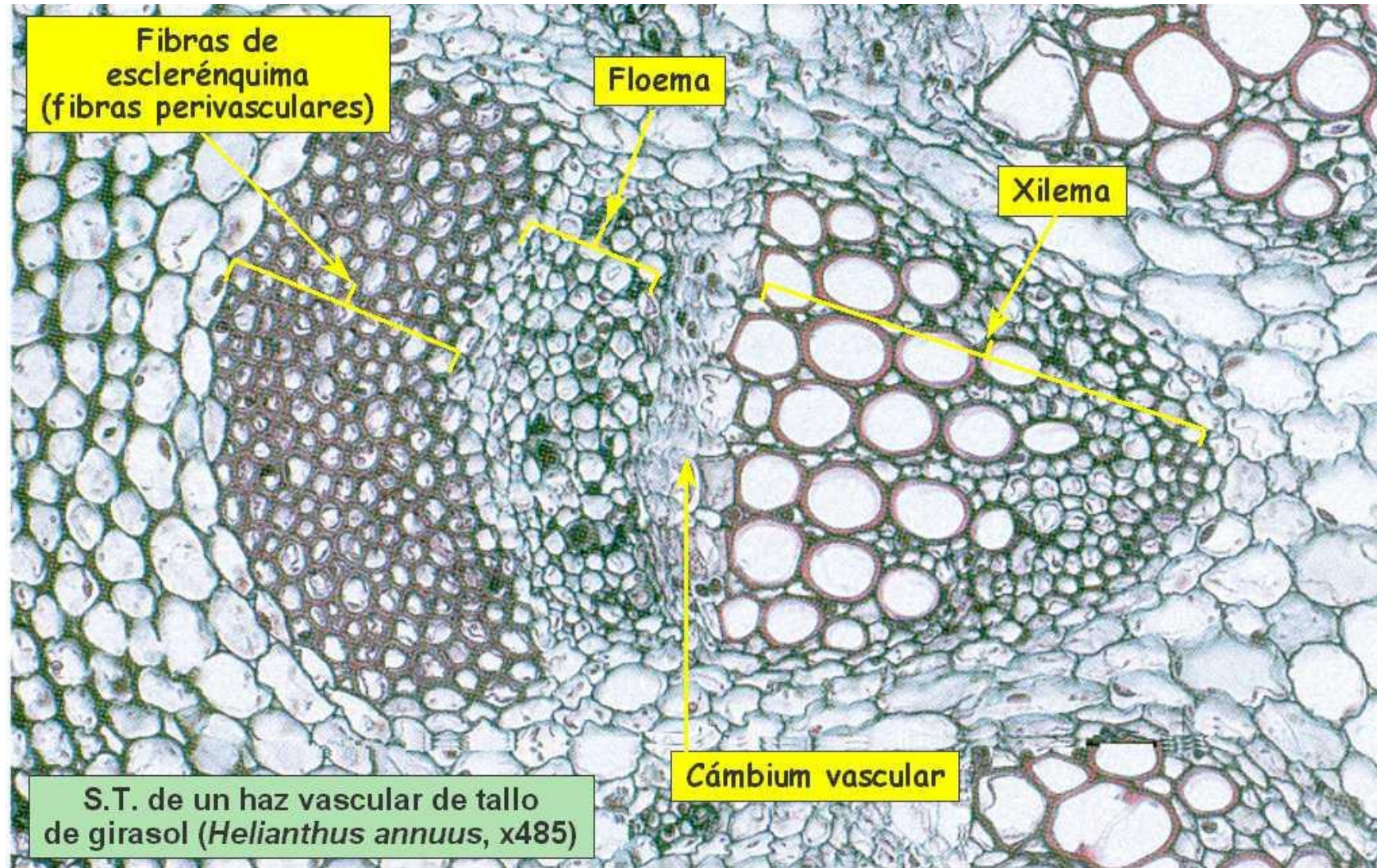
SISTEMA FUNDAMENTAL

TECIDOS DE SOSTÉN

TECIDO	CARACTERÍSTICO DE	CÉLULAS QUE O FORMAN	TECIDO VIVO OU MORTO	LOCALIZACIÓN
Colénquima				
Esclerénquima				

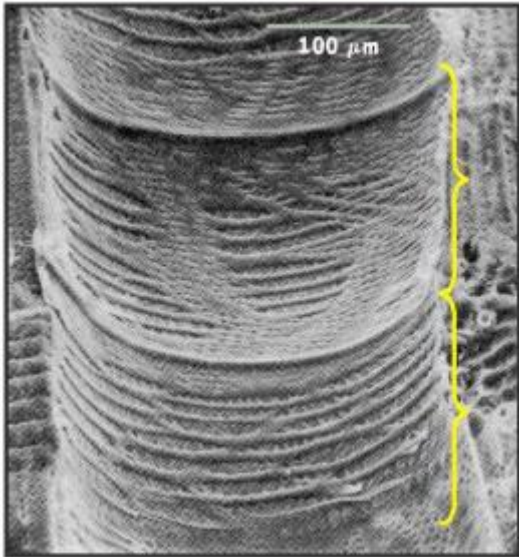
SISTEMA VASCULAR

XILEMA → VASOS LEÑOSOS
FLOEMA → VASOS LIBERIANOS



SISTEMA VASCULAR

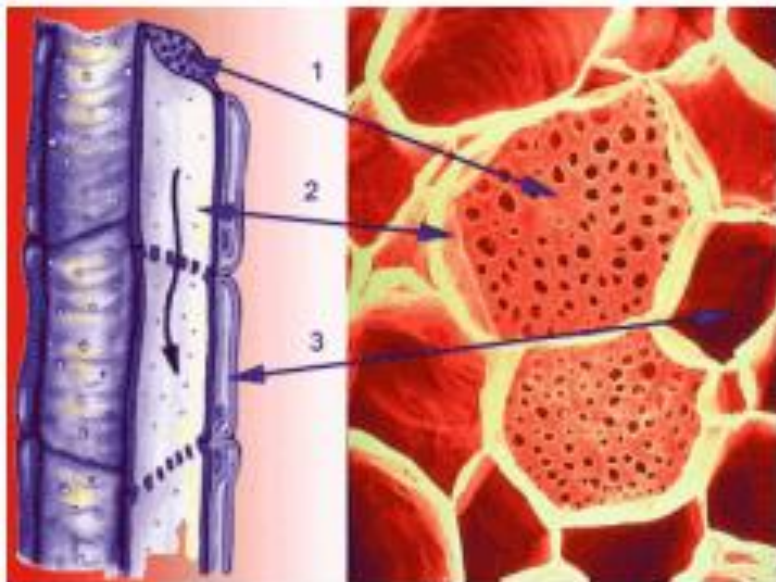
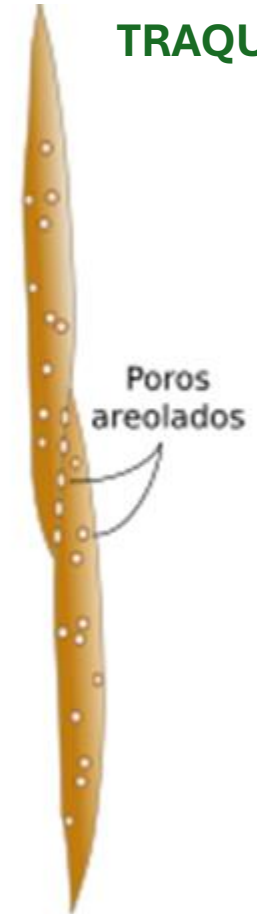
XILEMA



TRÁQUEAS



TRAQUEIDAS



TRÁQUEAS =

Elementos de los vasos

Principal elemento conductor de las angiospermas

Células cortas que forman filas que crean largos tubos

Diámetro interno grande y paredes más finas

Poros pequeños y más numerosos

Tienen placas perforadas

Mayor eficiencia en la conducción de agua

Forman tubos

Traqueidas

Principal elemento conductor de helechos y gimnospermas

Son células alargadas con los extremos solapados

Diámetro interno pequeño y paredes más gruesas

Poros grandes y menos numerosos

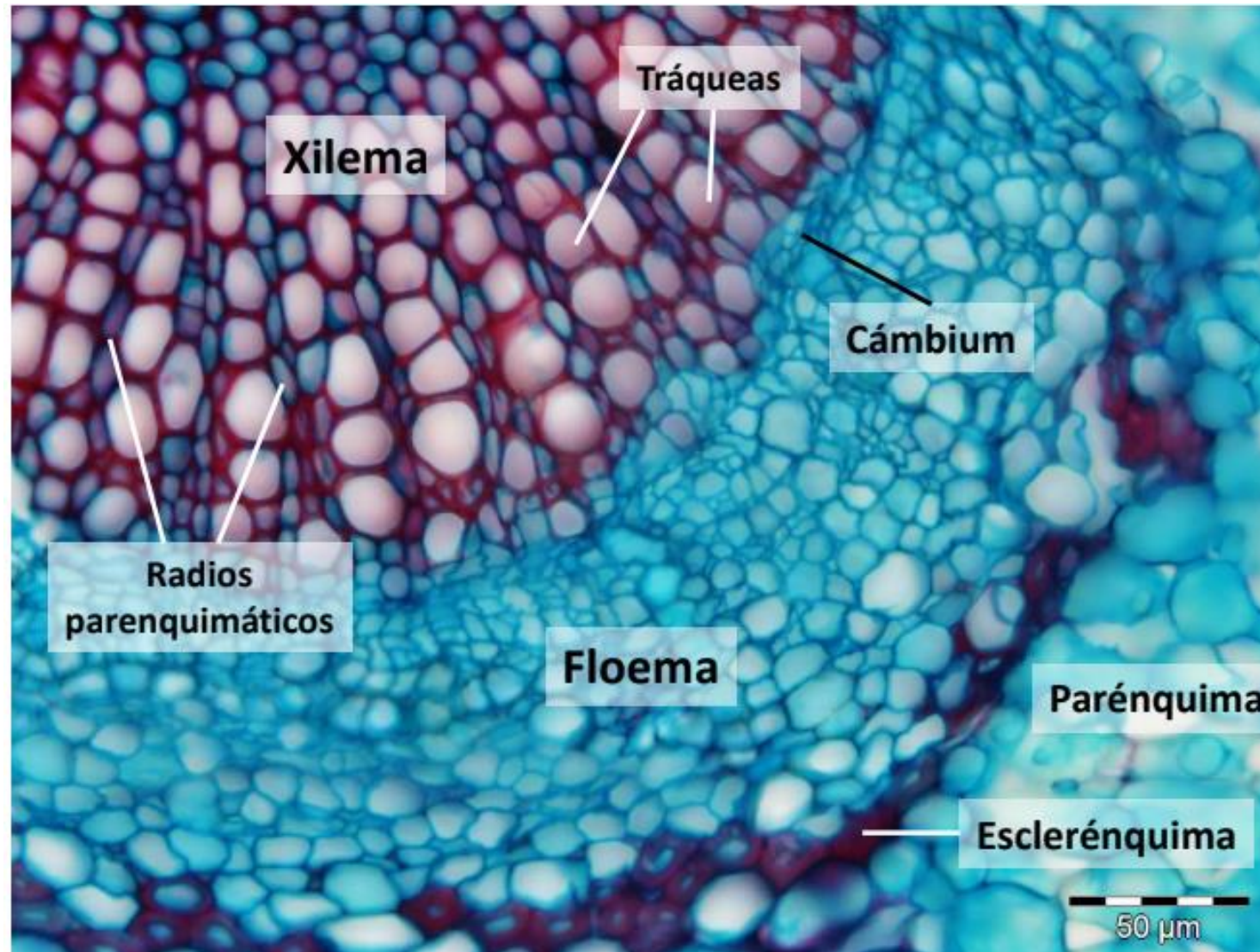
No tienen placas perforadas

Menos eficiencia en la conducción de agua

No forman tubos

SISTEMA VASCULAR

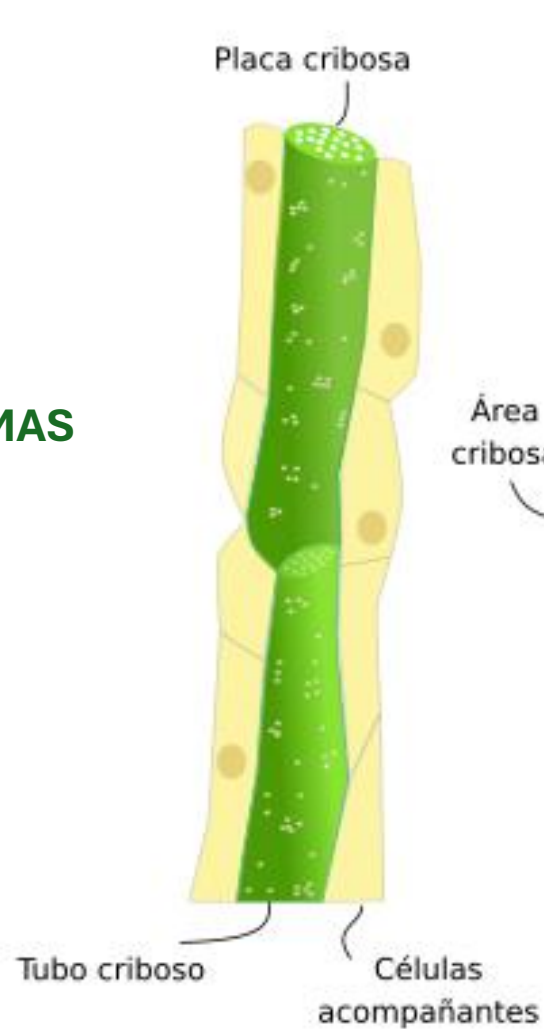
FLOEMA



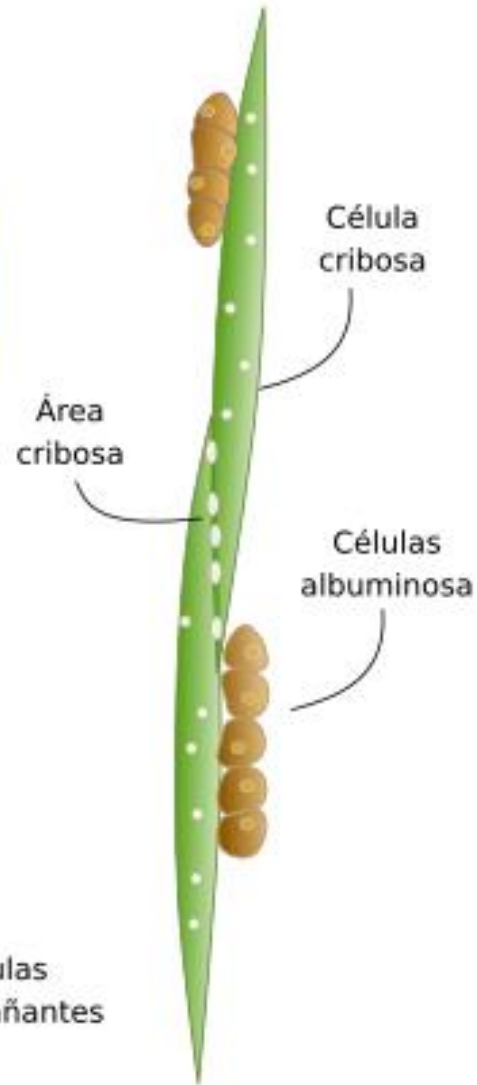
SISTEMA VASCULAR

FLOEMA

ANGIOSPERMAS

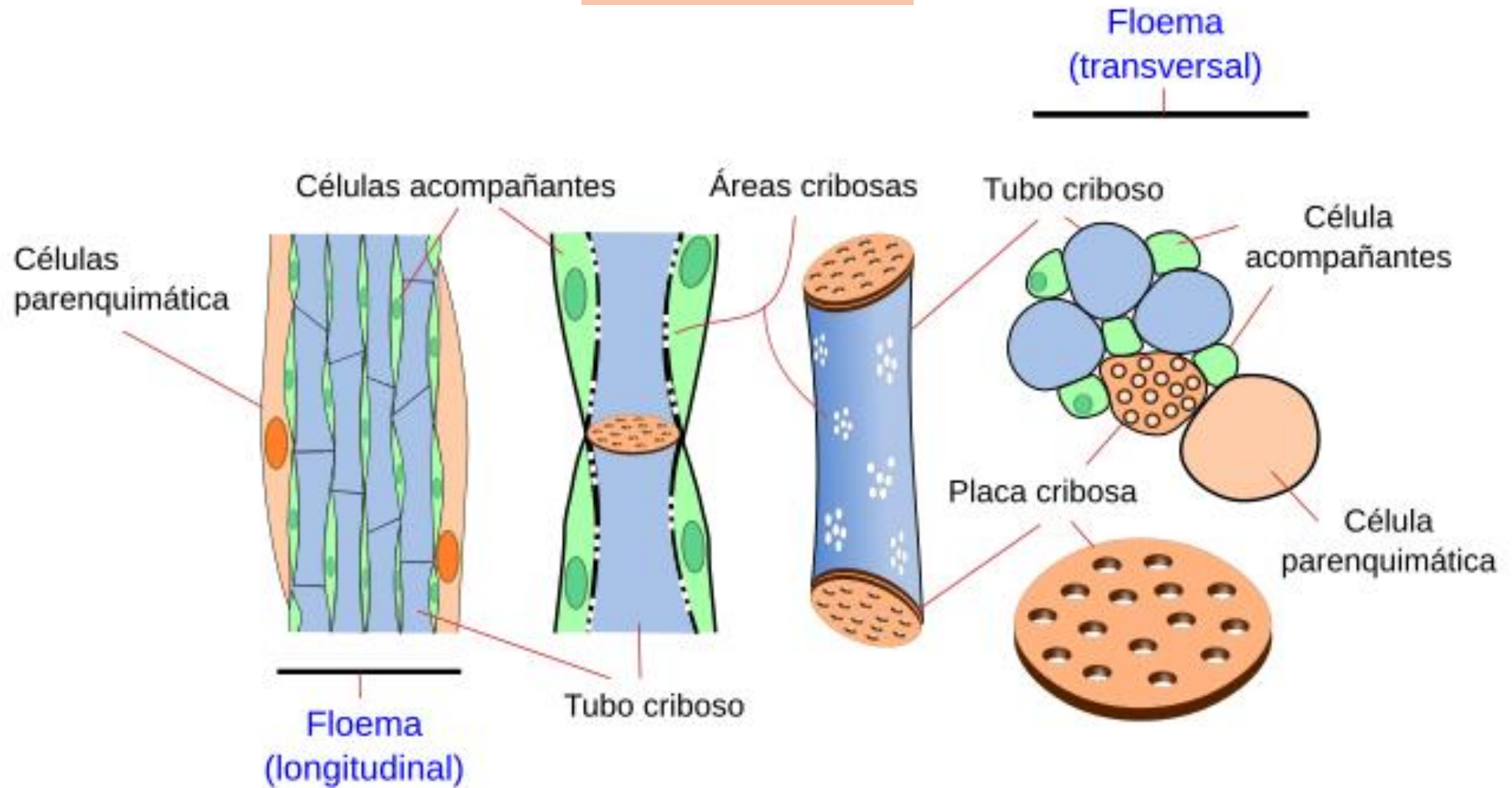


GIMNOSPERMAS /
VASCULARES SIN
SEMILLA



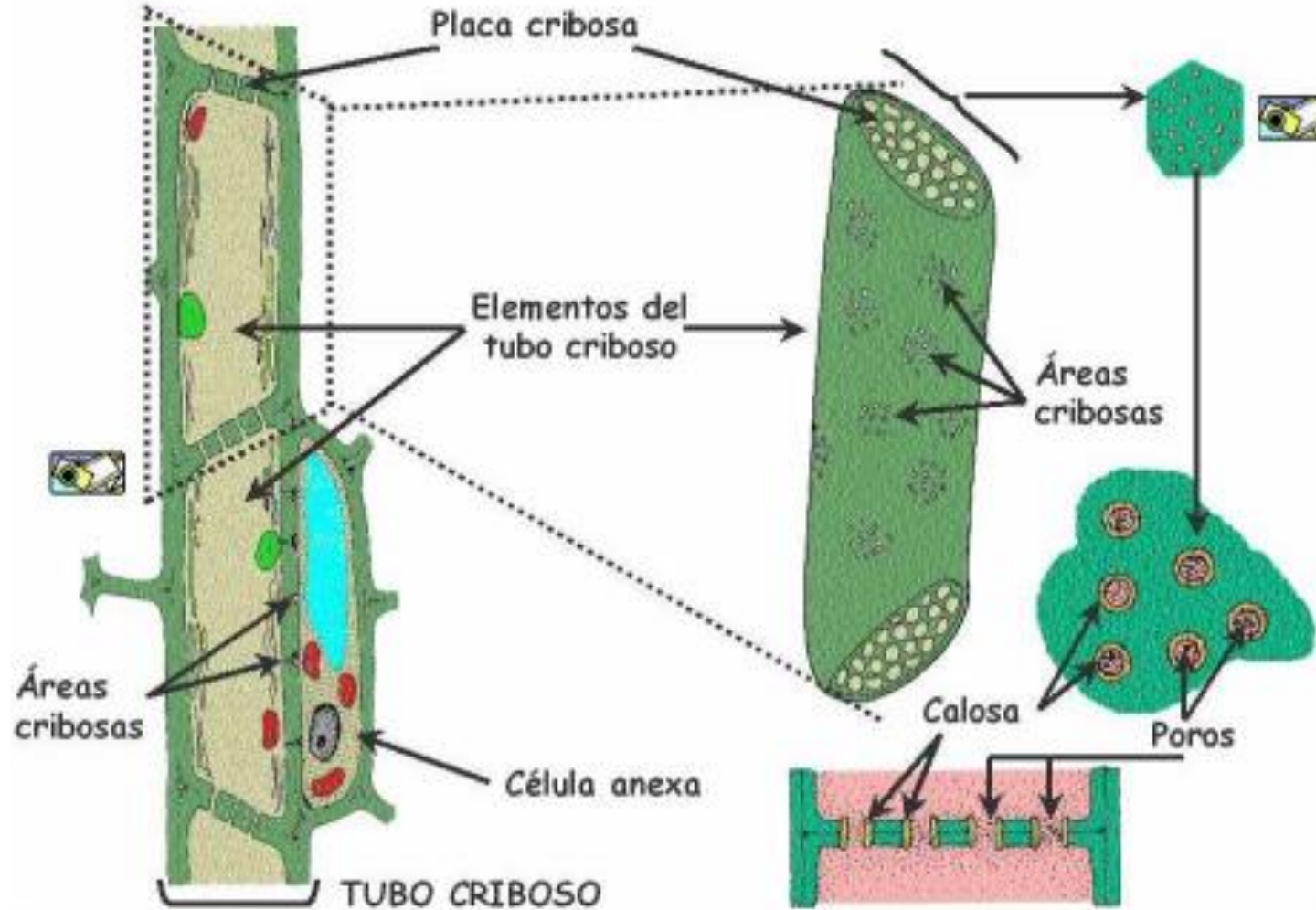
SISTEMA VASCULAR

FLOEMA

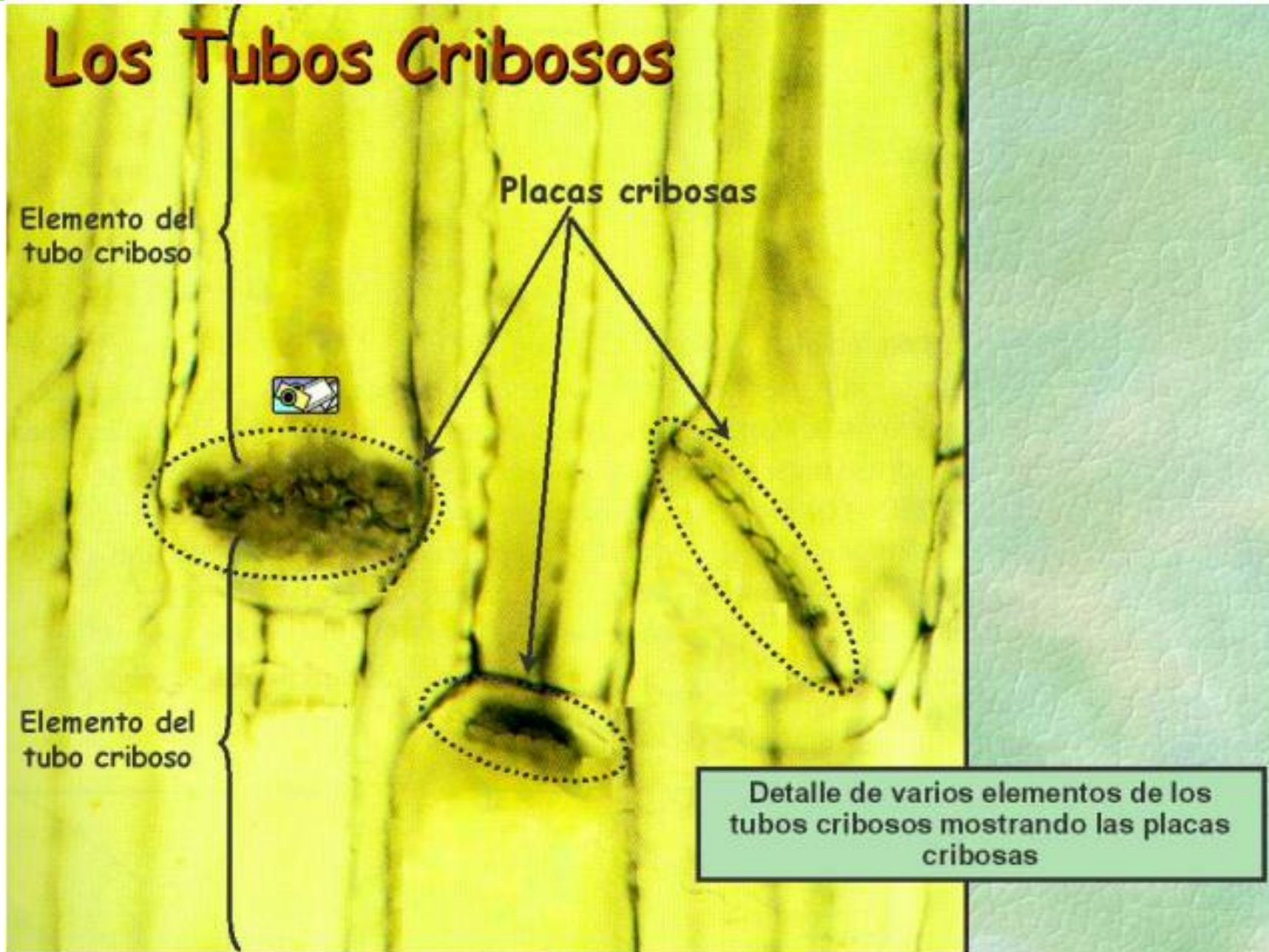


SISTEMA VASCULAR

FLOEMA



SISTEMA VASCULAR



SISTEMA DÉRMICO → EPIDERMIS

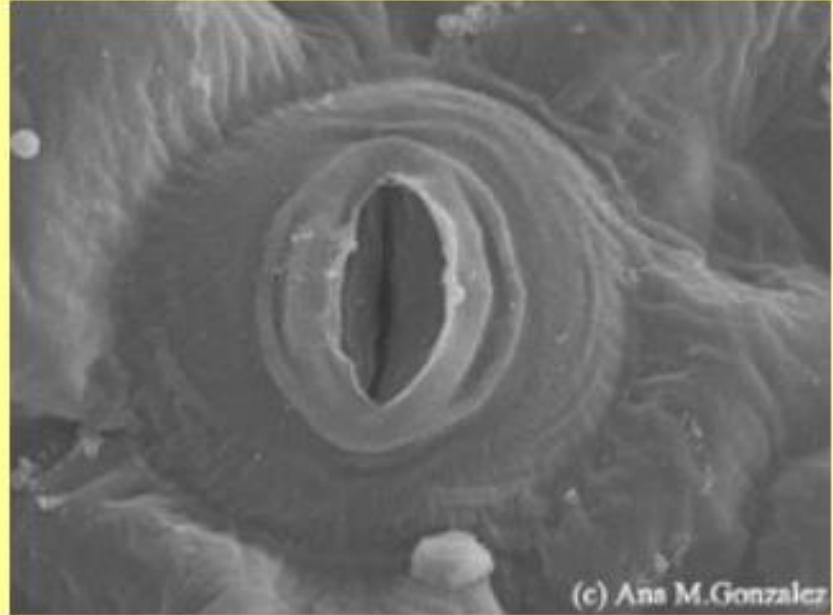
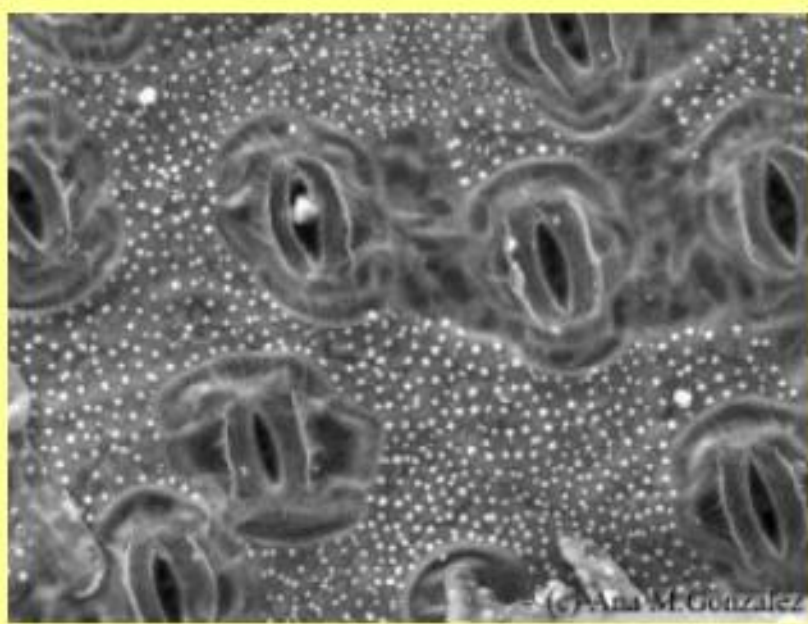


- 1 capa de células vivas sin cloroplastos
- Cutícula
- Funcións:
 - Evita a desecación
 - Regulación intercambio gases
 - Formación de pelos absorbentes → savia bruta

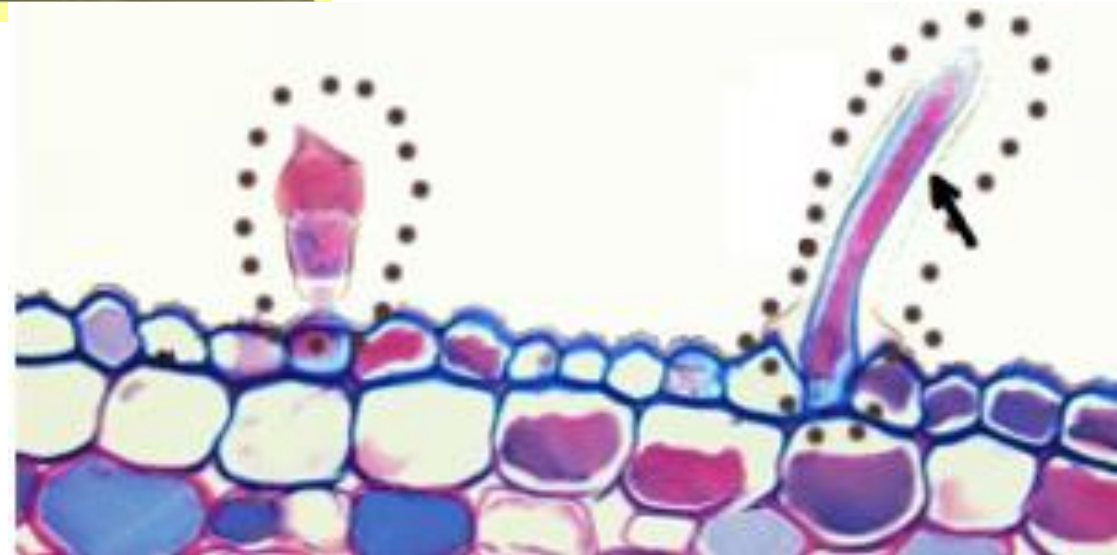


SISTEMA DÉRMICO → EPIDERMIS

estomas



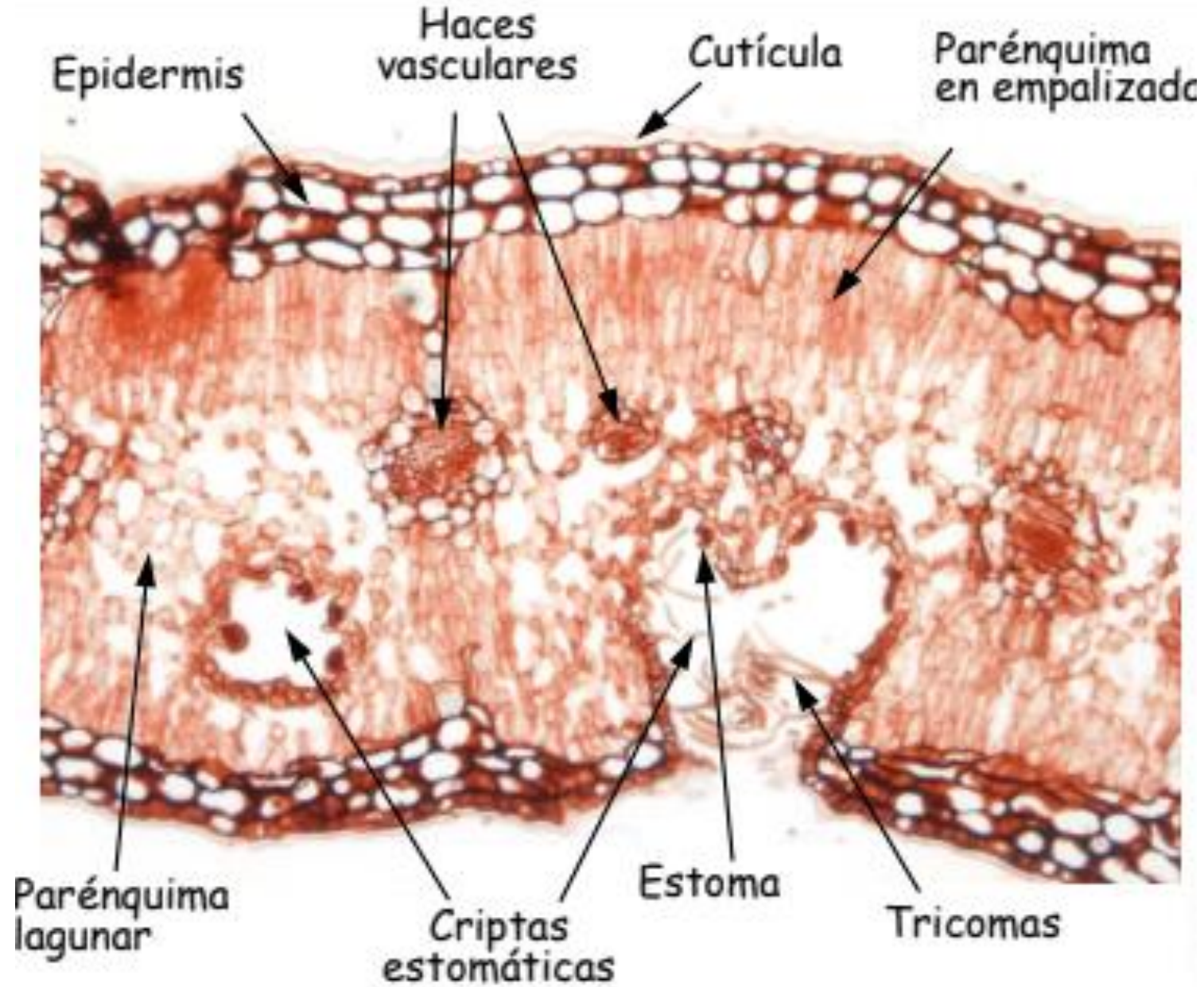
tricomas



SISTEMA DÉRMICO → EPIDERMIS



SISTEMA DÉRMICO



SISTEMA DÉRMICO → SUBER

