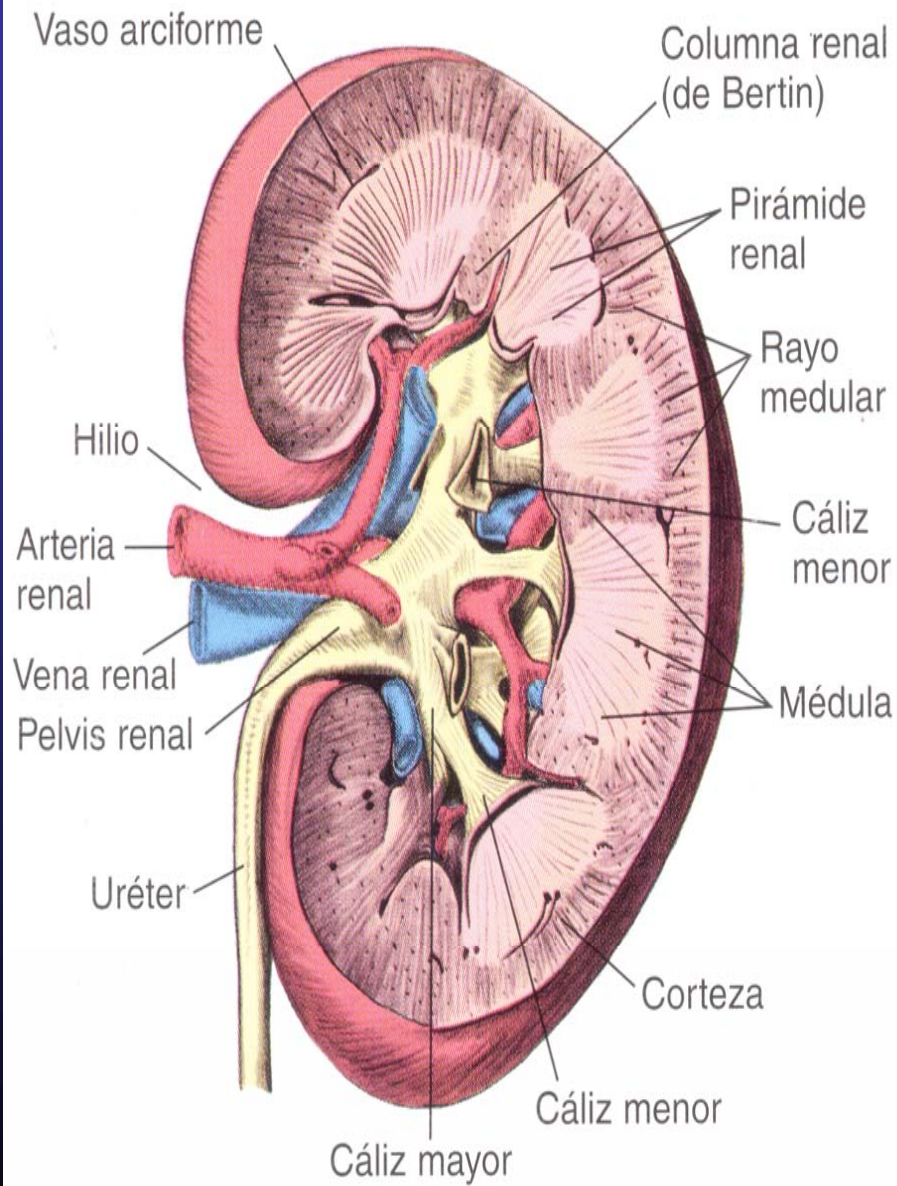
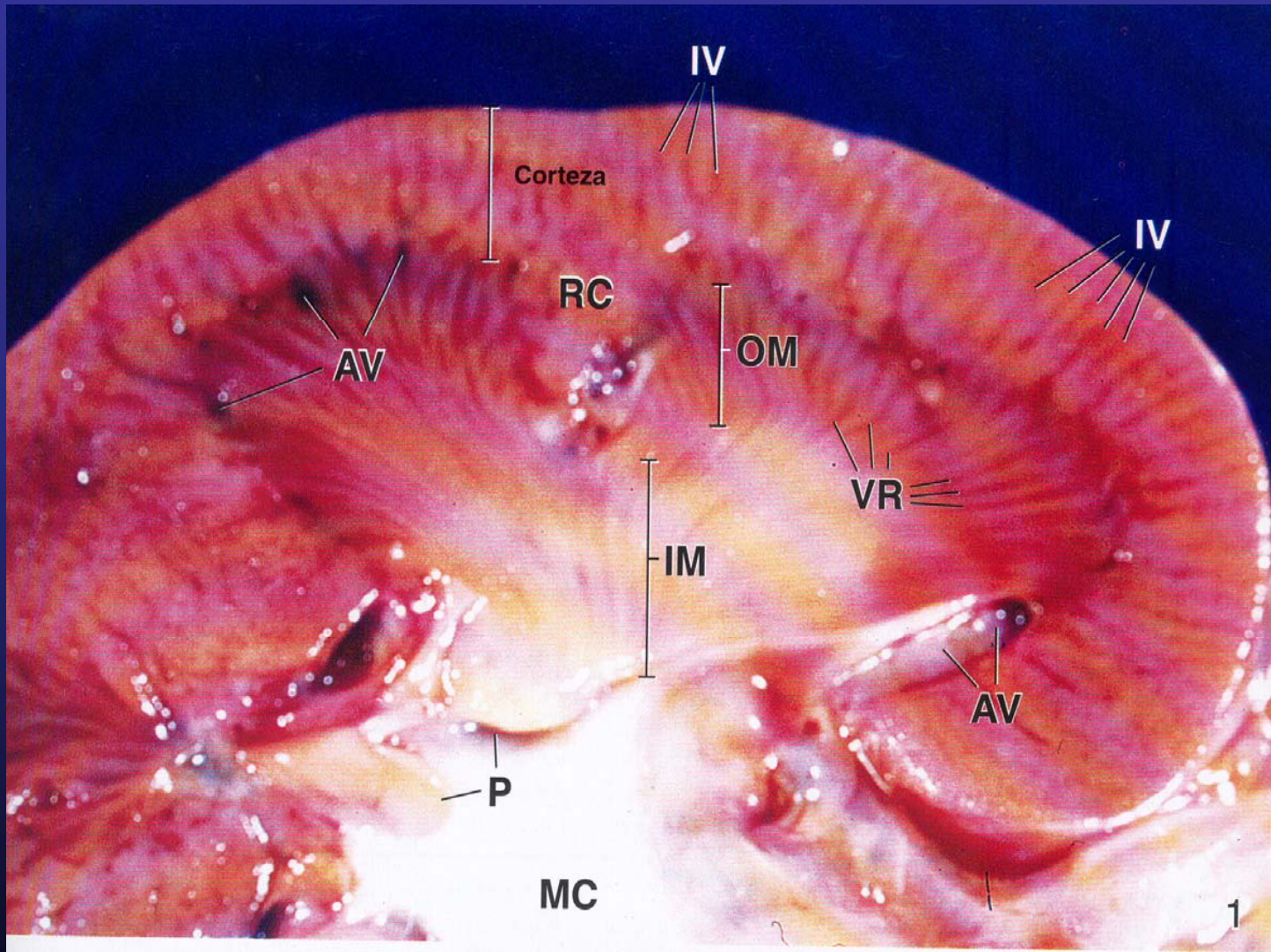
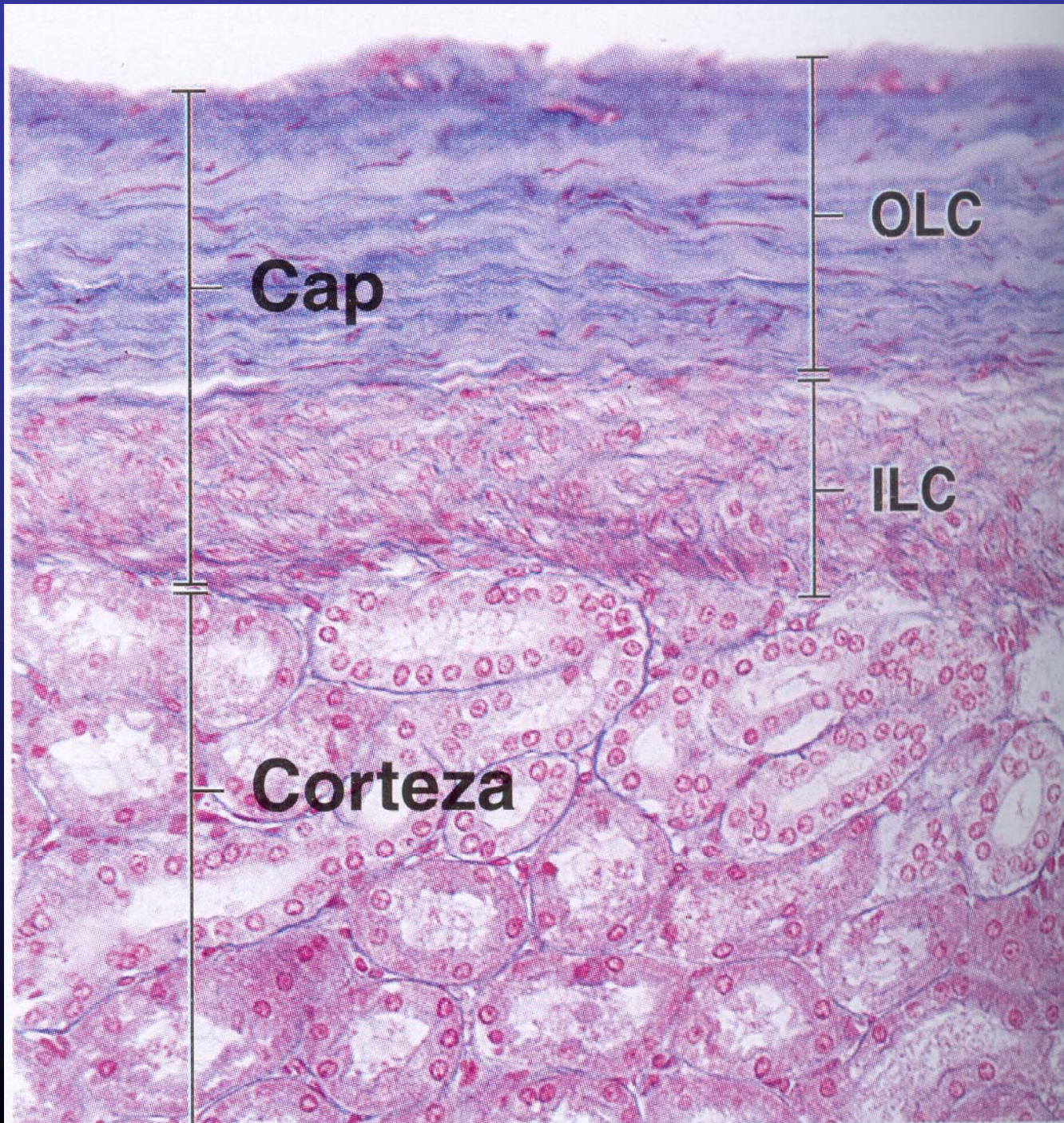


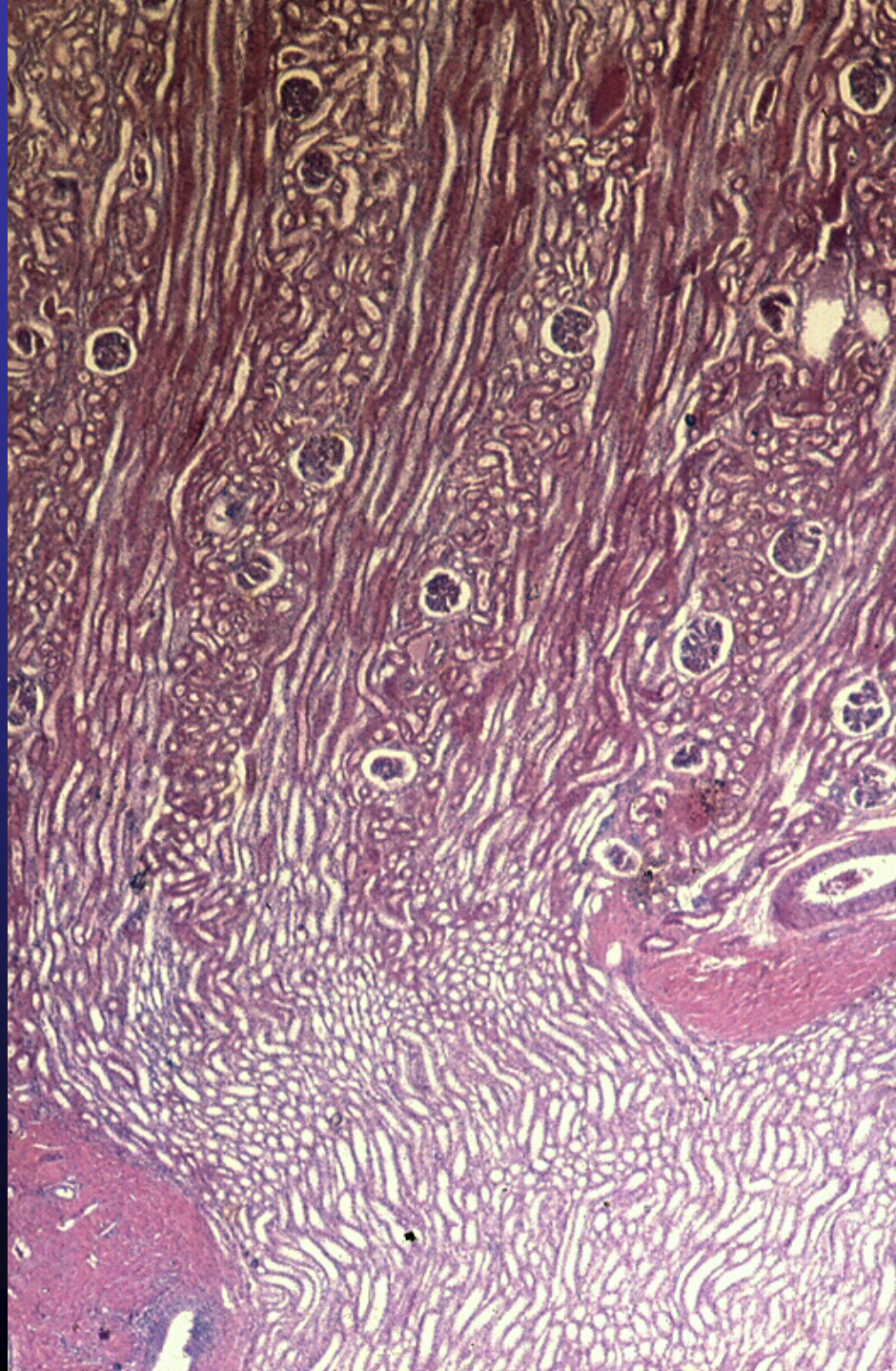
Generalidades del aparato urinario:

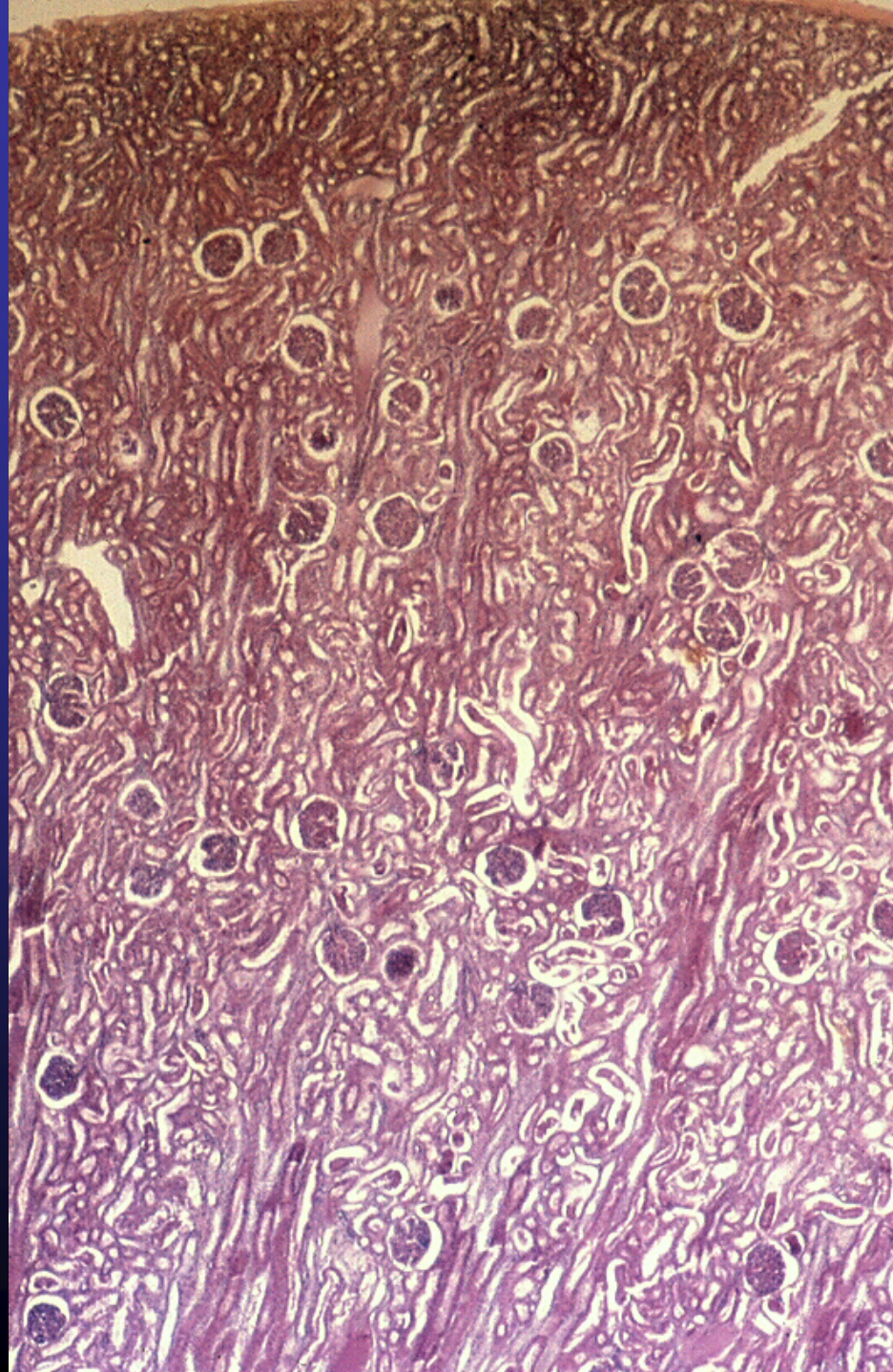
Los riñones (producen orina), los ureteres, la conducen a la vejiga (donde se almacena temporalmente) y la uretra, la evacúa. La orina en un principio es un ultrafiltrado de la sangre que las células renales modifican por reabsorción selectiva y secreción específica. La orina definitiva contiene agua y electrolitos, urea, ác. úrico, creatinina y productos de la degradación de diversas sustancias. Conserva: agua, electrolitos esenciales y metabolitos. Elimina deshechos del metabolismo. Regula y mantiene la composición y volumen del líquido extracelular. Mantiene equilibrio ácido-base excretando H cuando los líquidos corporales se tornan ácido o bicarbonato cuando éstos se tornan alcalinos. Como órgano endocrino: sintetiza y secreta la hormona eritropoyetina, que regula la formación de eritrocitos (eritropoyesis) en respuesta a una $> O_2$ en la sangre. Sintetiza y secreta renina (proteasa ácida), esta enzima participa en el control de la tensión arterial y del vol. sanguíneo. Hidroliza la 25-OH vitamina D_3 (precursor producido en el hígado) hacia su forma hormonal activa $1.25-(OH)_2$ Vitamina D_3 (regula concentración de Ca en el plasma (calcemia)).

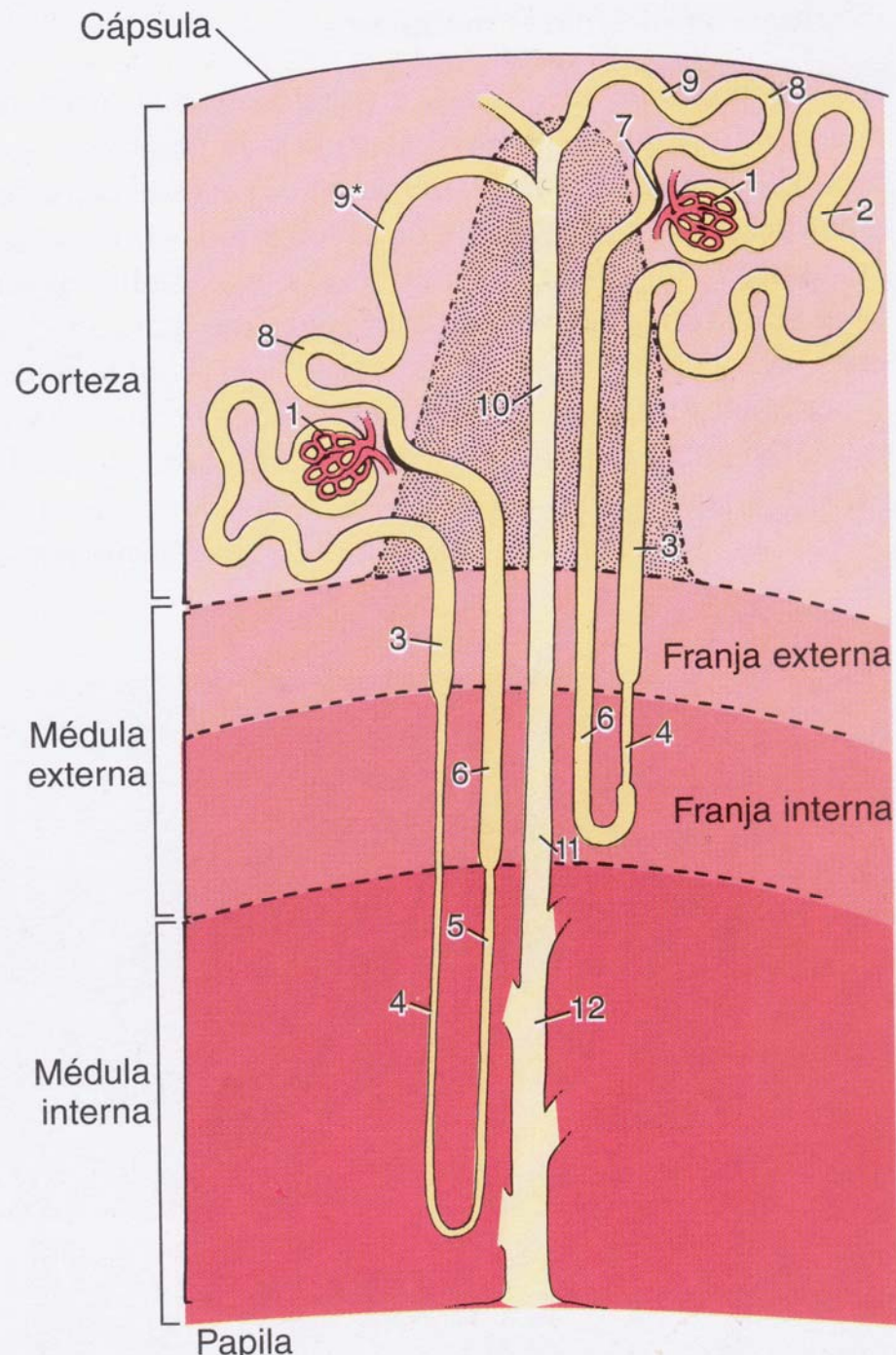


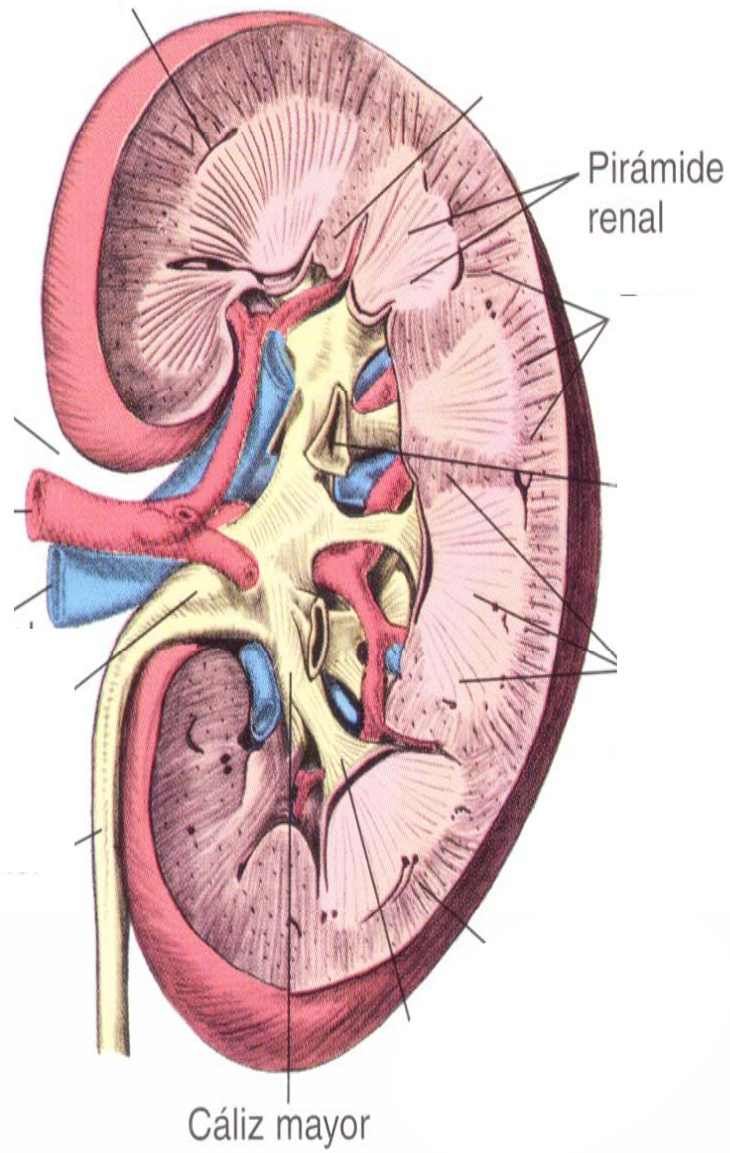


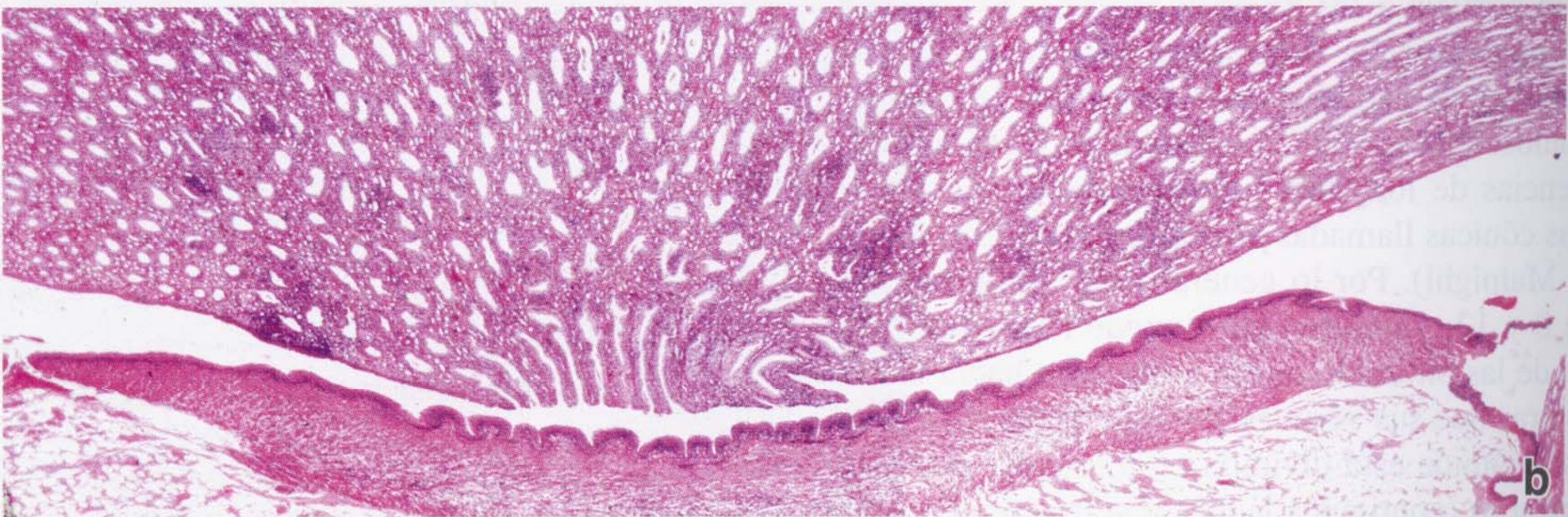
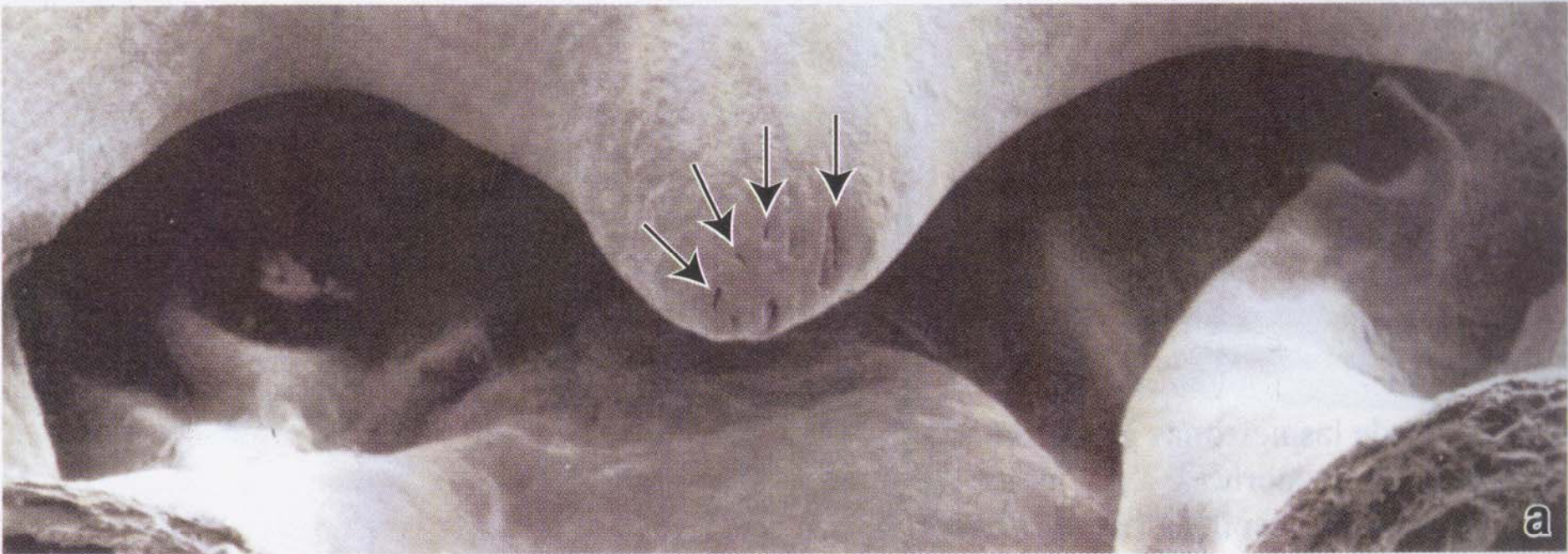


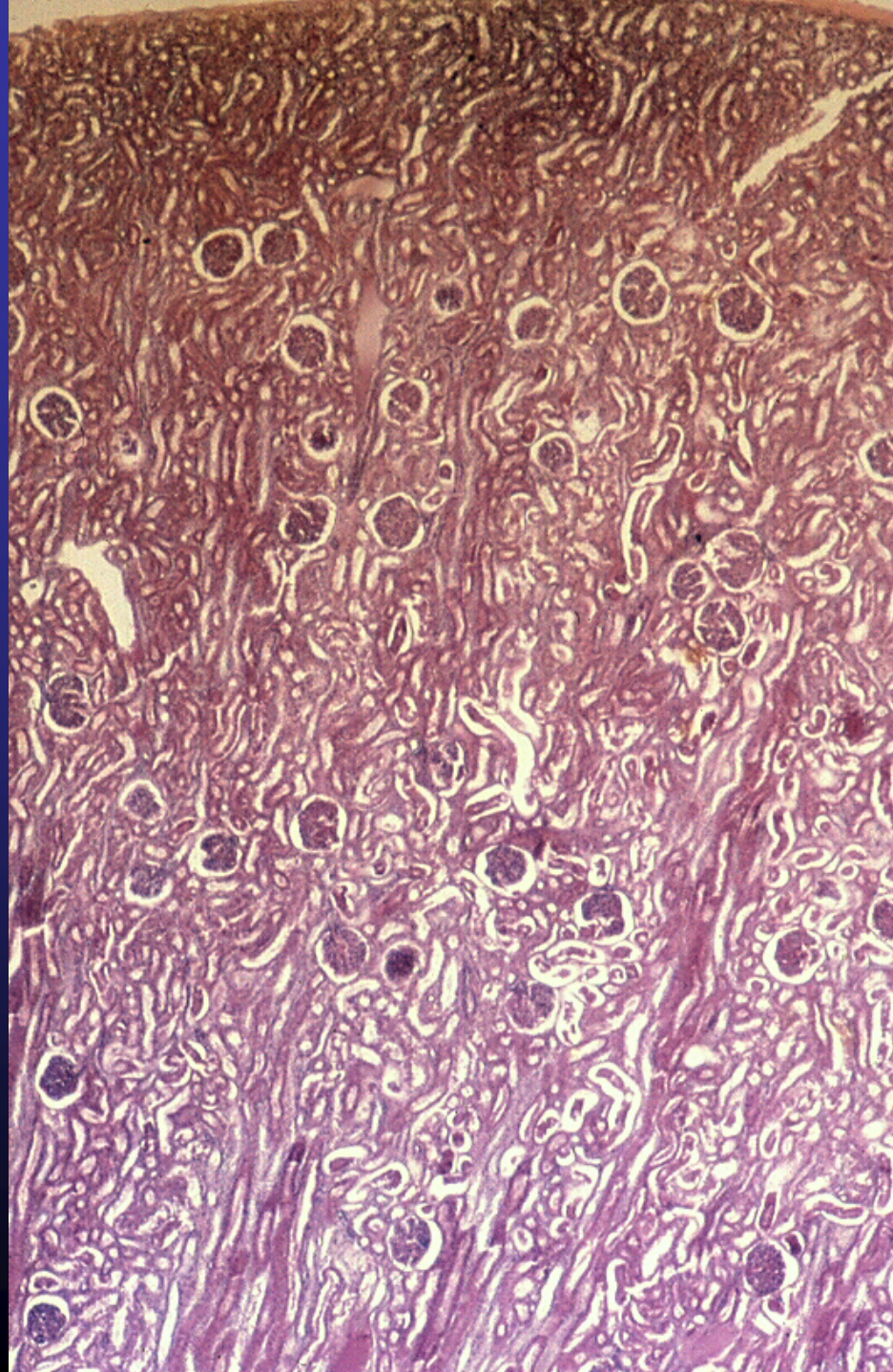


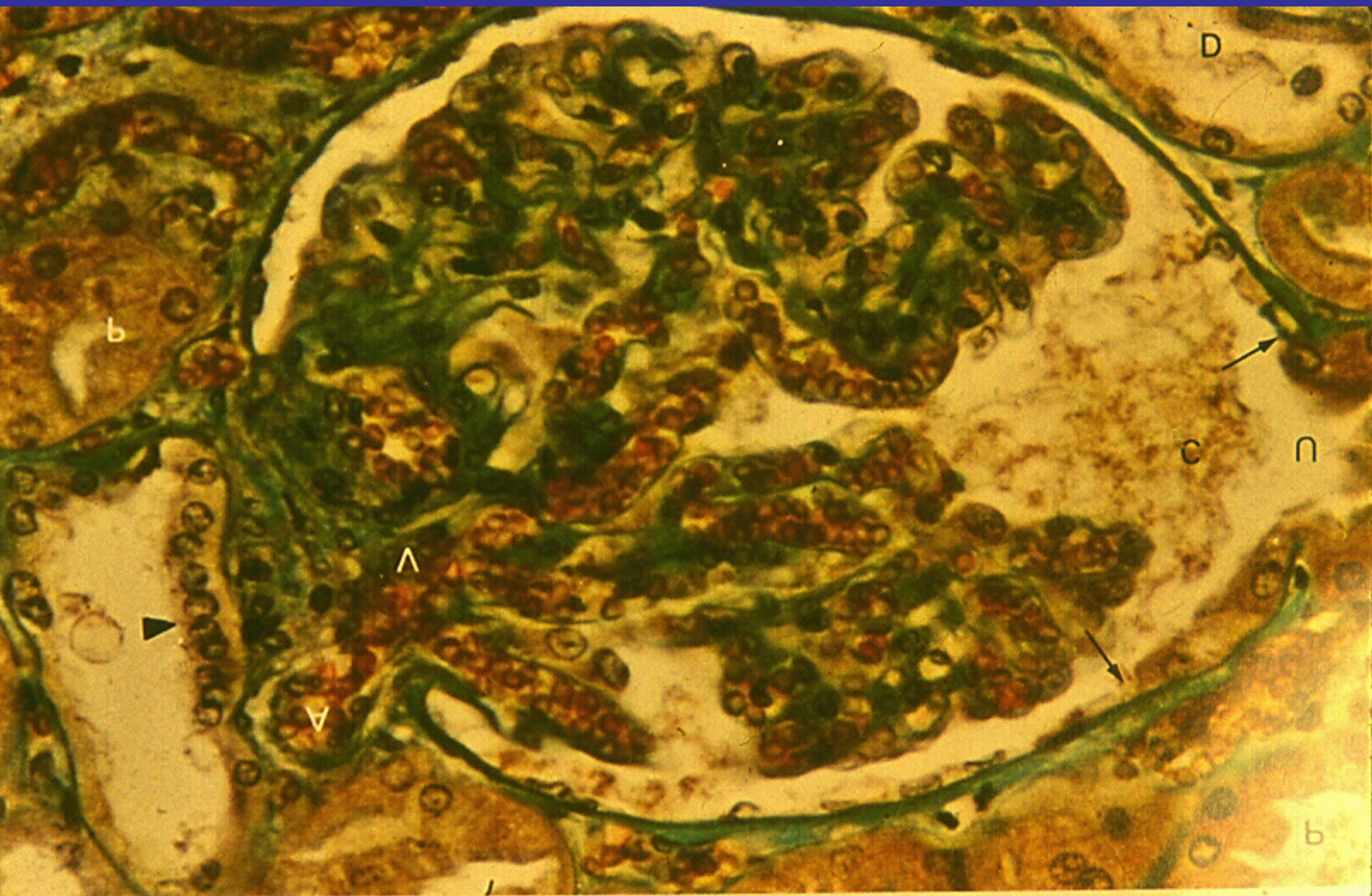


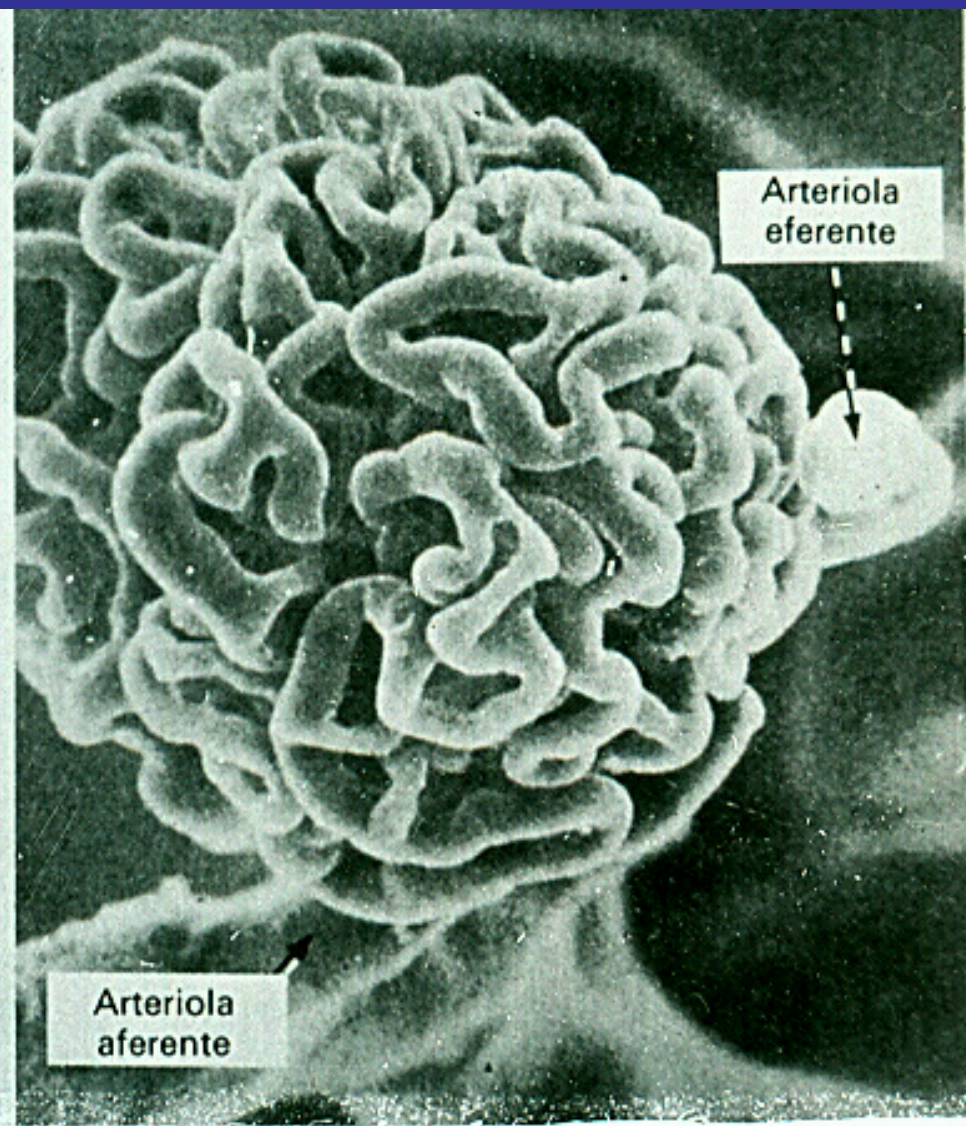
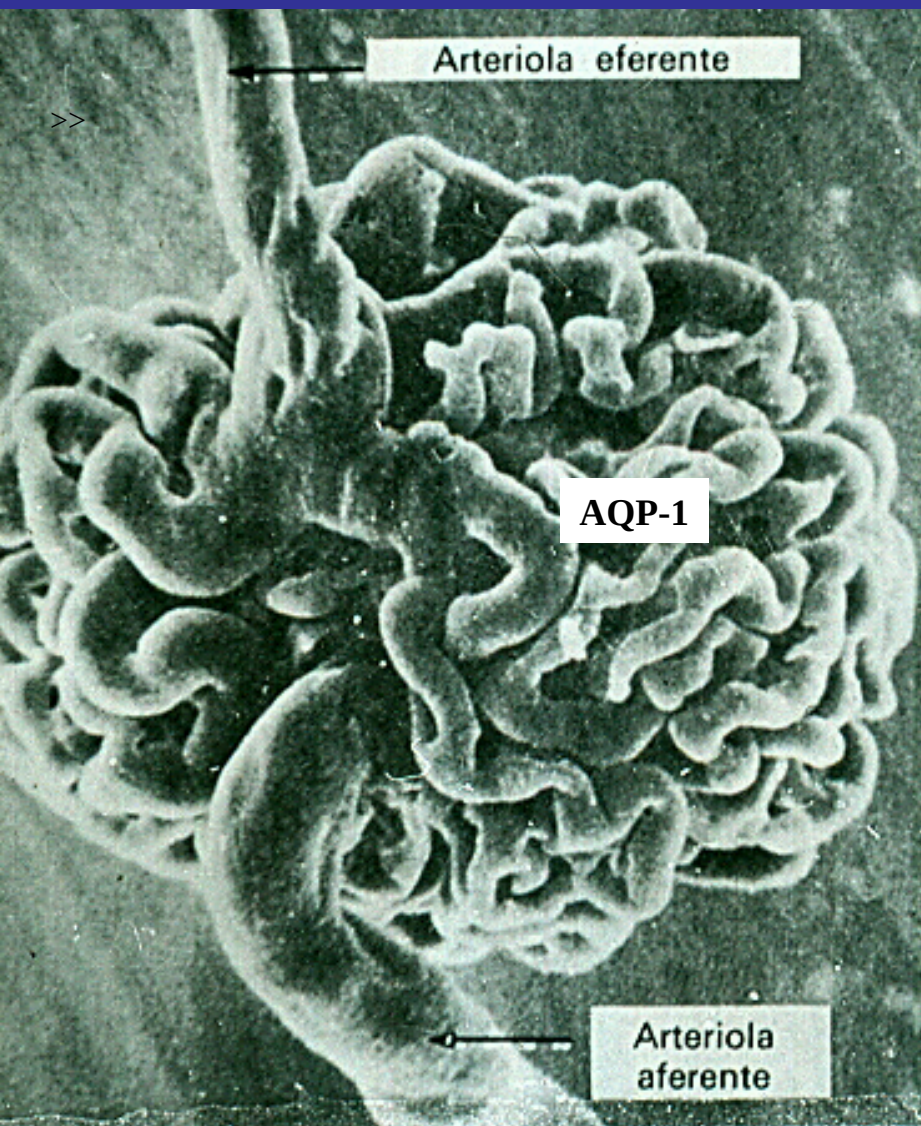


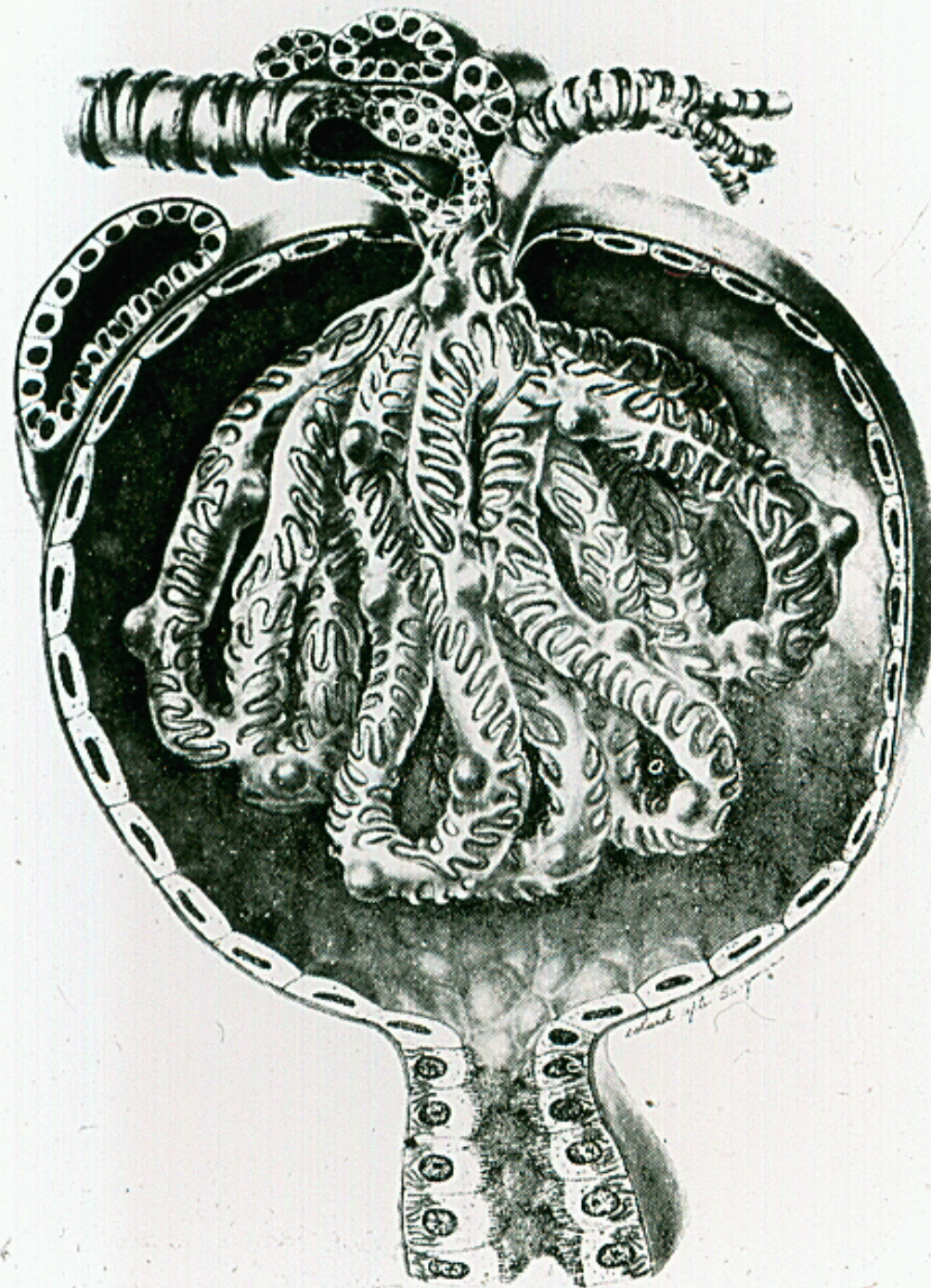


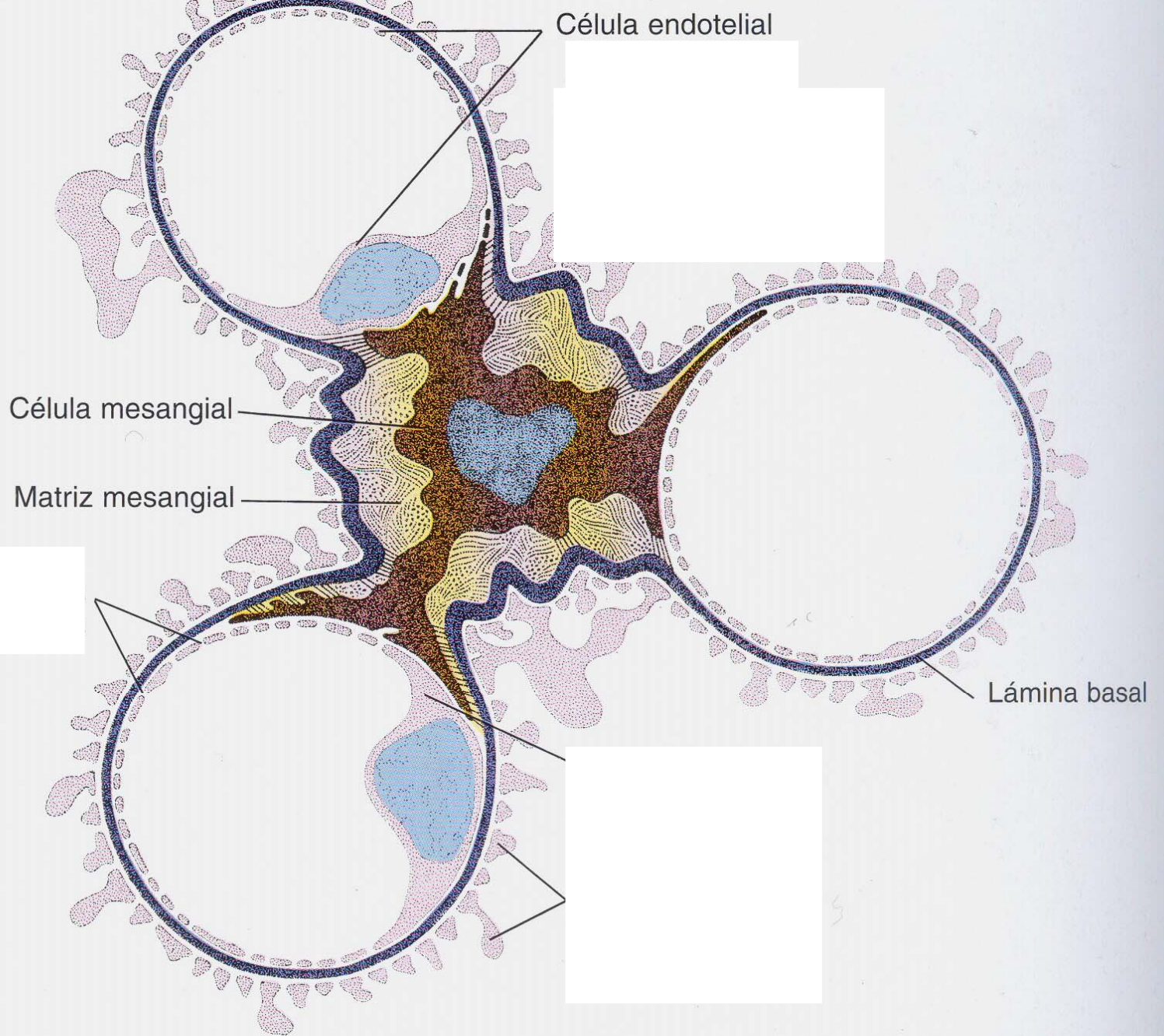




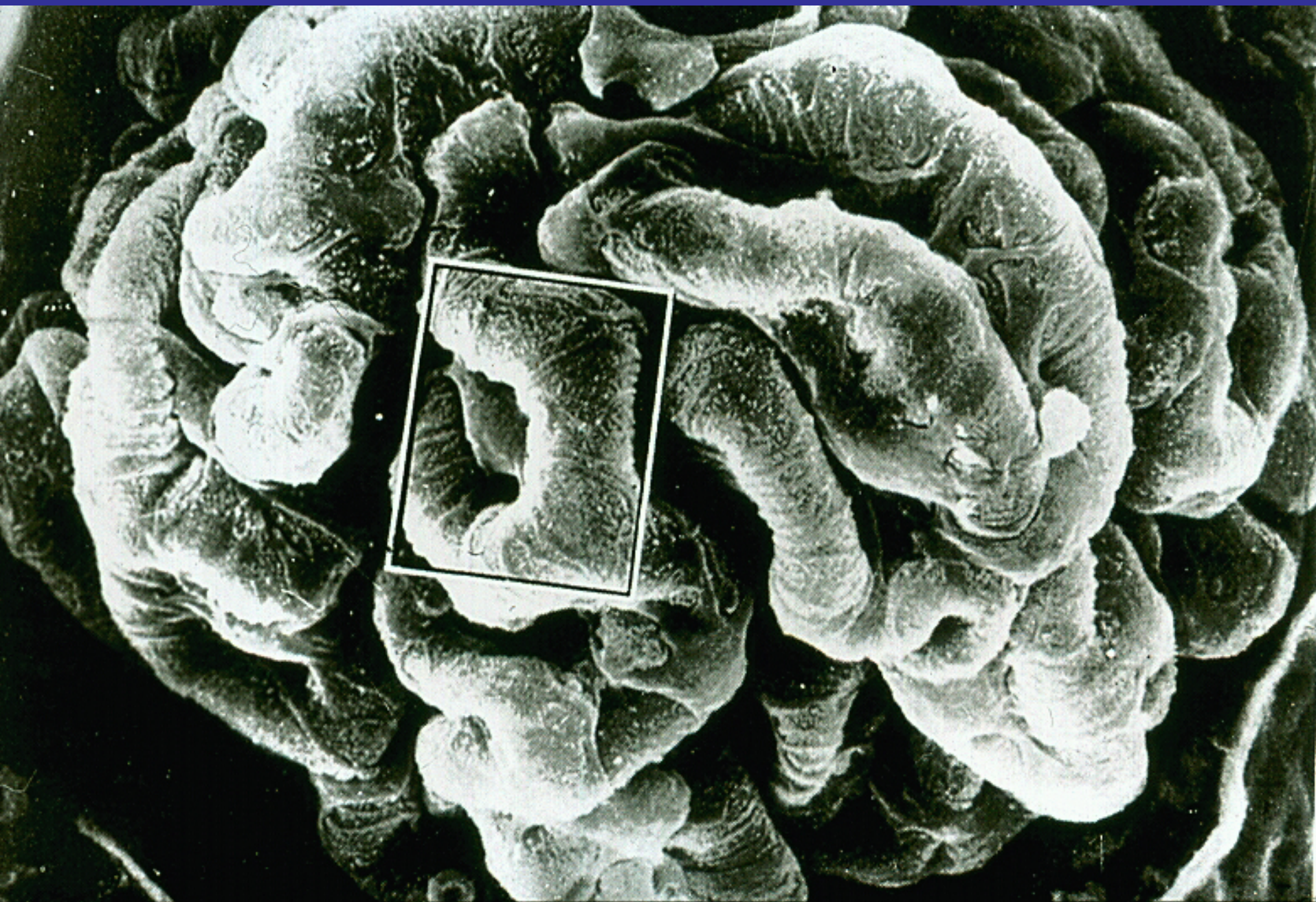


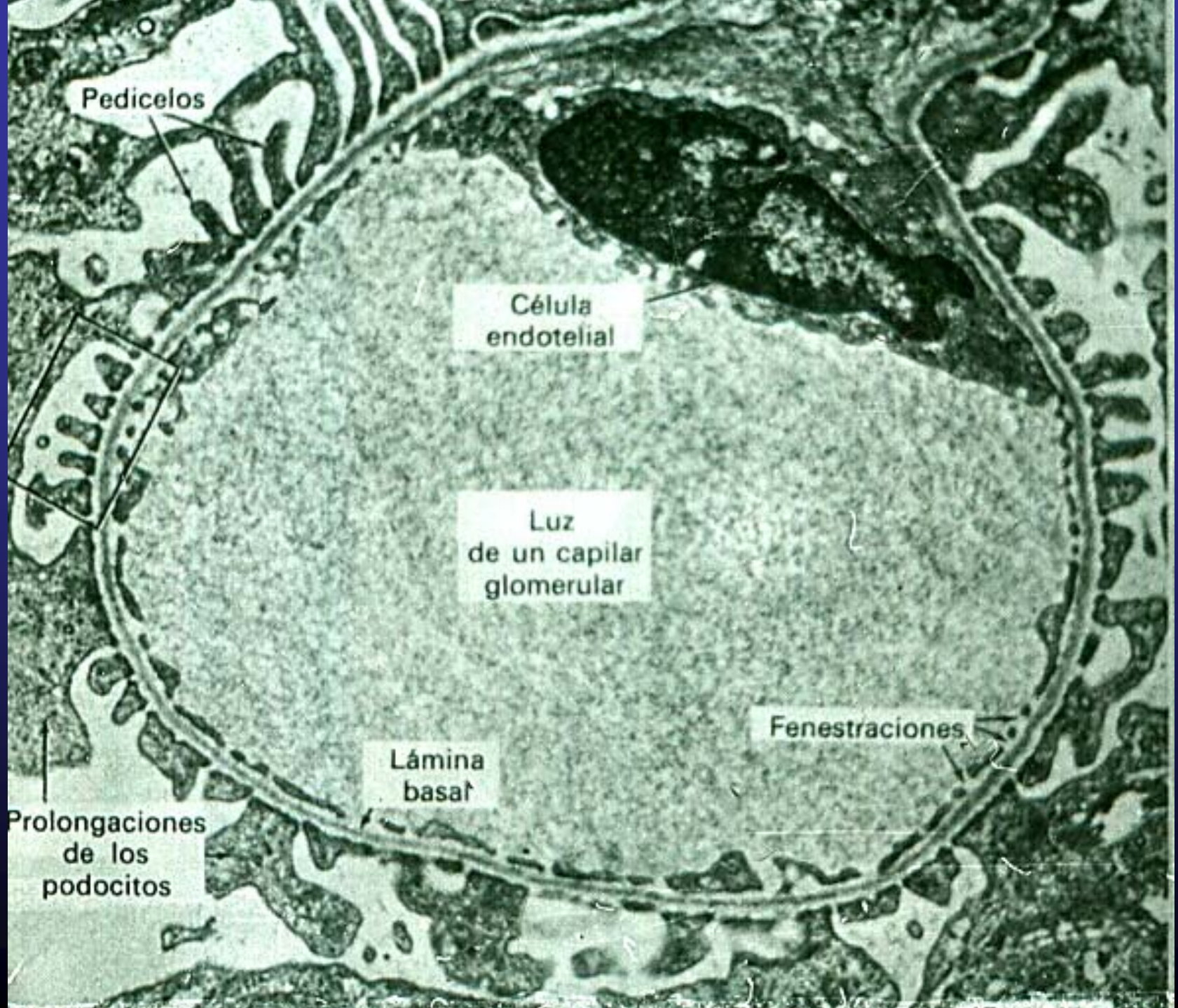


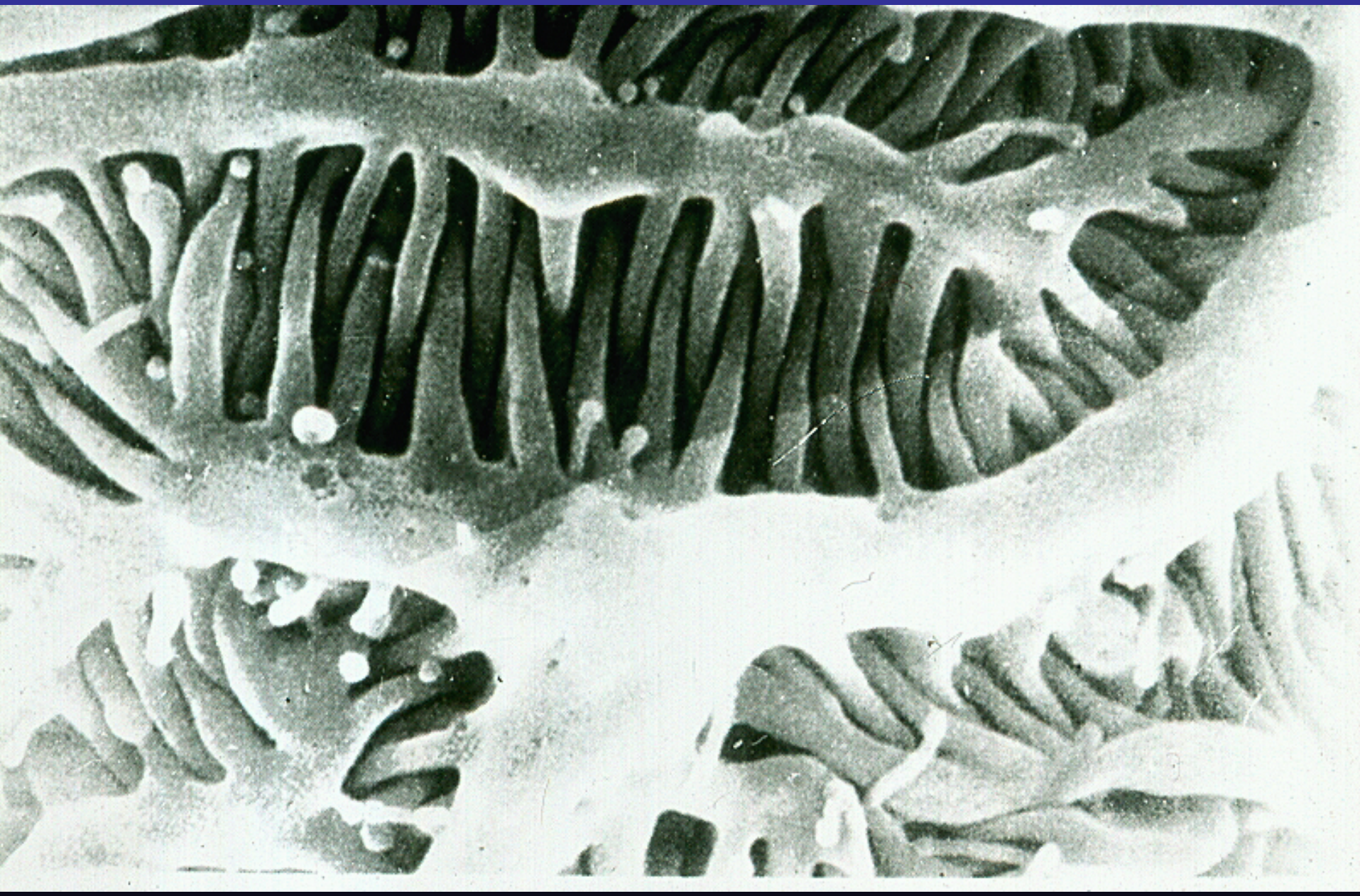


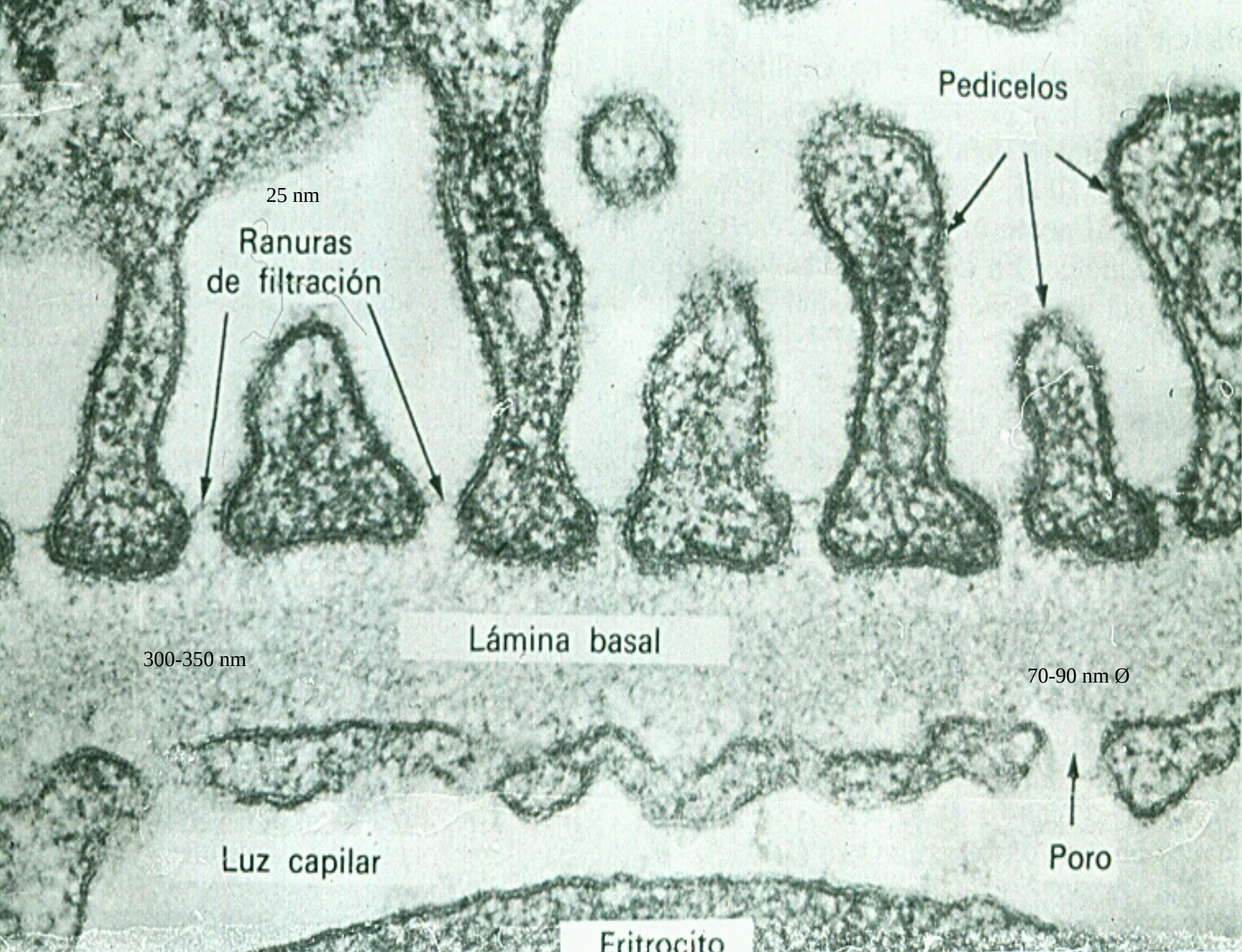












Pedicelos

25 nm

Ranuras
de filtración

Lámina basal

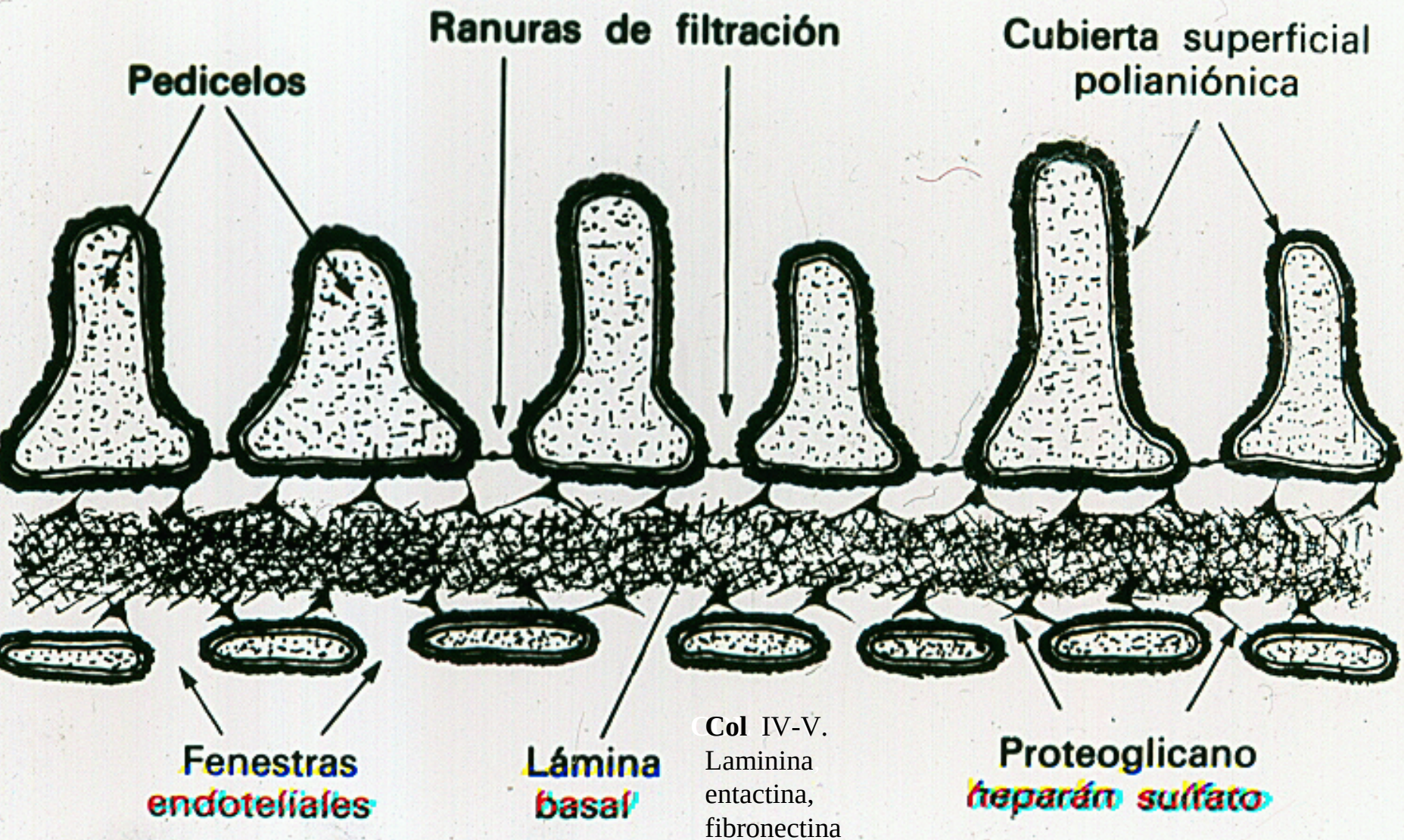
300-350 nm

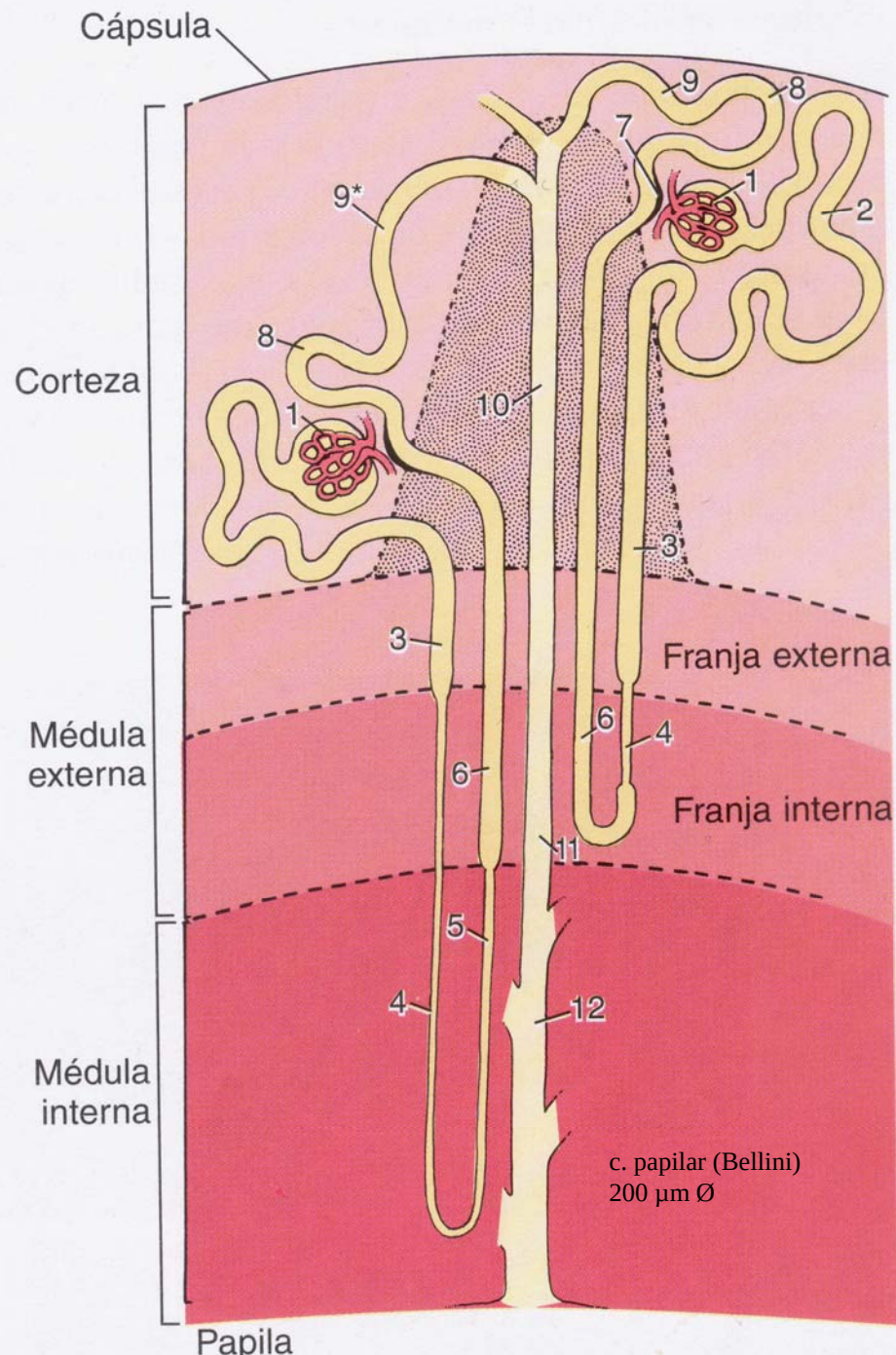
70-90 nm Ø

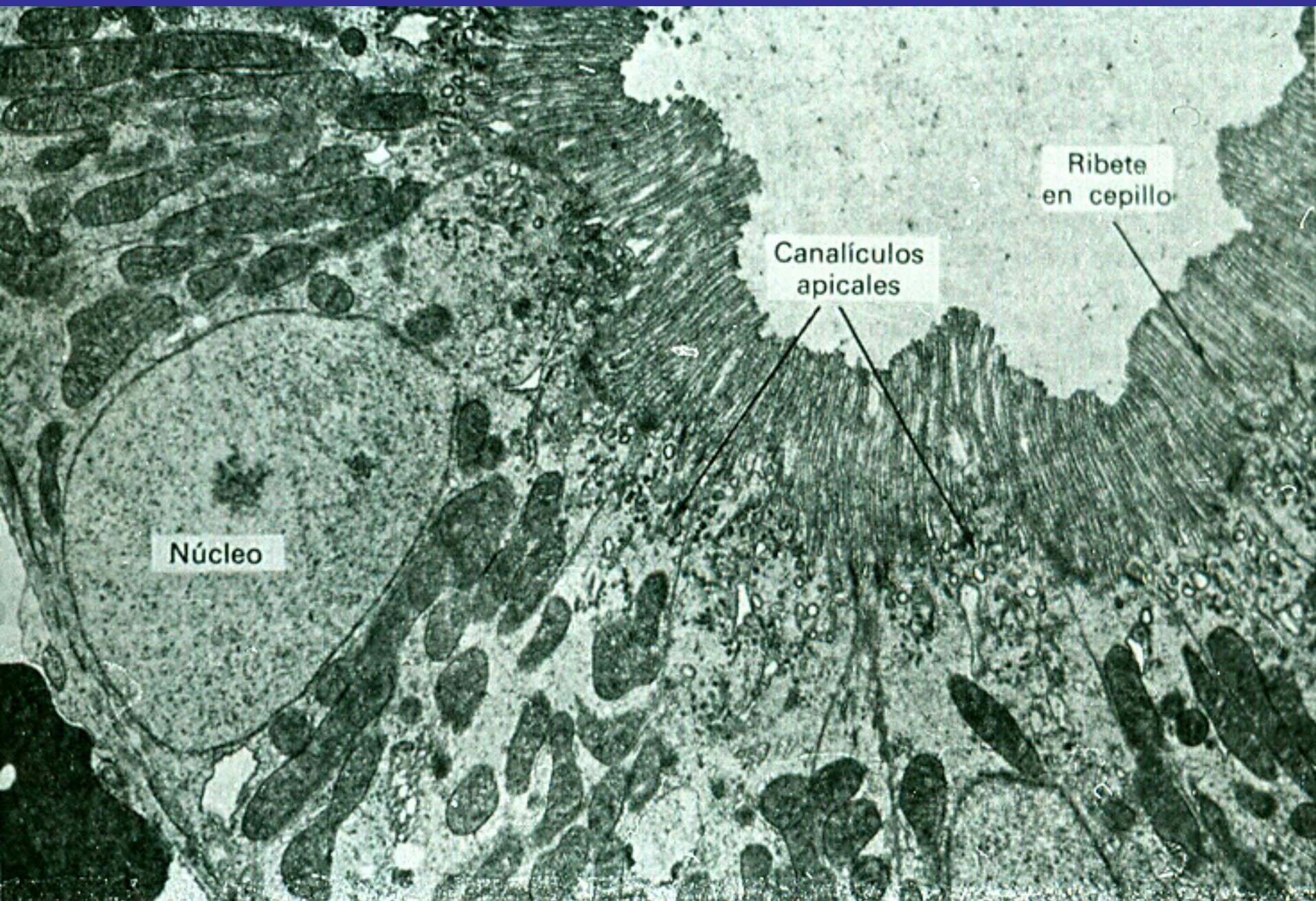
Luz capilar

Poro

Eritrocito



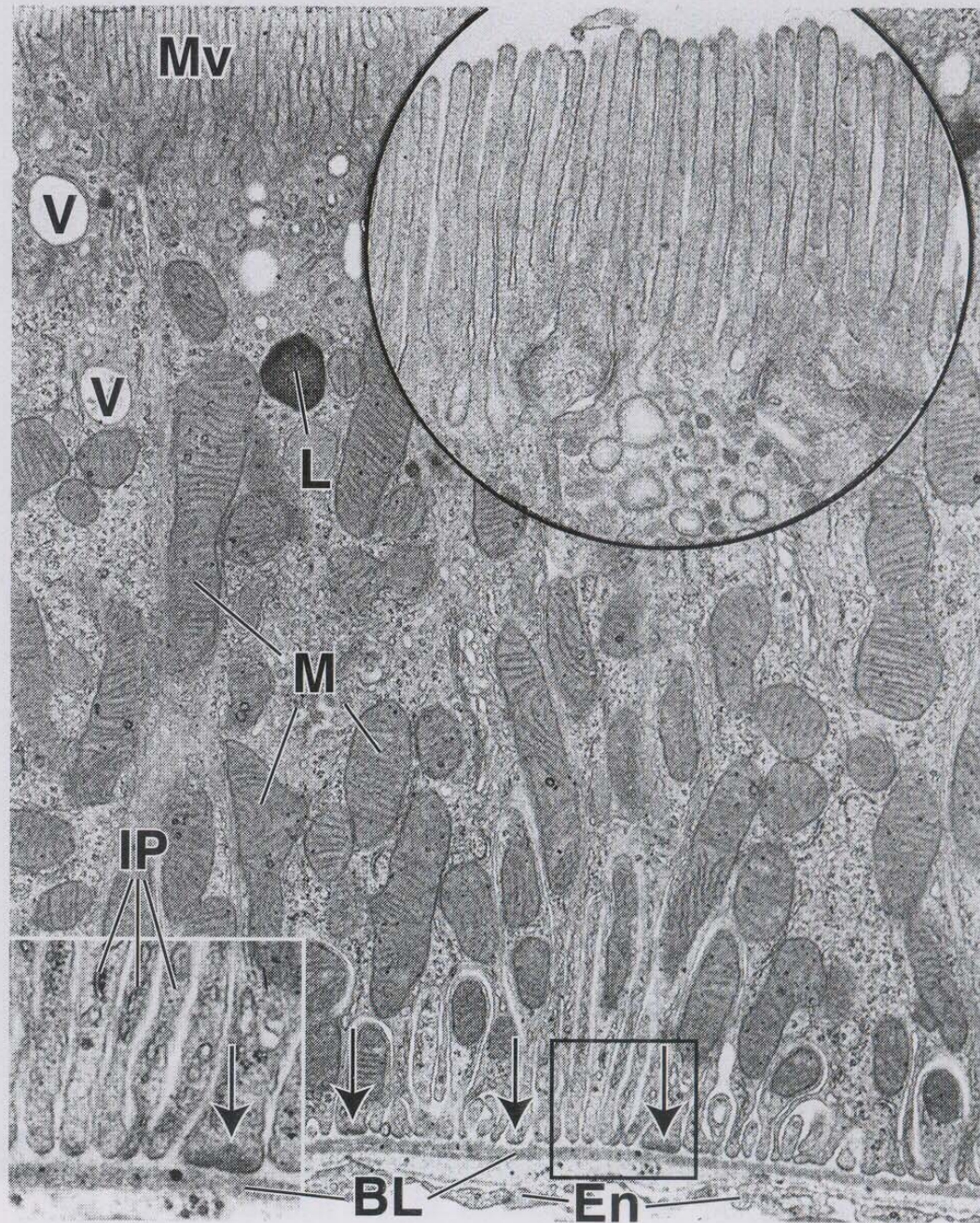




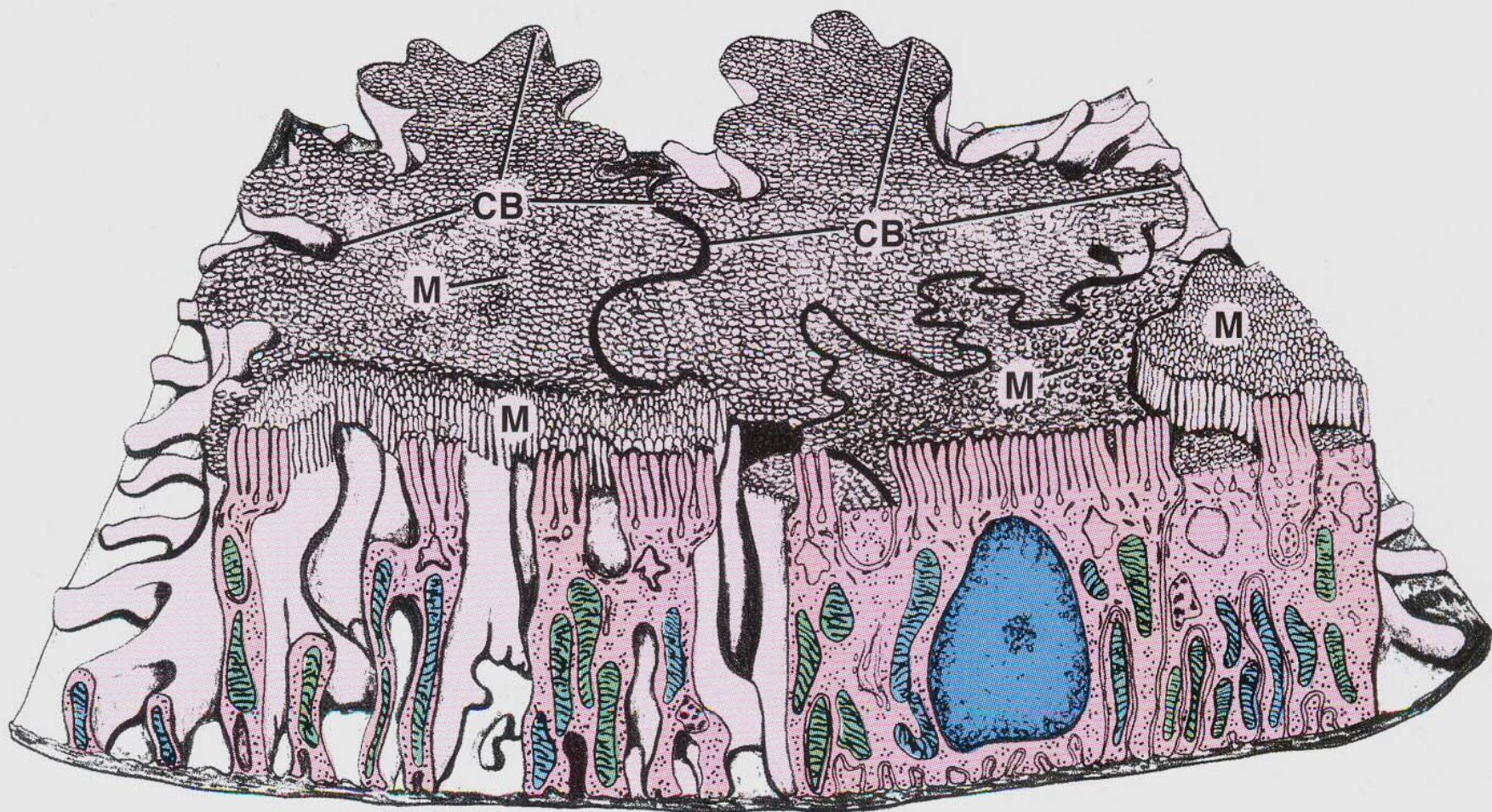
Núcleo

Canalículos
apicales

Ribete
en cepillo



150 L / ds (80%
del ultraf.

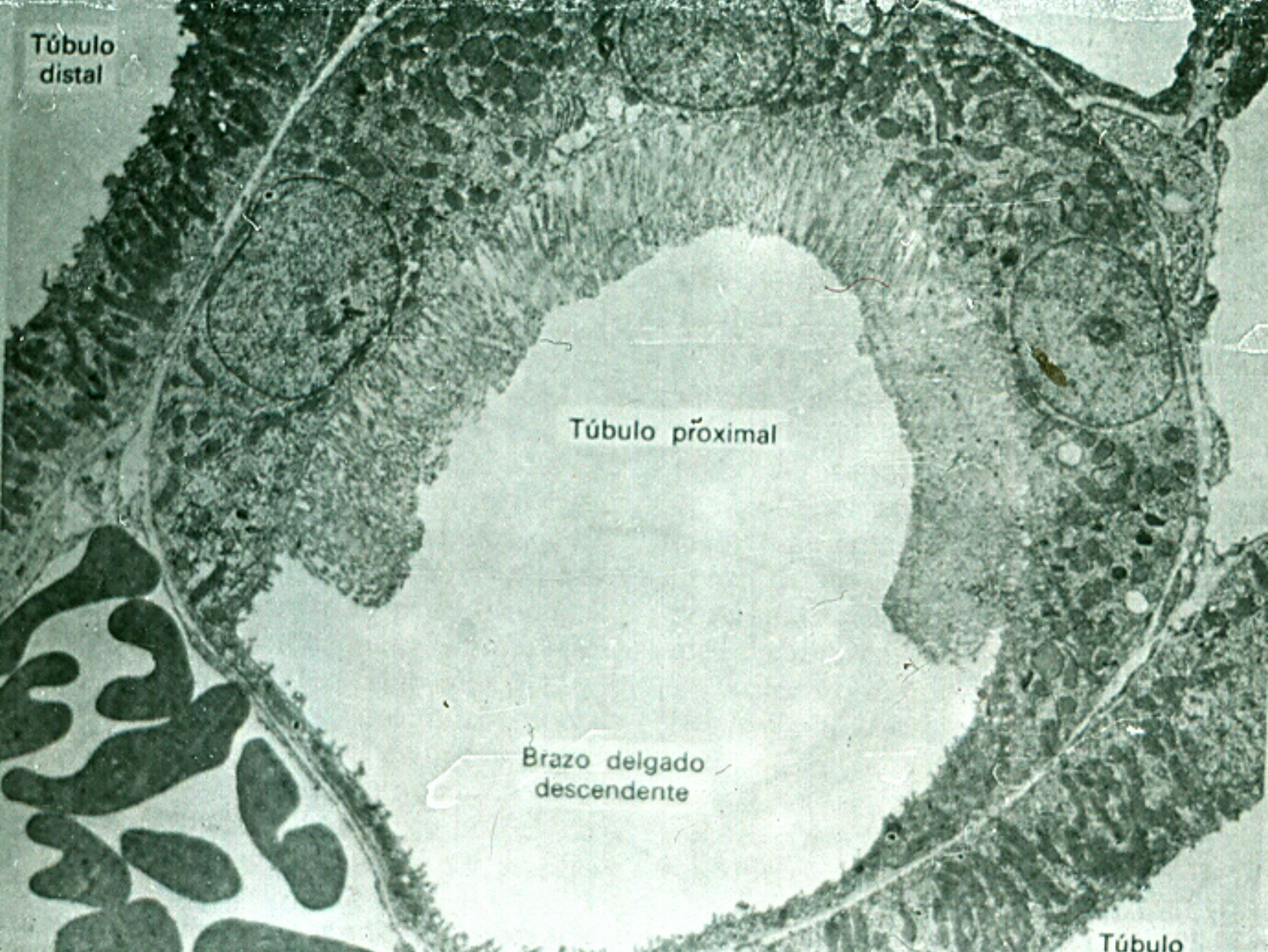


Túbulo
distal

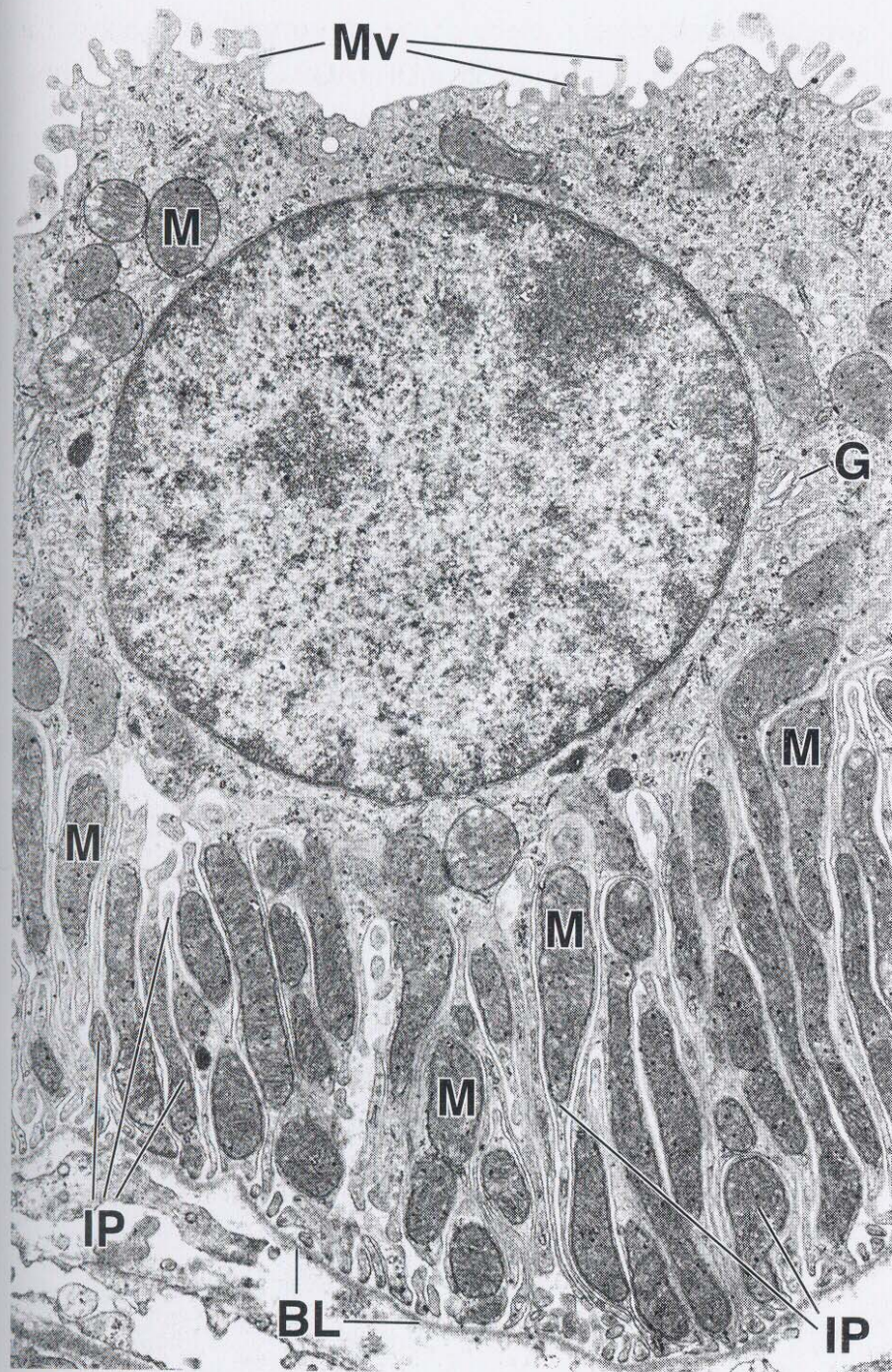
Túbulo prŕoximal

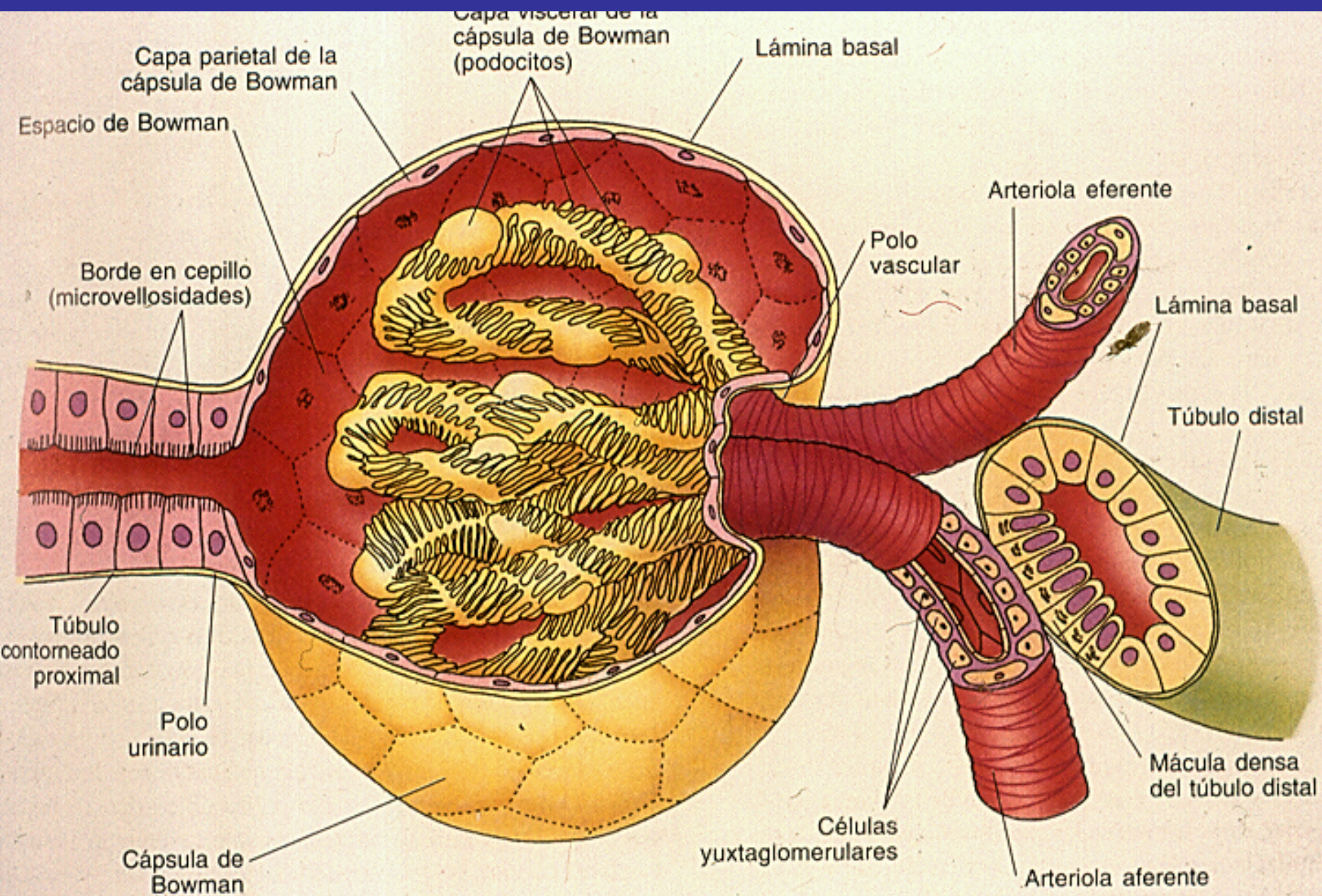
Brazo delgado
descendente

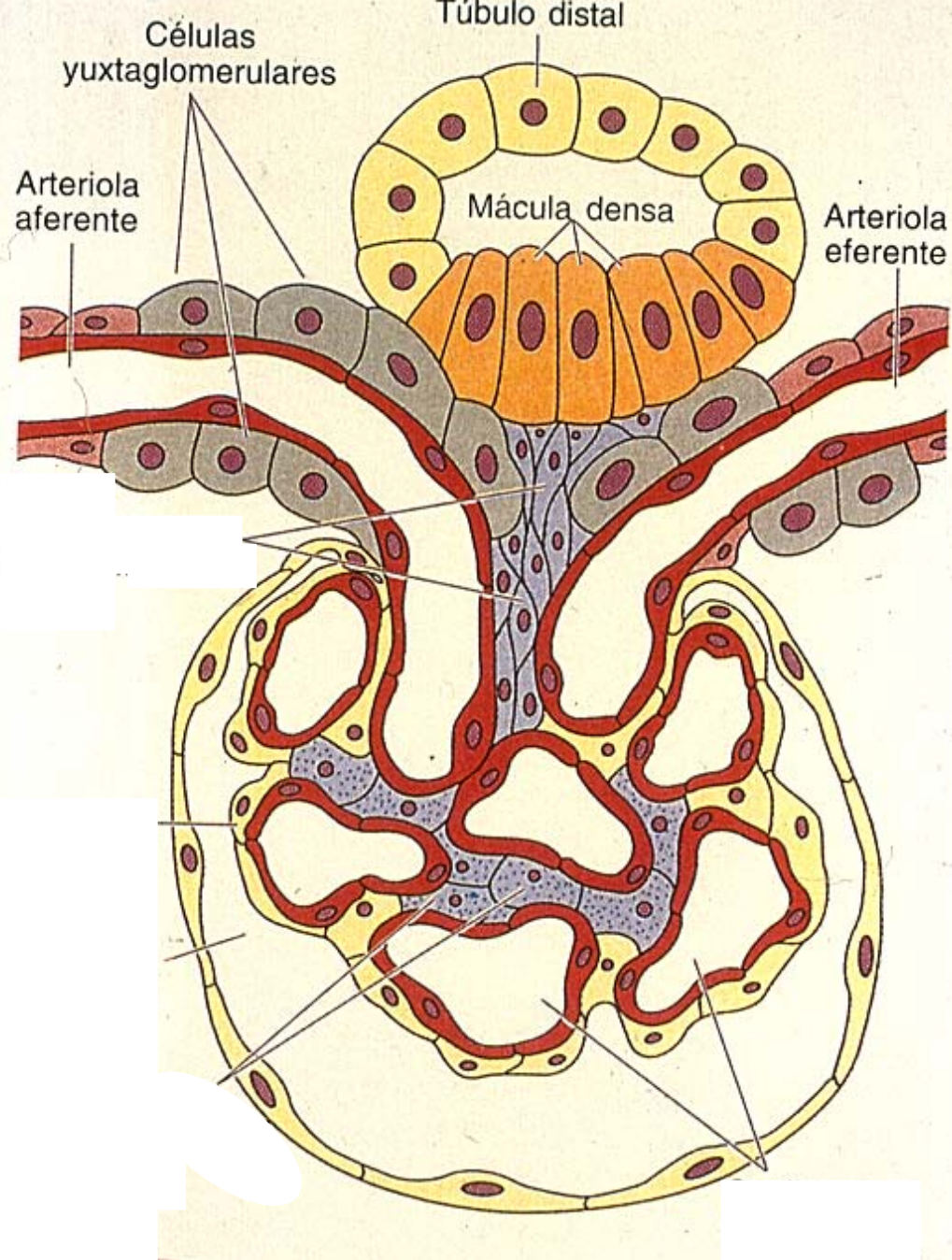
Túbulo

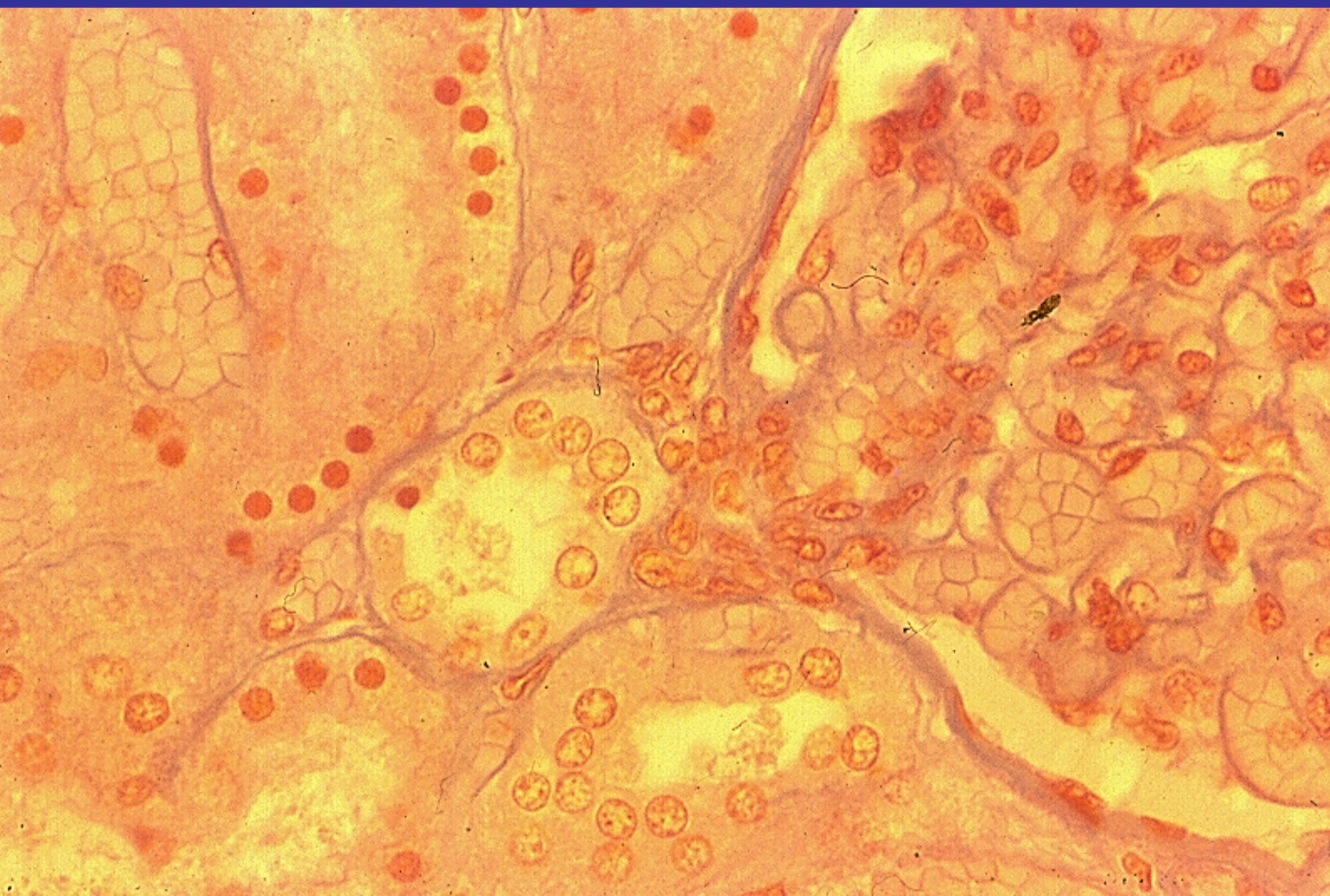


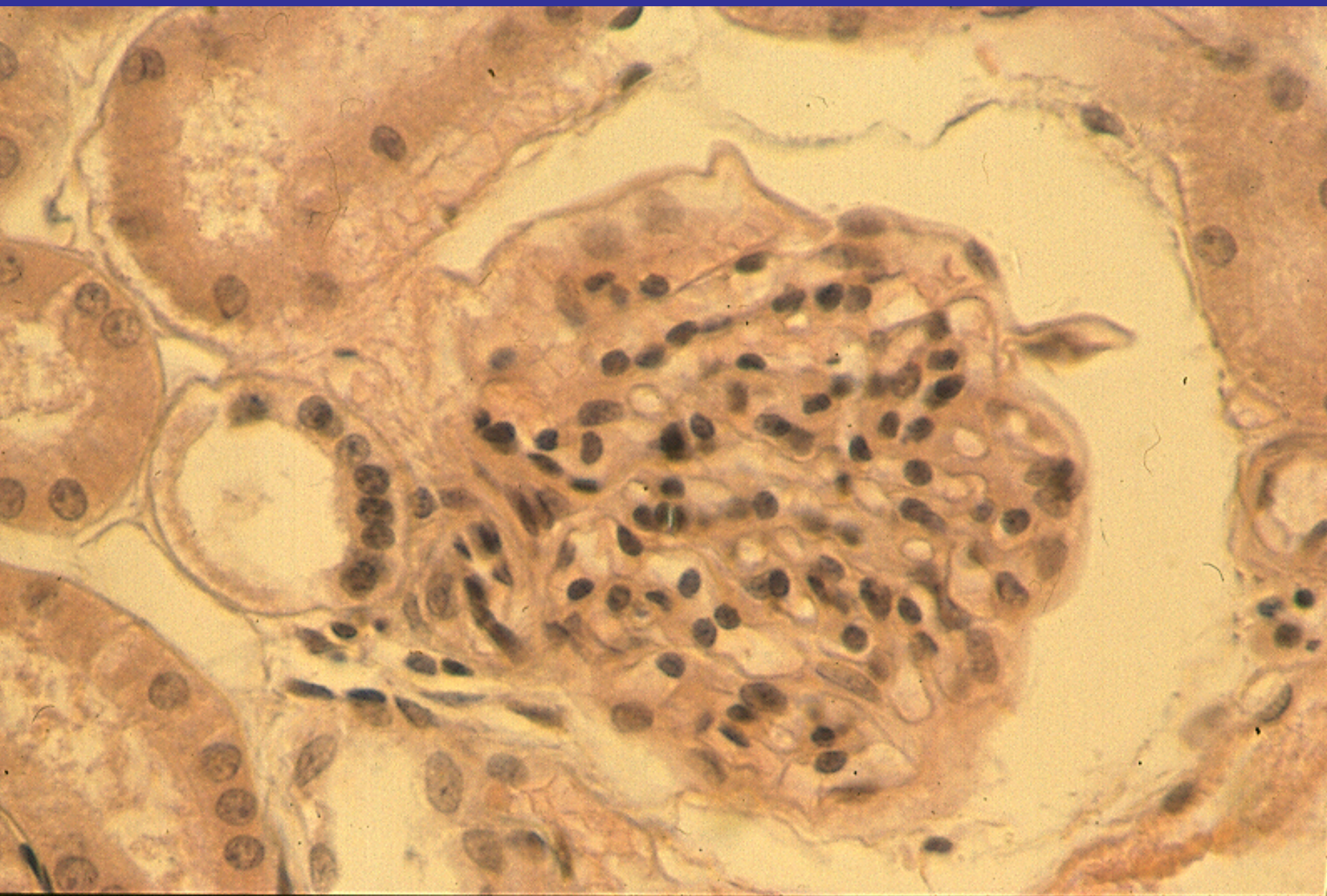


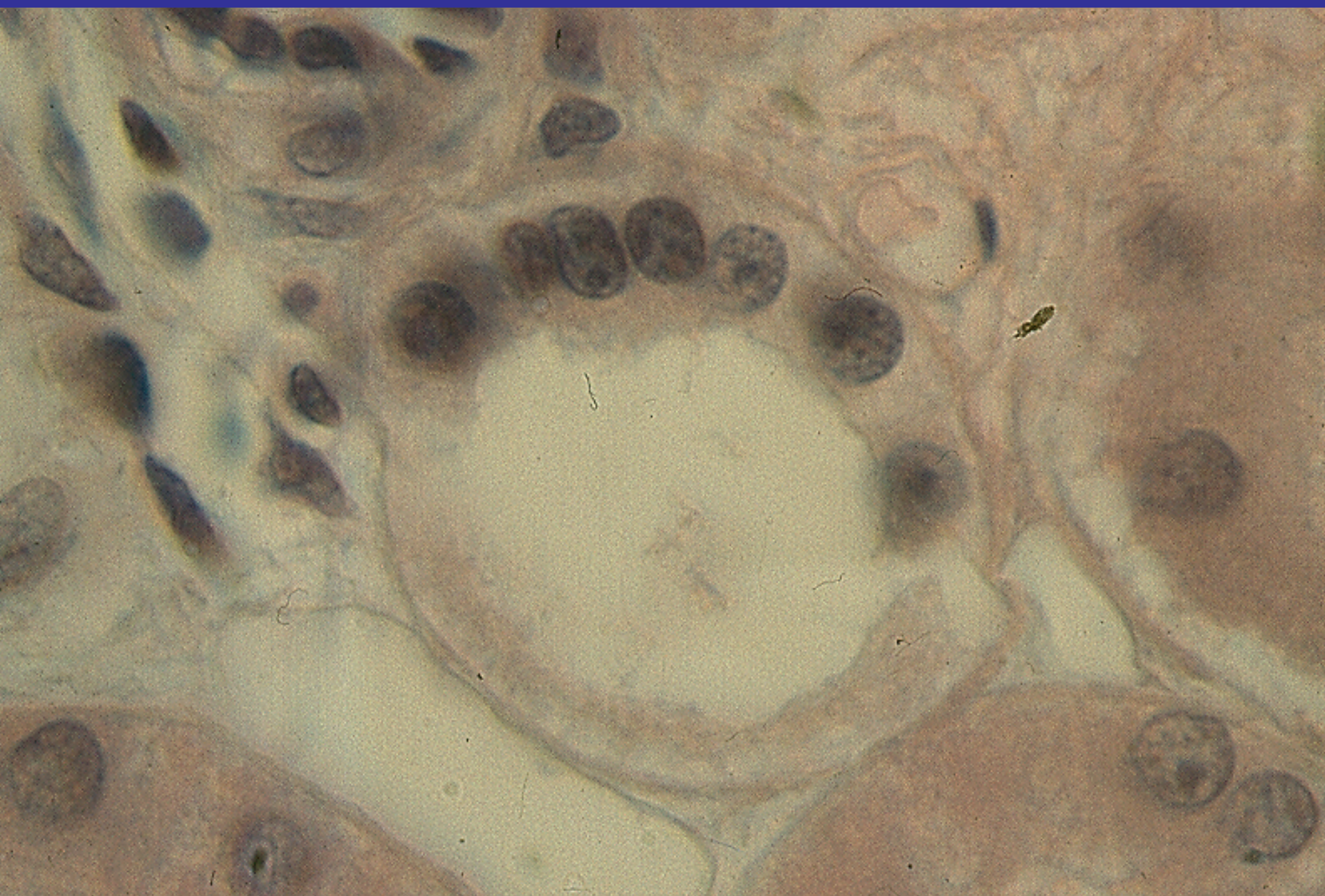


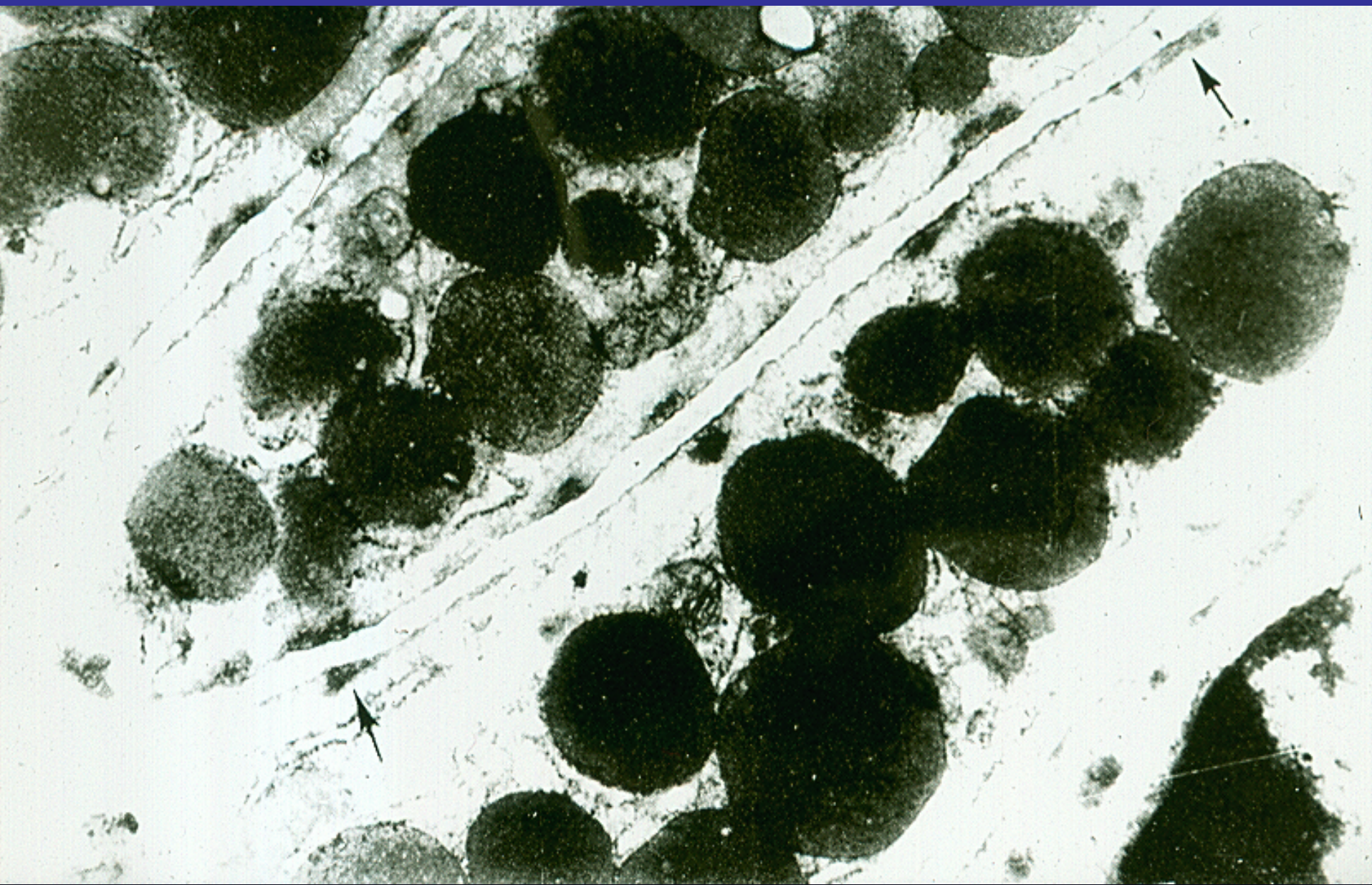












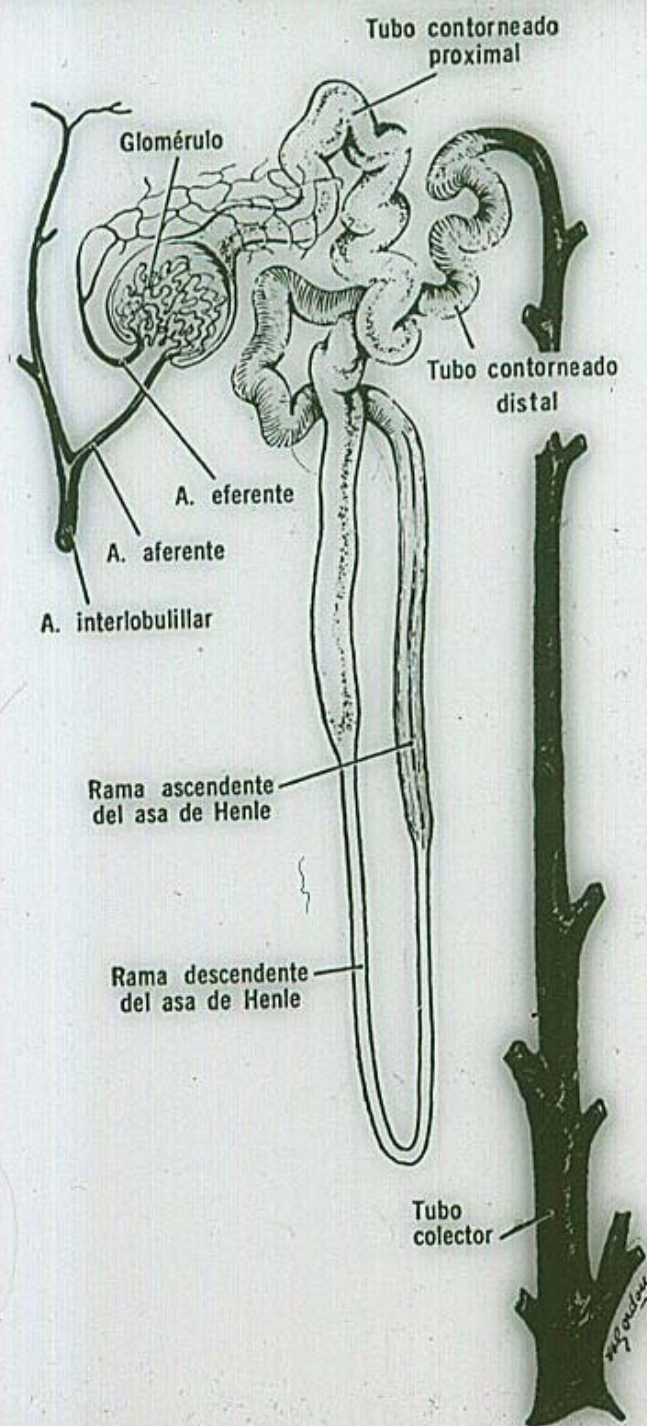
Aparato yuxtaglomerular (yg)

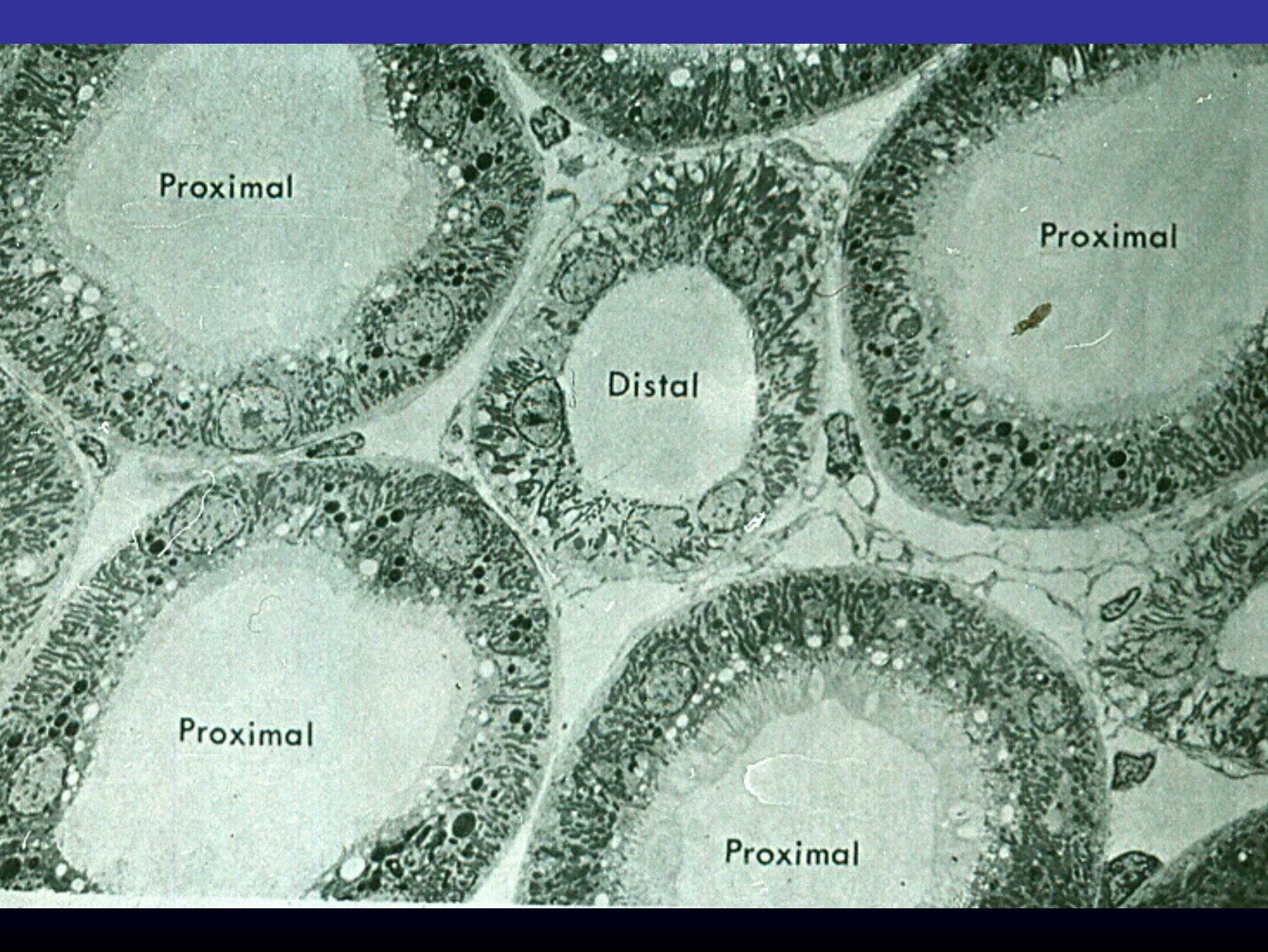
Por $-Na$, hemorr. $\rightarrow$ las cél yuxtaglomerulares (CYgs) activan el sistema renina – angiotensina-aldosterona, sistema importante en el mantenimiento de la homeostasis del sodio y la hemodinámica renal (regula la tensión arterial).

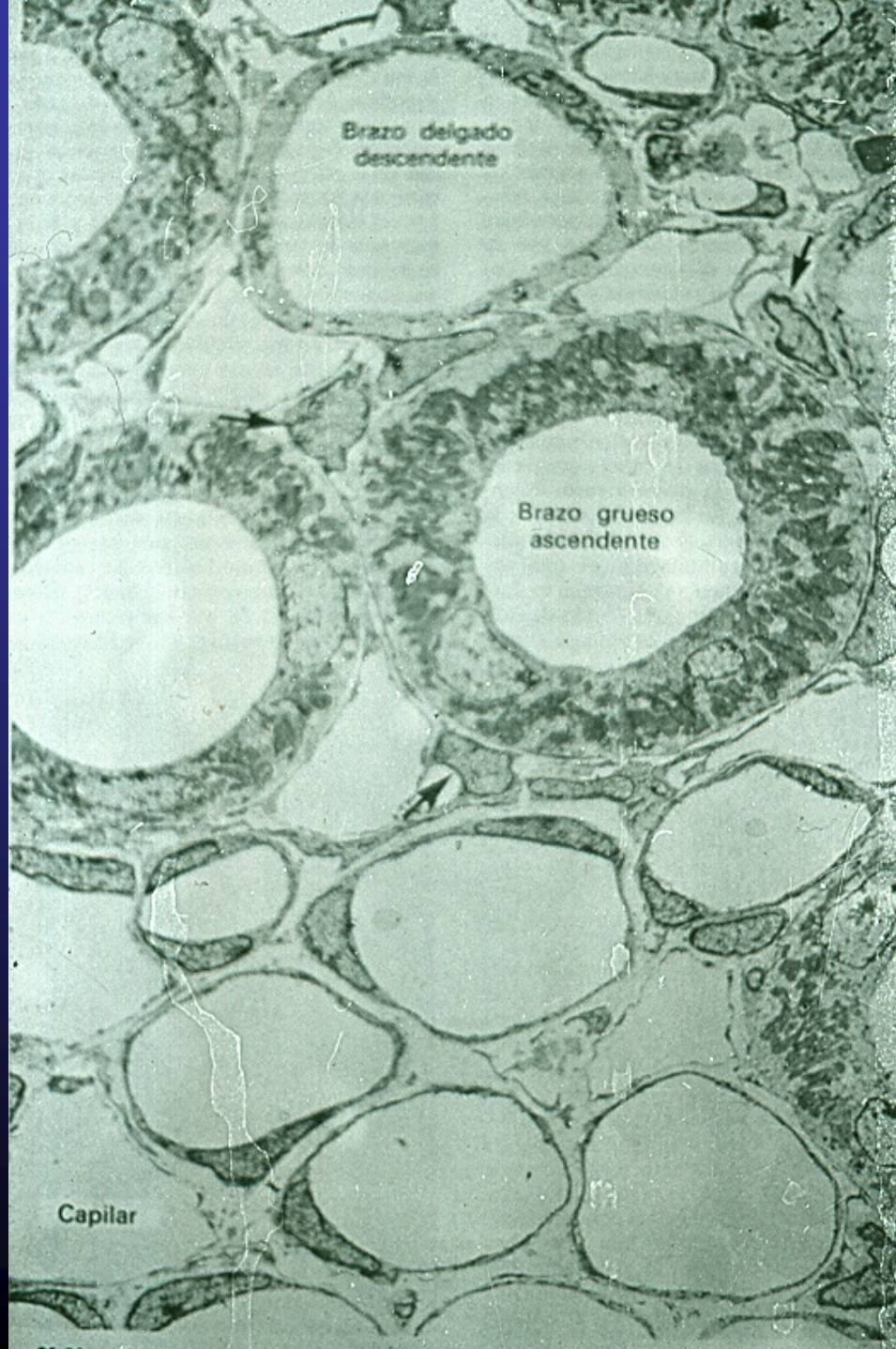
CYgs, secretan renina (una proteasa) a la sangre, allí cataliza $\rightarrow$ una globina circulante, el angiotensinógeno para producir $\rightarrow$ el decapeptido, angiotensina I (ang.I). Luego, la ang.I $\rightarrow$ es convertida en el actapeptido activo angiotensina II por la enzima convertidora de ang. (ACE) presente en la céls. endoteliales del pulmón.

La ang. II estimula $\rightarrow$ la síntesis y liberación de la hormona aldosterona (corteza suprarrenal). La aldosterona a su vez, actúa sobre los conductos colectores para aumentar la reabsorción de Na y agua, con lo que aumentan el volumen sanguíneo y la tensión arterial.

Angiotensina II también es un poderoso vaso constrictor que tiene una función reguladora en el control de la resistencia vascular renal y sistémica.

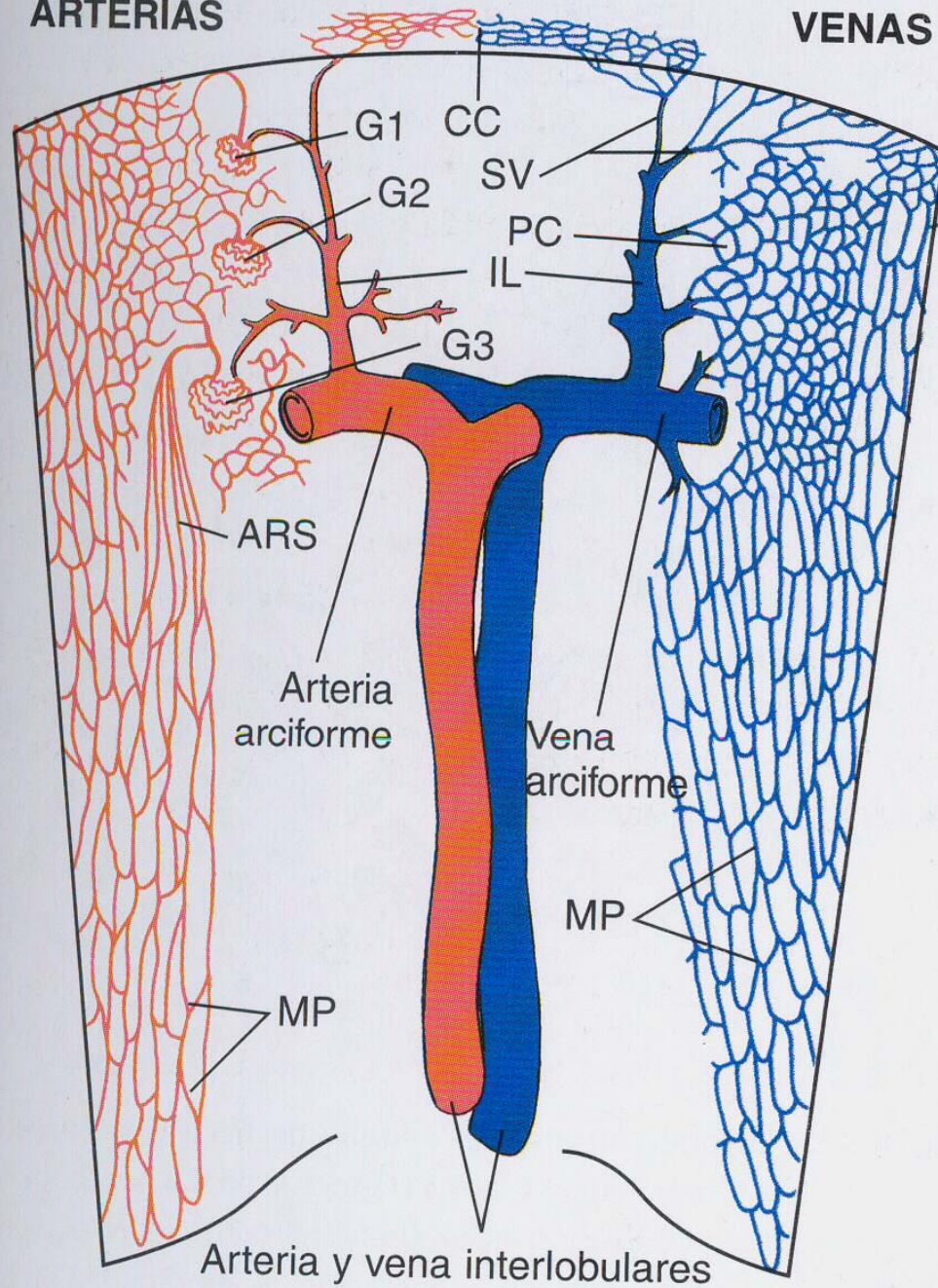




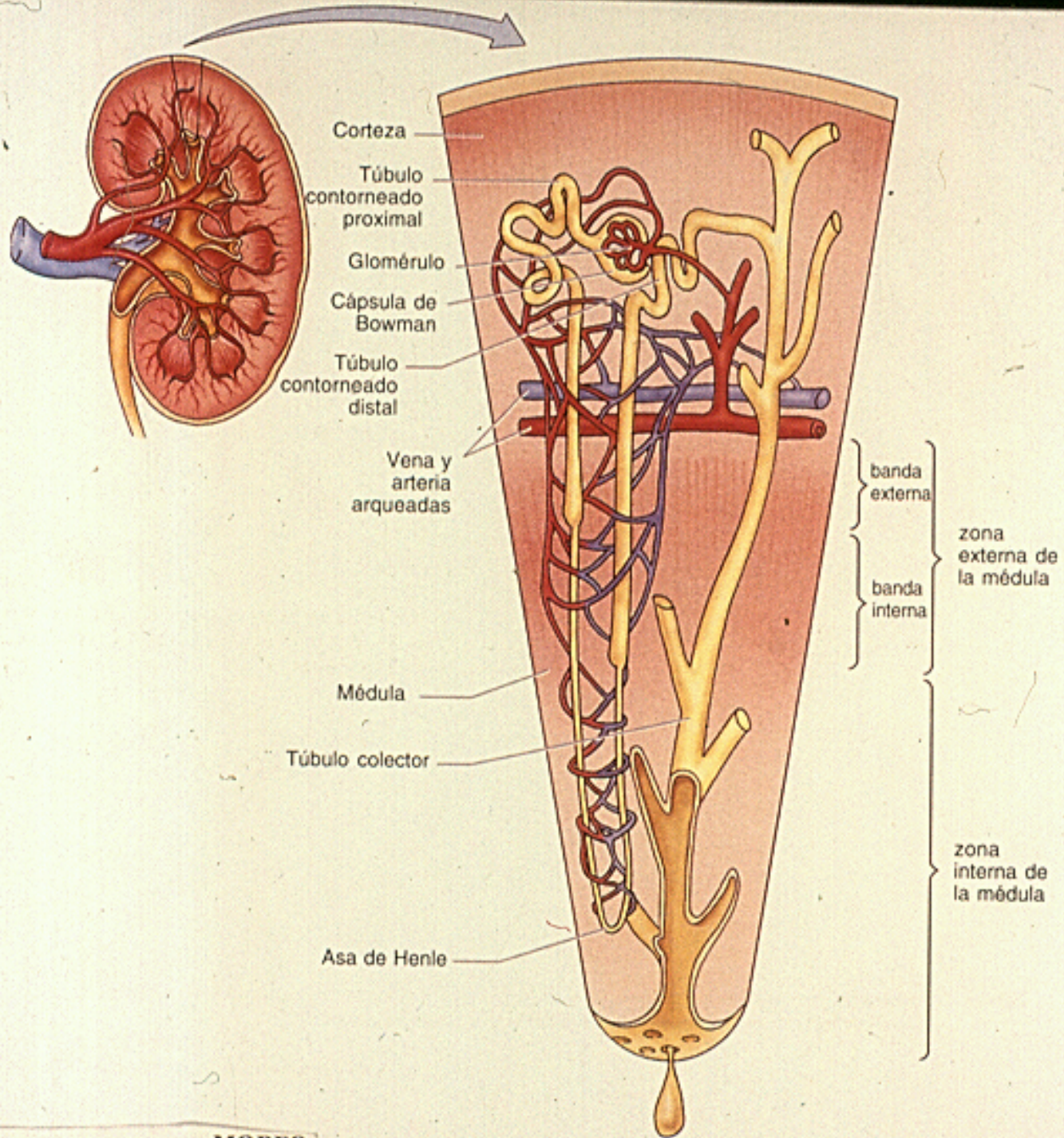


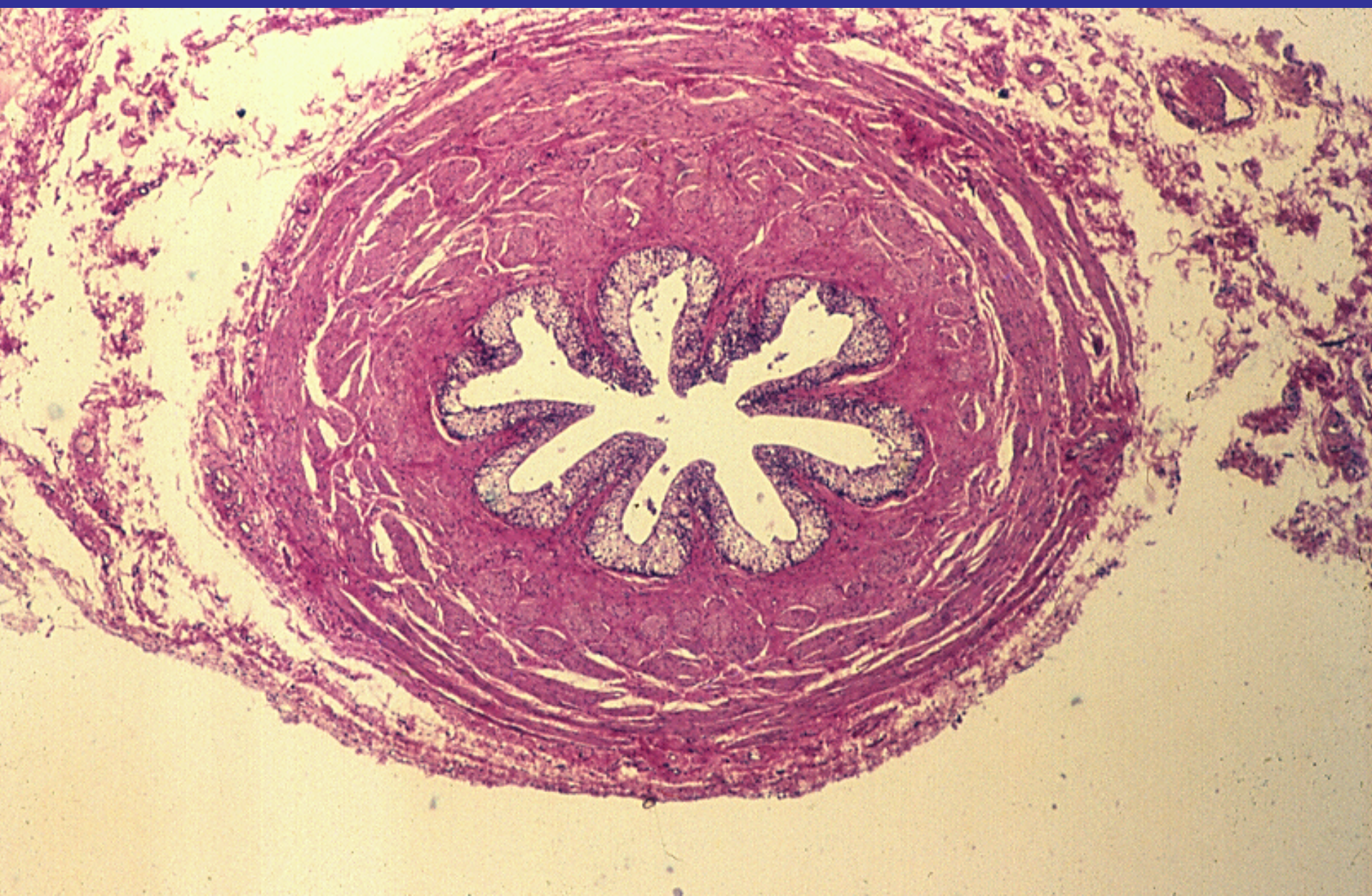
ARTERIAS

VENAS

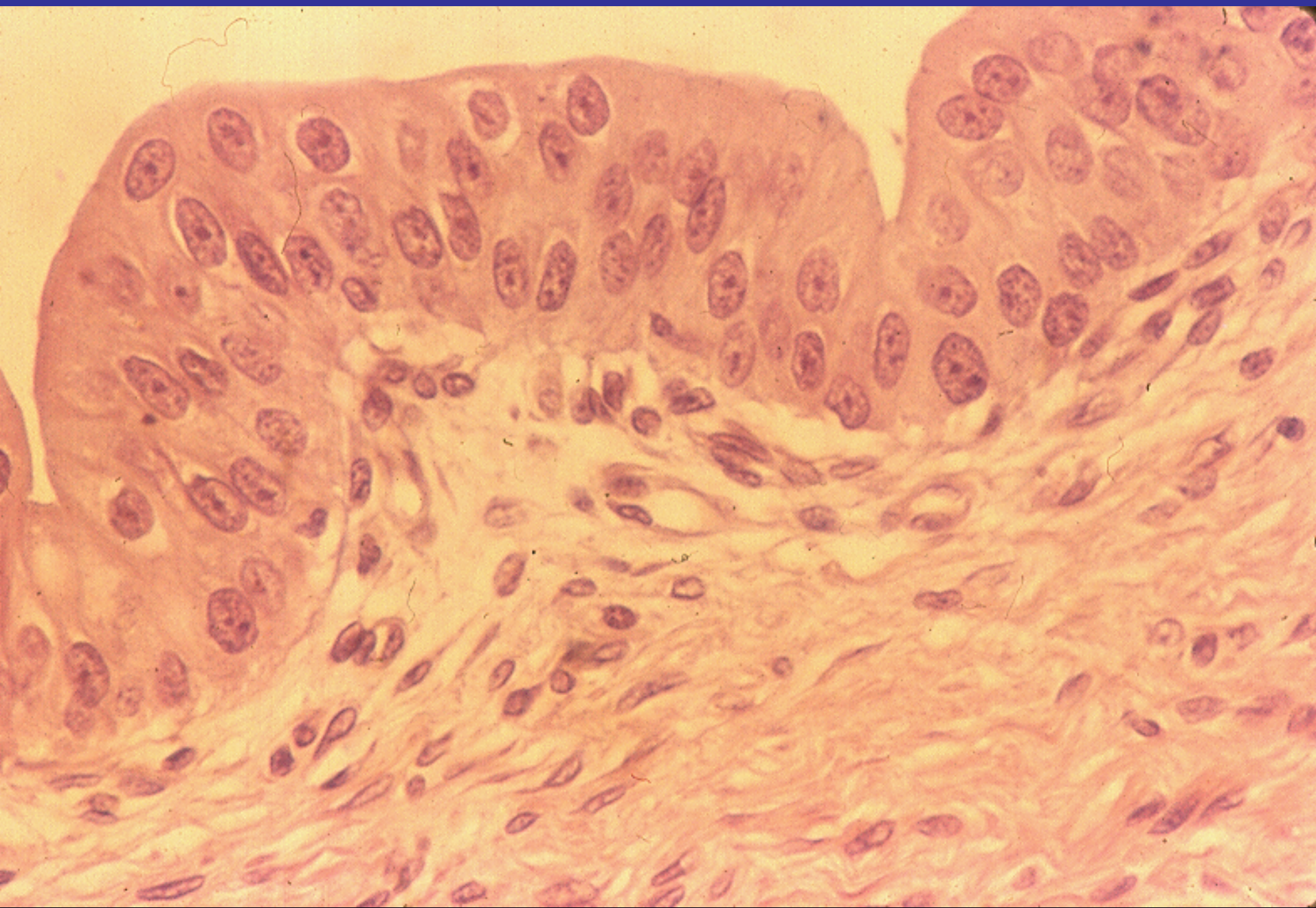


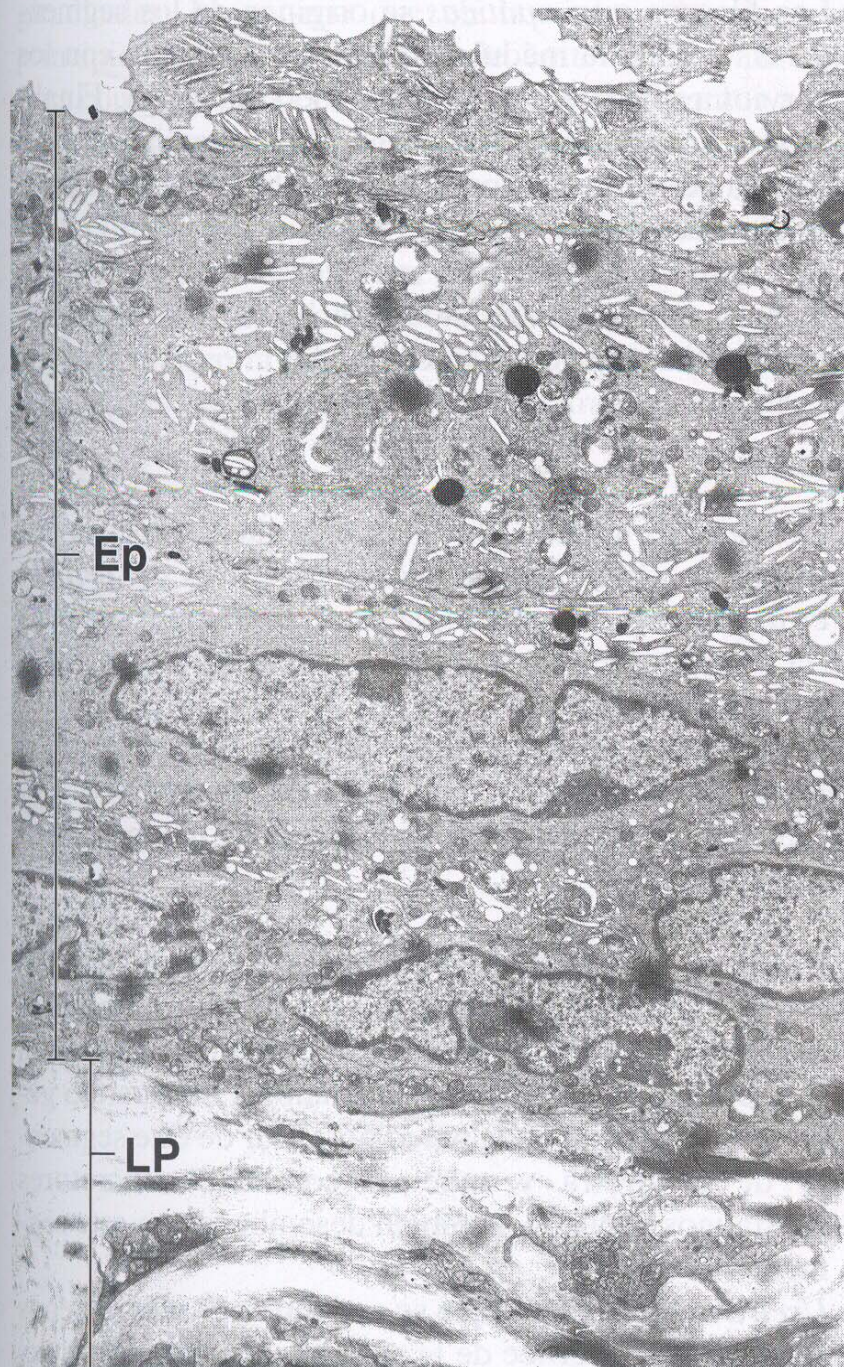
5. 10 31 51

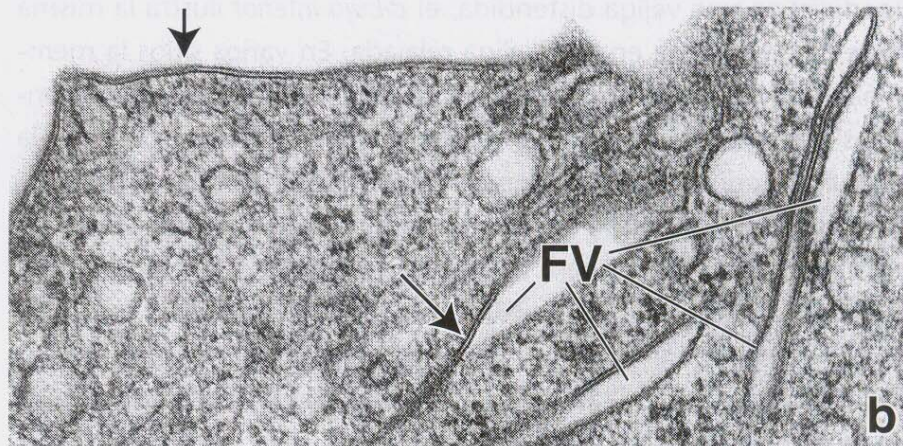
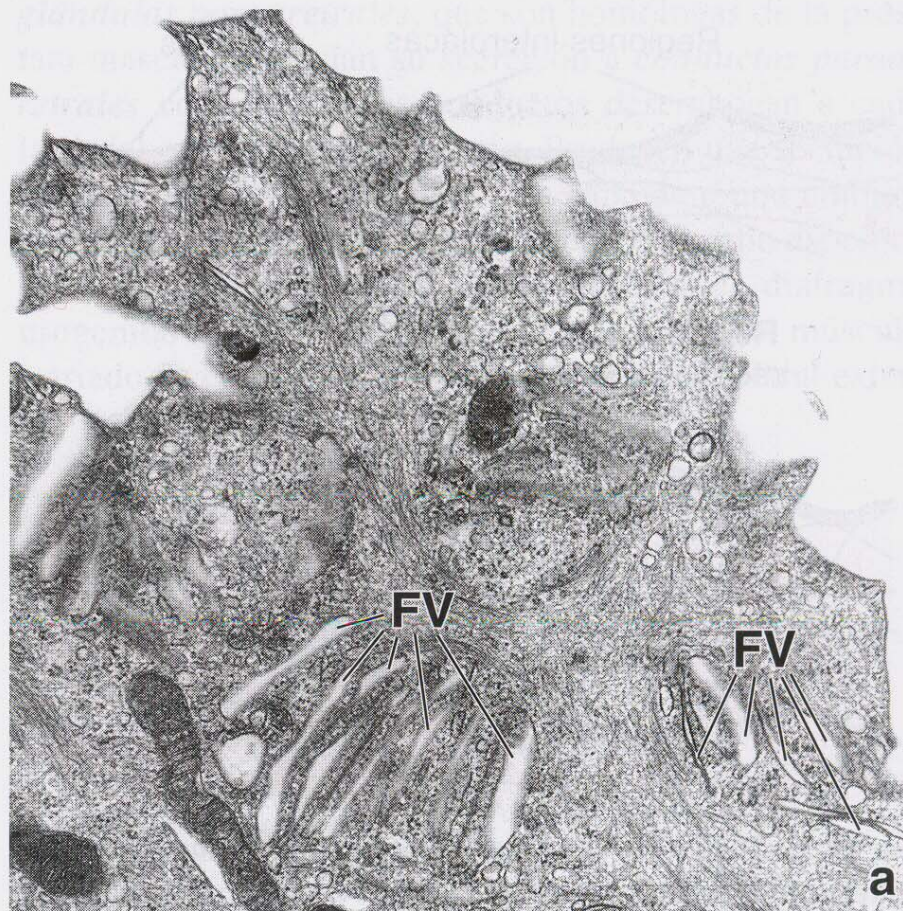


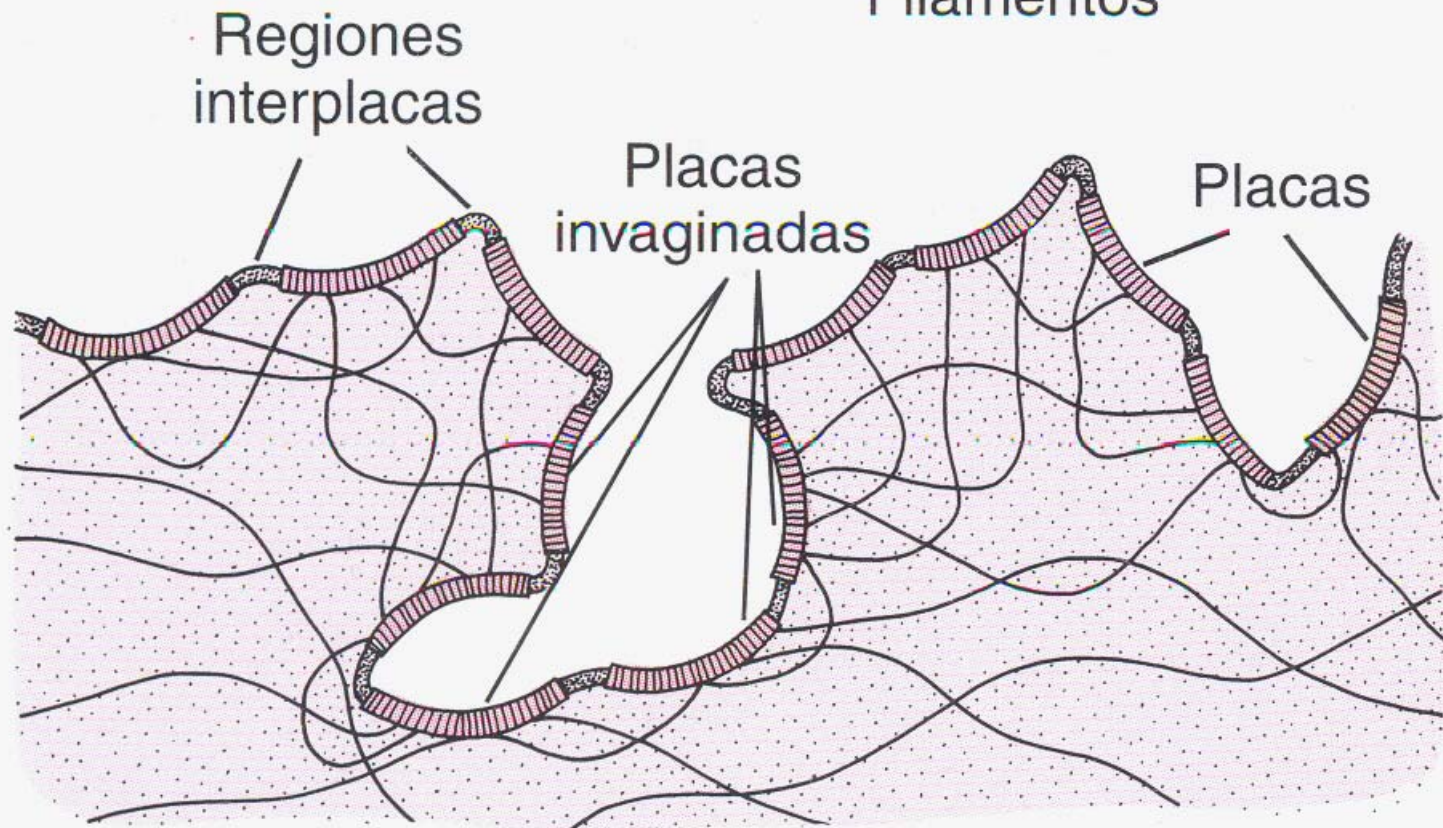
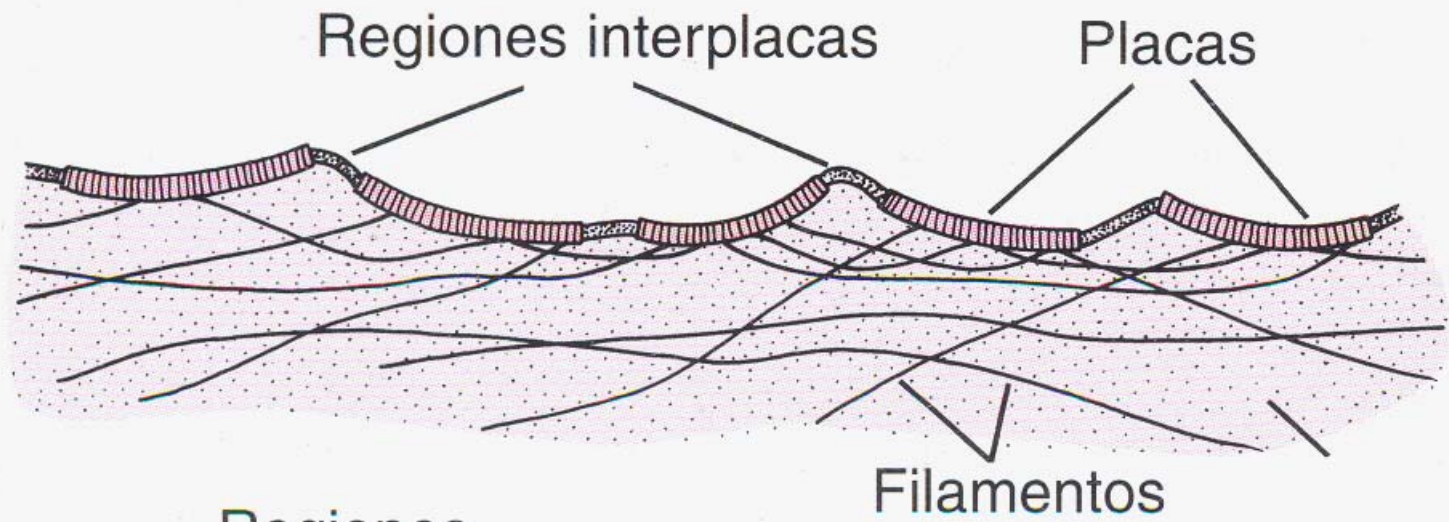


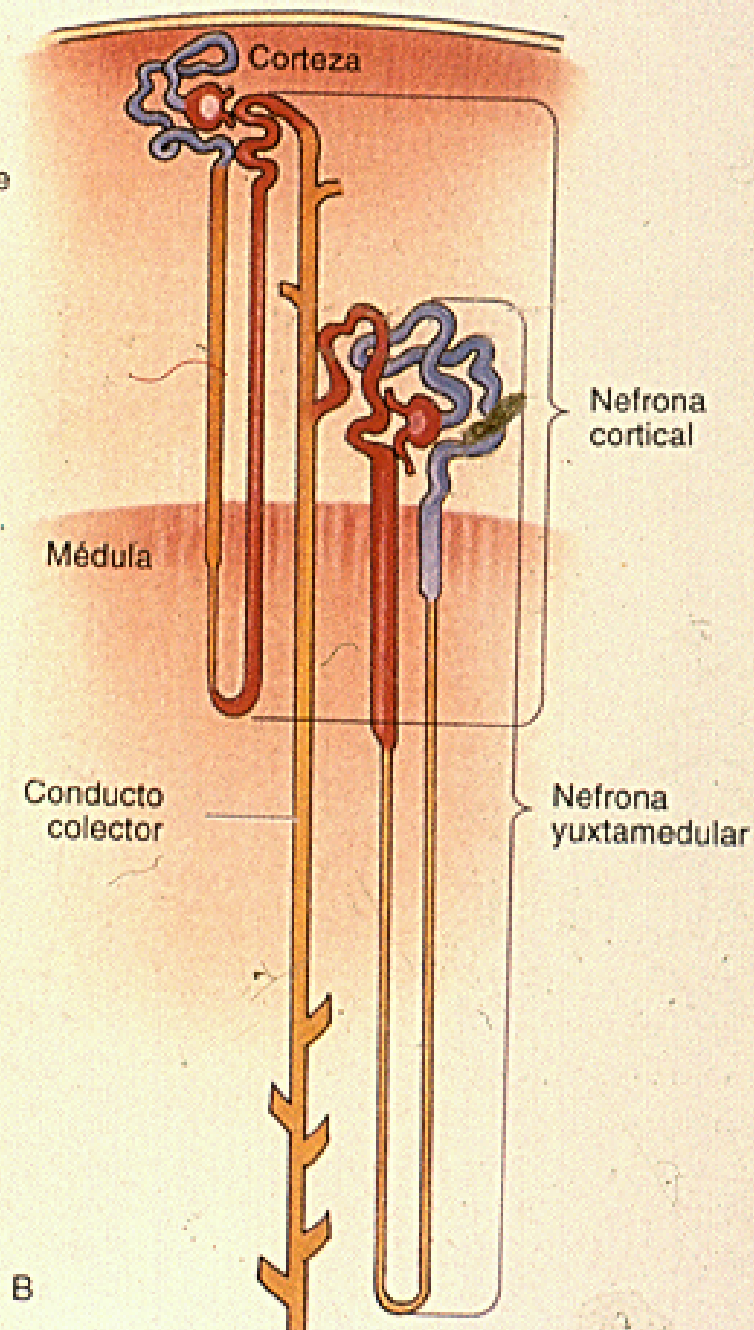
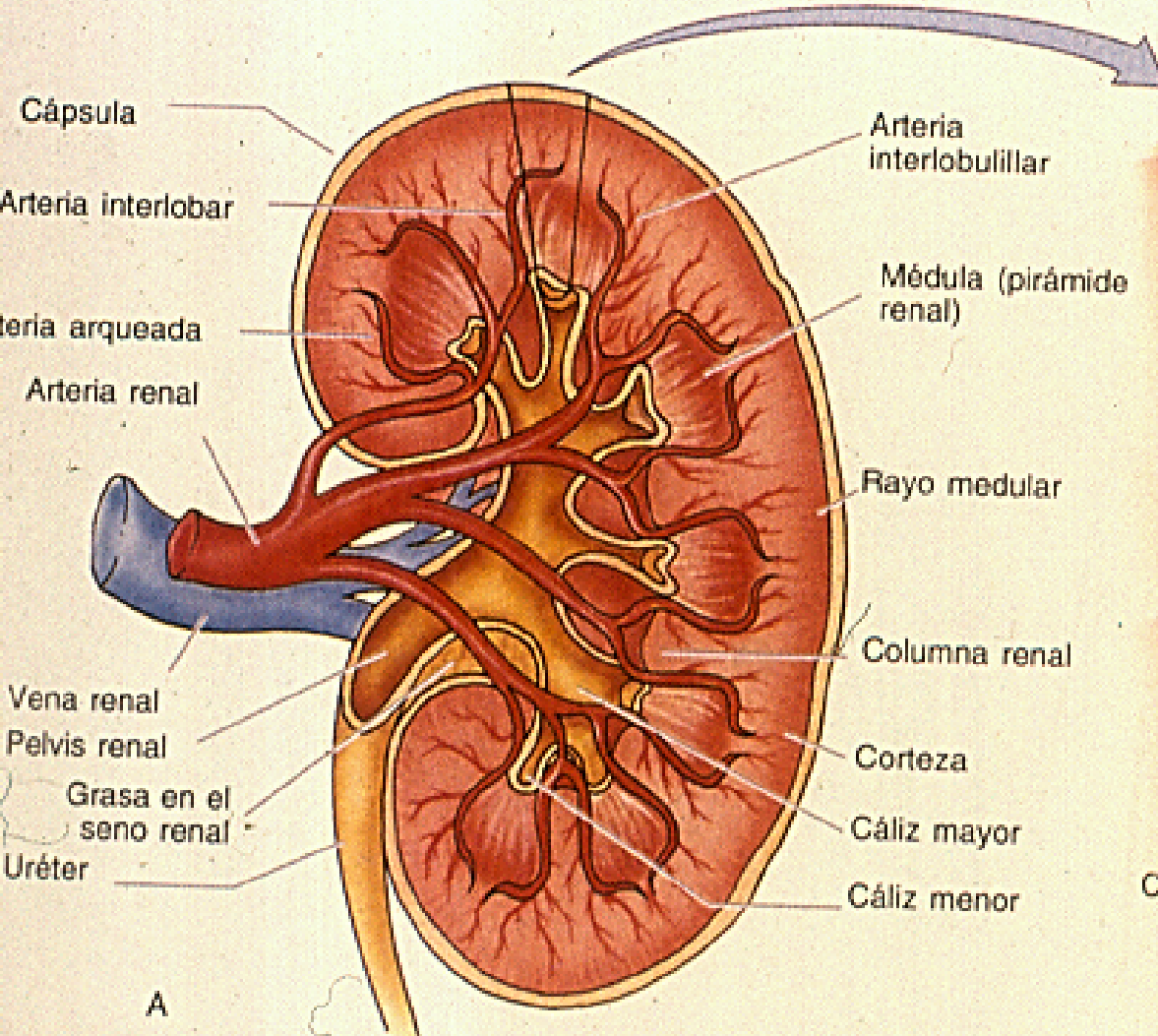


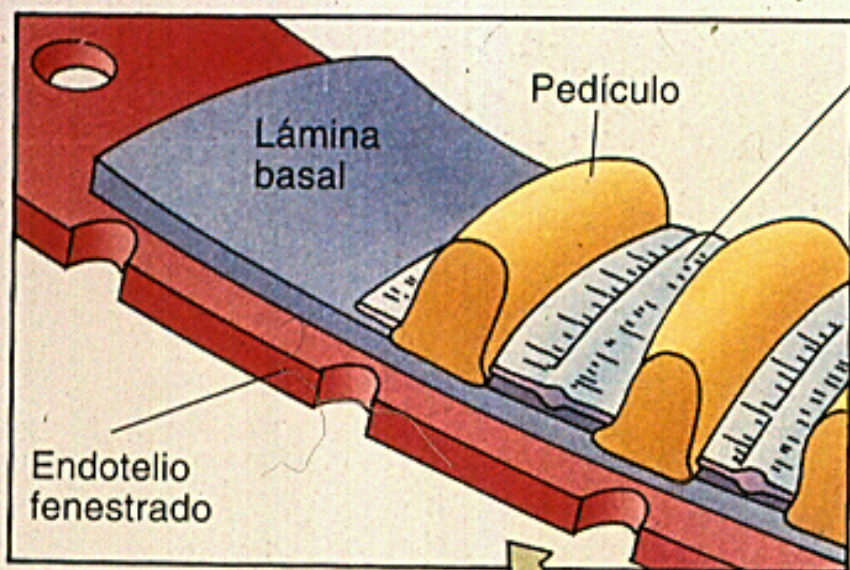










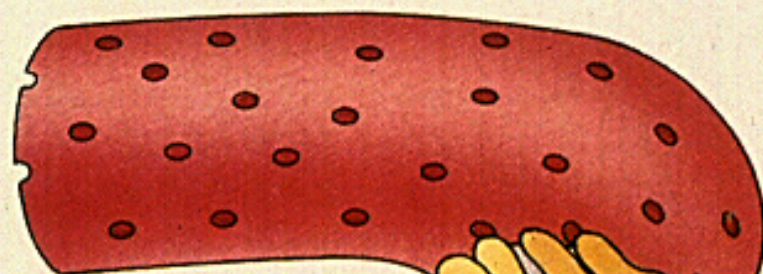


Diafragma de la
hendidura de filtración

Pedículo

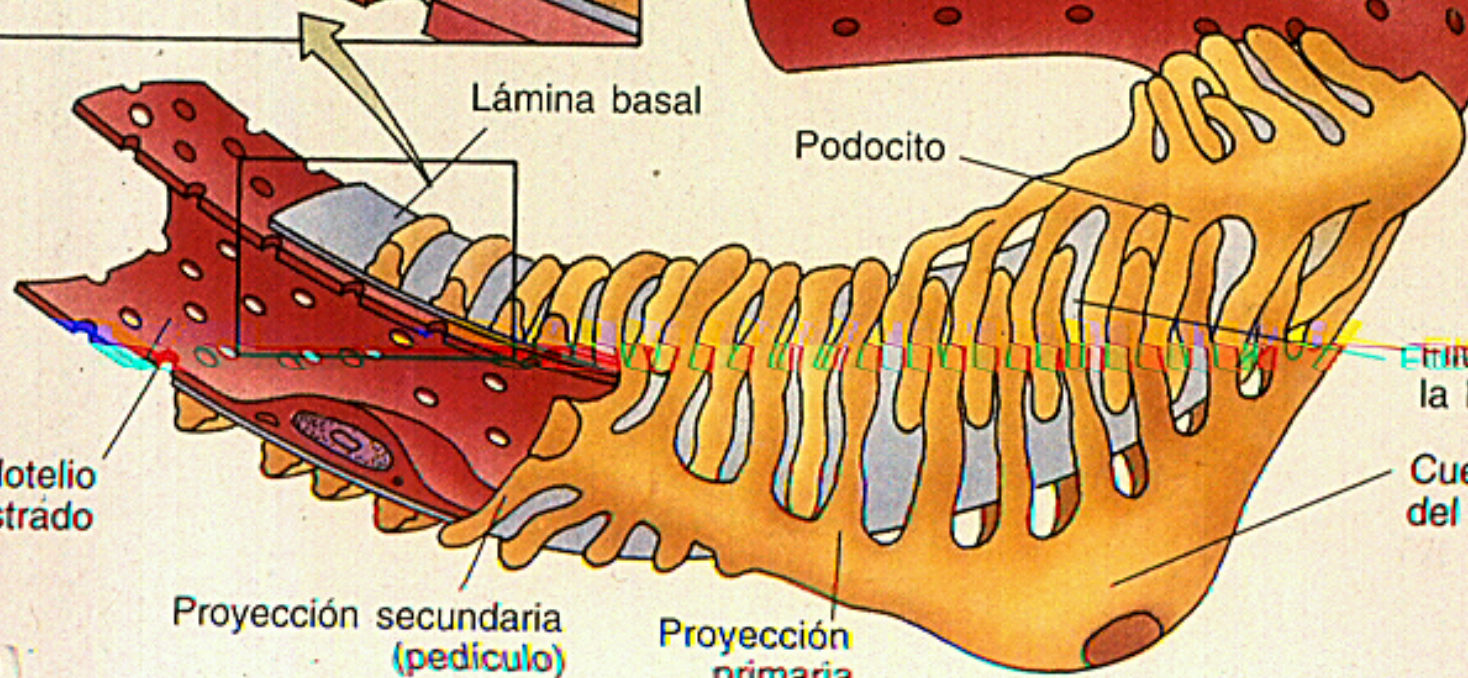
Lámina
basal

Endotelio
fenestrado



Podocito

Lámina basal



Filtración por
la hendidura

Cuerpo celular
del podocito

Endotelio
fenestrado

Proyección secundaria
(pedículo)

Proyección
primaria

MORFO

