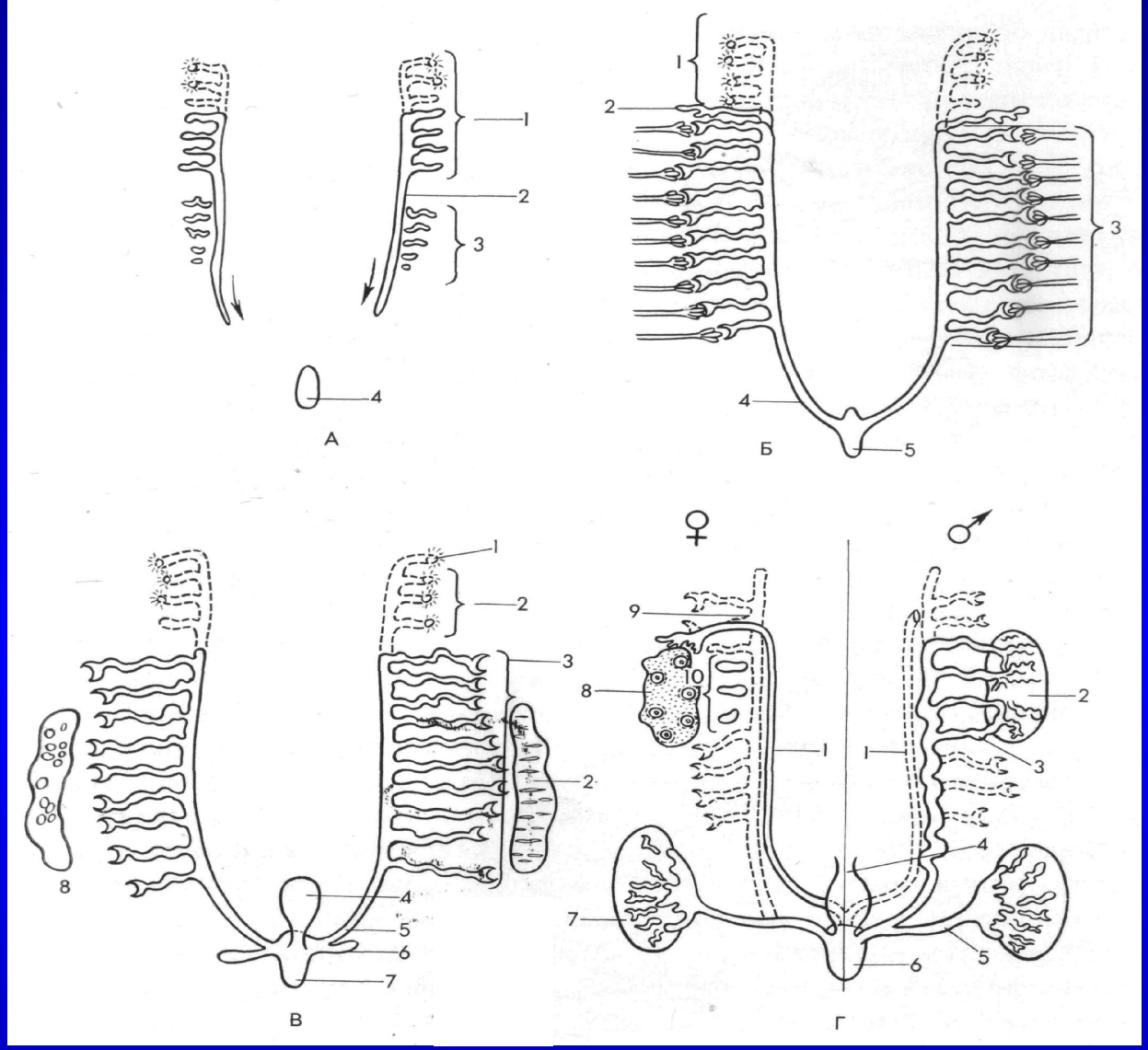
МОЧЕВЫВОДЯЩАЯ СИСТЕМА

Лектор: д.м.н., профессор
Сырцов В.К.

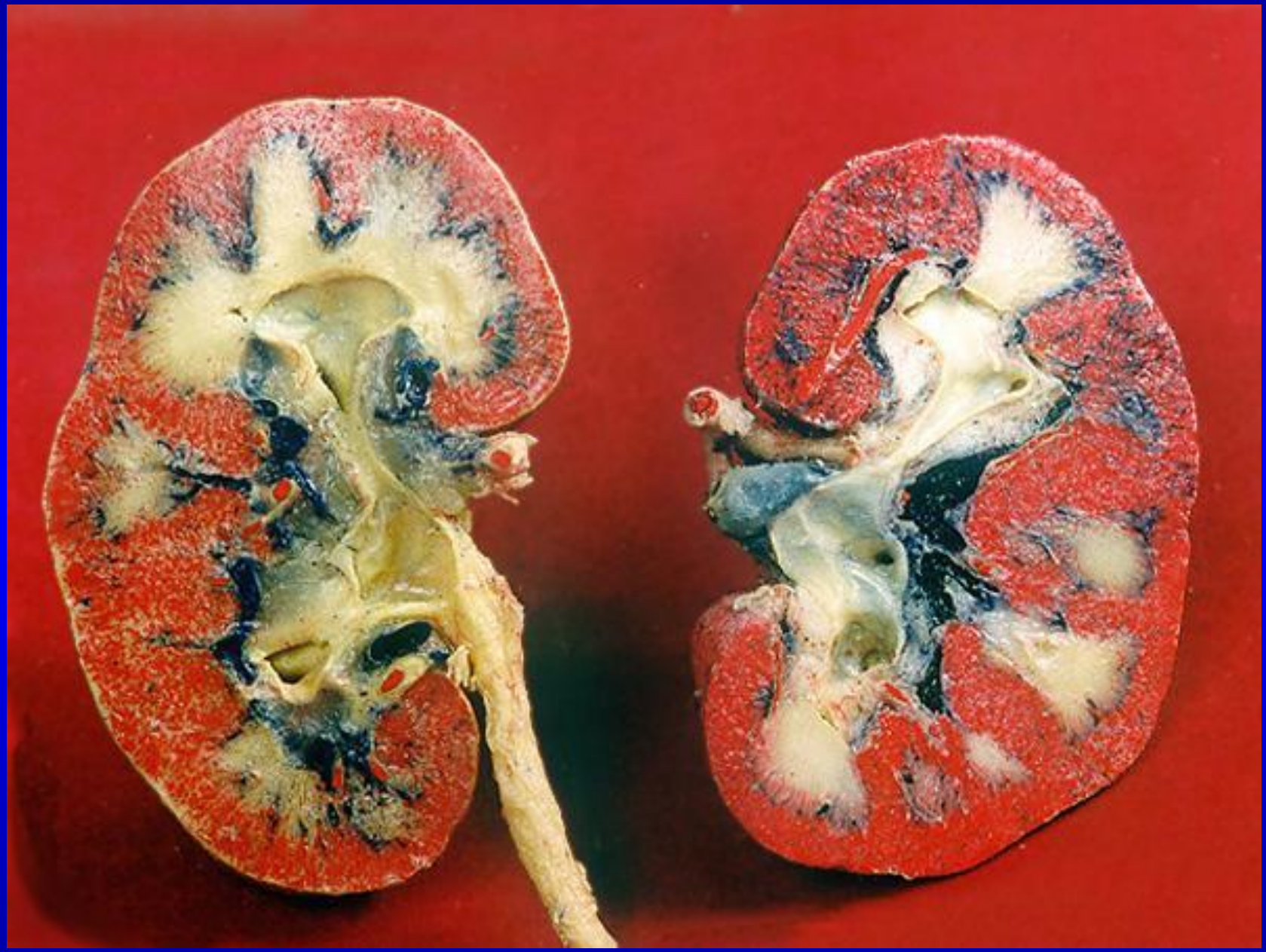


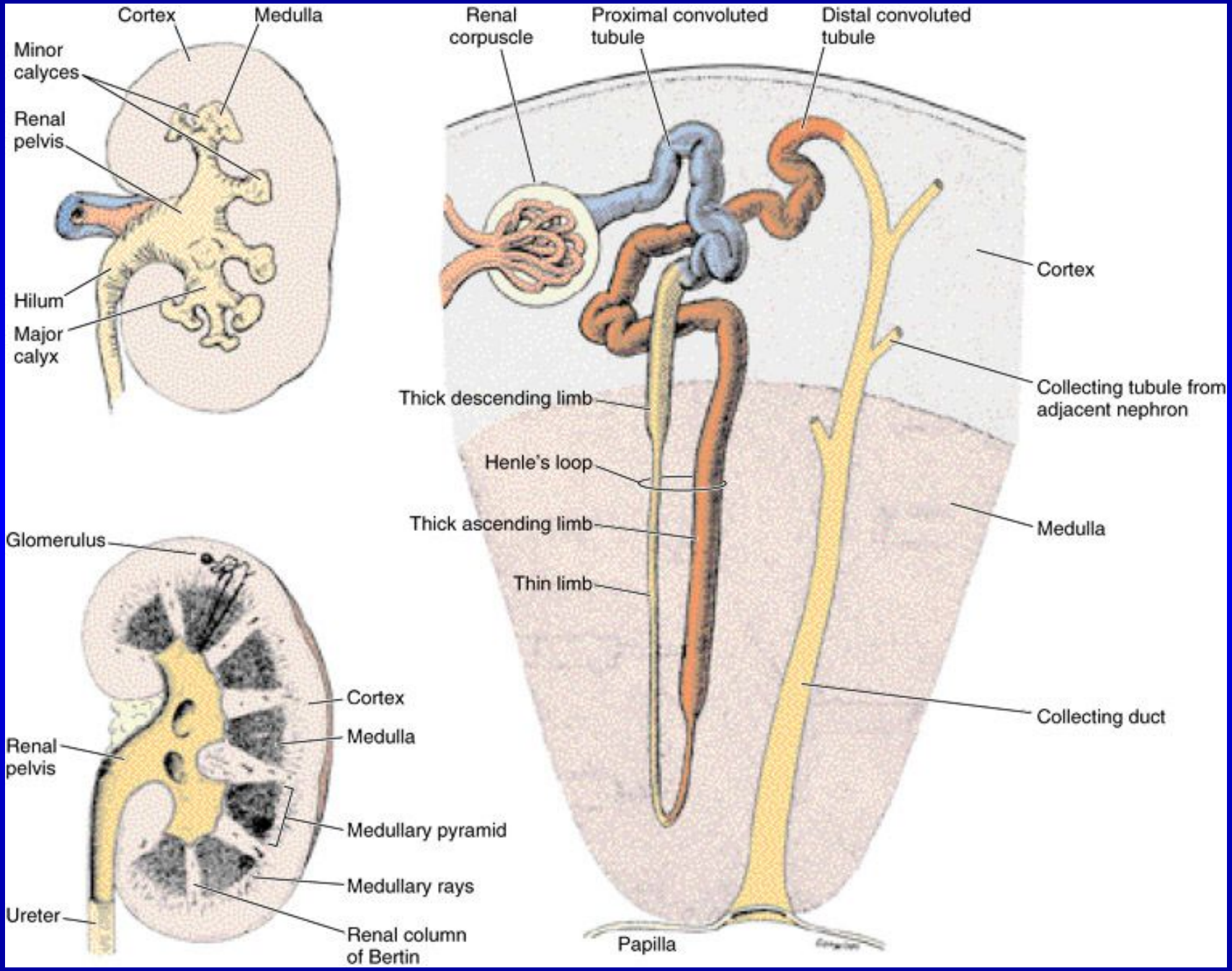
А: 1 - канальцы пронефроса; 2 - проток пронефроса; 3 - канальцы мезонефроса; 4 - клоака;

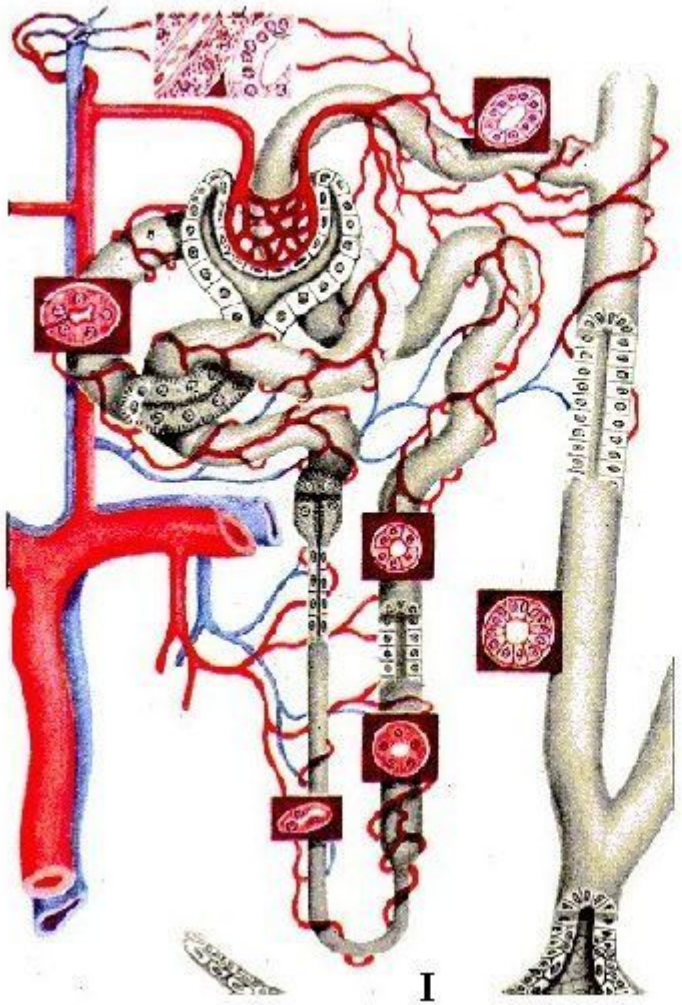
Б: 1 — канальцы пронефроса (дегенерирующие); 2 — канальцы мезонефроса с нефростомами; 3 - канальцы мезонефроса без нефростомов; 4 — проток метанефроса; 5 - клоака;

В: 1 - канальцы пронефроса; 2 - канальцы мезонефроса без нефростомов; 4 - аллантоис; 5 - проток мезонефроса; 6 - проюк метанефроса; 7 - клоака;

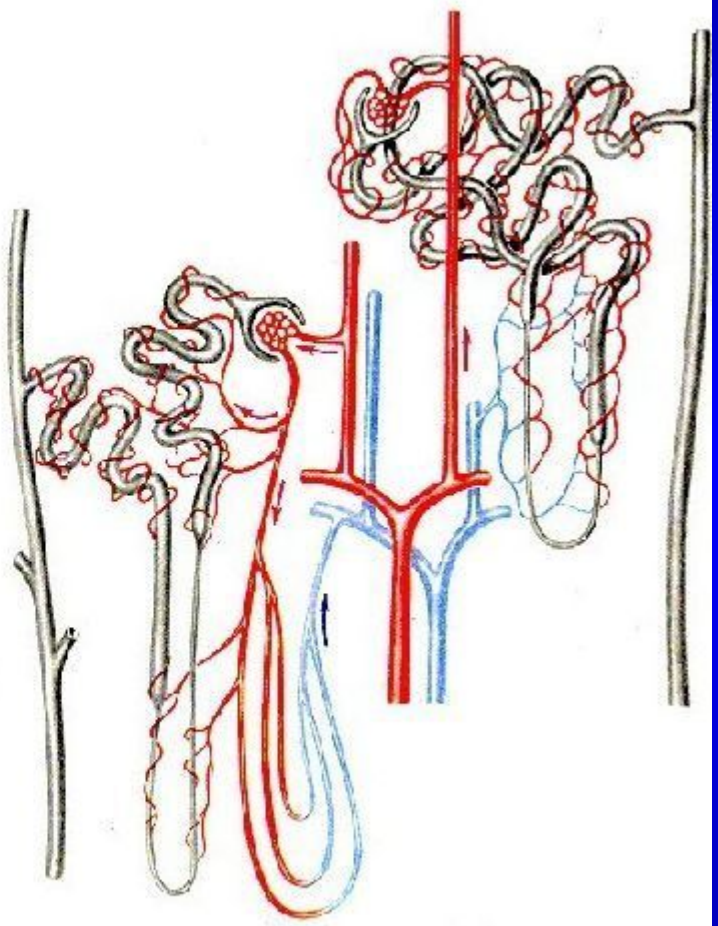
Г: 1 - мюллеровы протоки; 2 — семенник; 3 — канальцы мезонефроса; 4 - аллантоис; 5 - проток метанефроса; 6 - клоака; 7 - канальцы метанефроса; 8 - яичник; 9 — дегенерирующие канальцы и проток мезонефроса; 10 - оофорон и парооформон (по Пэттену в модификации).




Cortex
Medulla
Minor calyces
Renal pelvis
Hilum
Major calyx
Glomerulus
Cortex
Renal pelvis
Medulla
Medullary pyramid
Medullary rays
Ureter
Renal column of Bertin
Renal corpuscle
Proximal convoluted tubule
Distal convoluted tubule
Cortex
Collecting tubule from adjacent nephron
Thick descending limb
Henle's loop
Thick ascending limb
Thin limb
Medulla
Collecting duct
Papilla

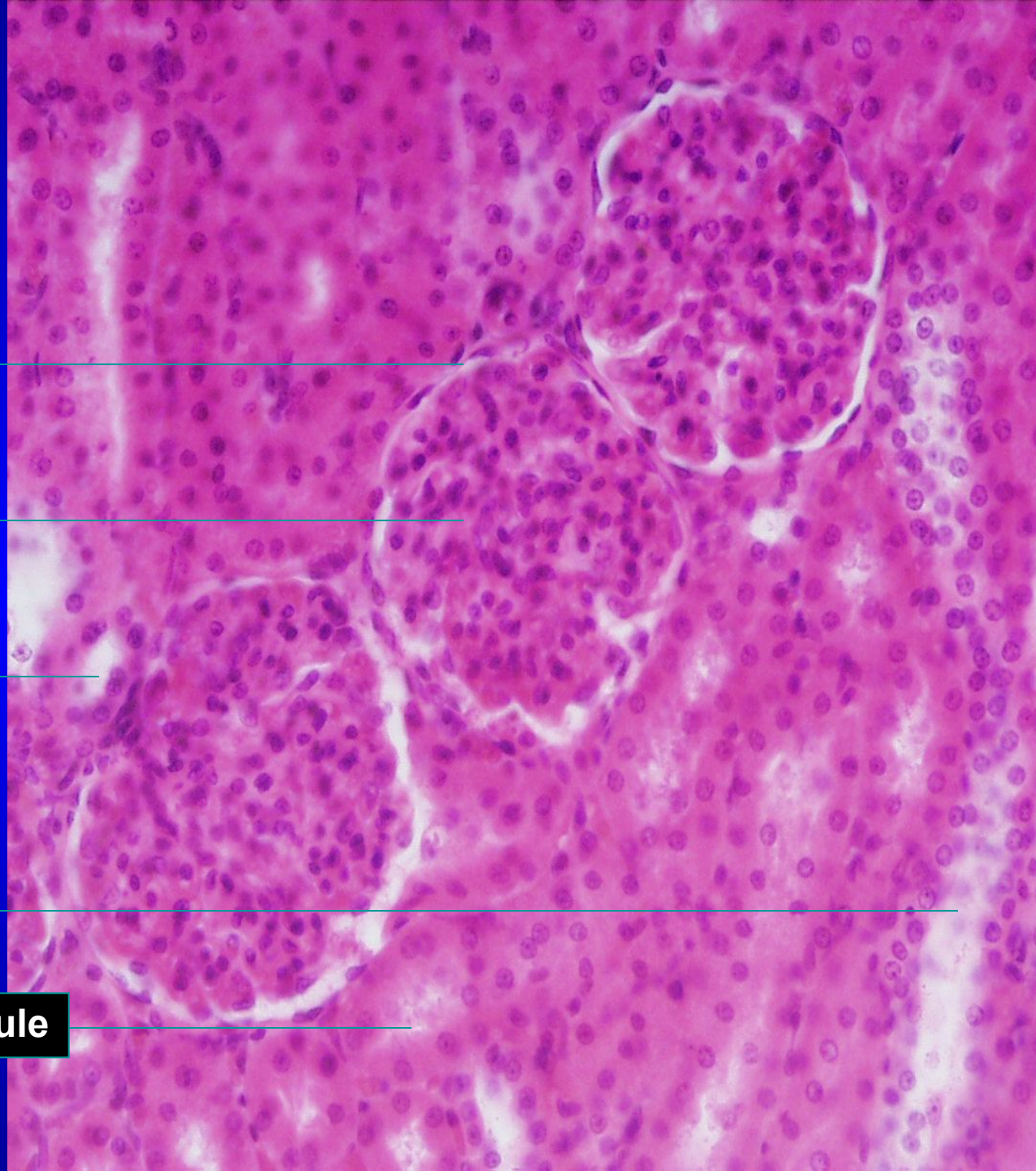


I

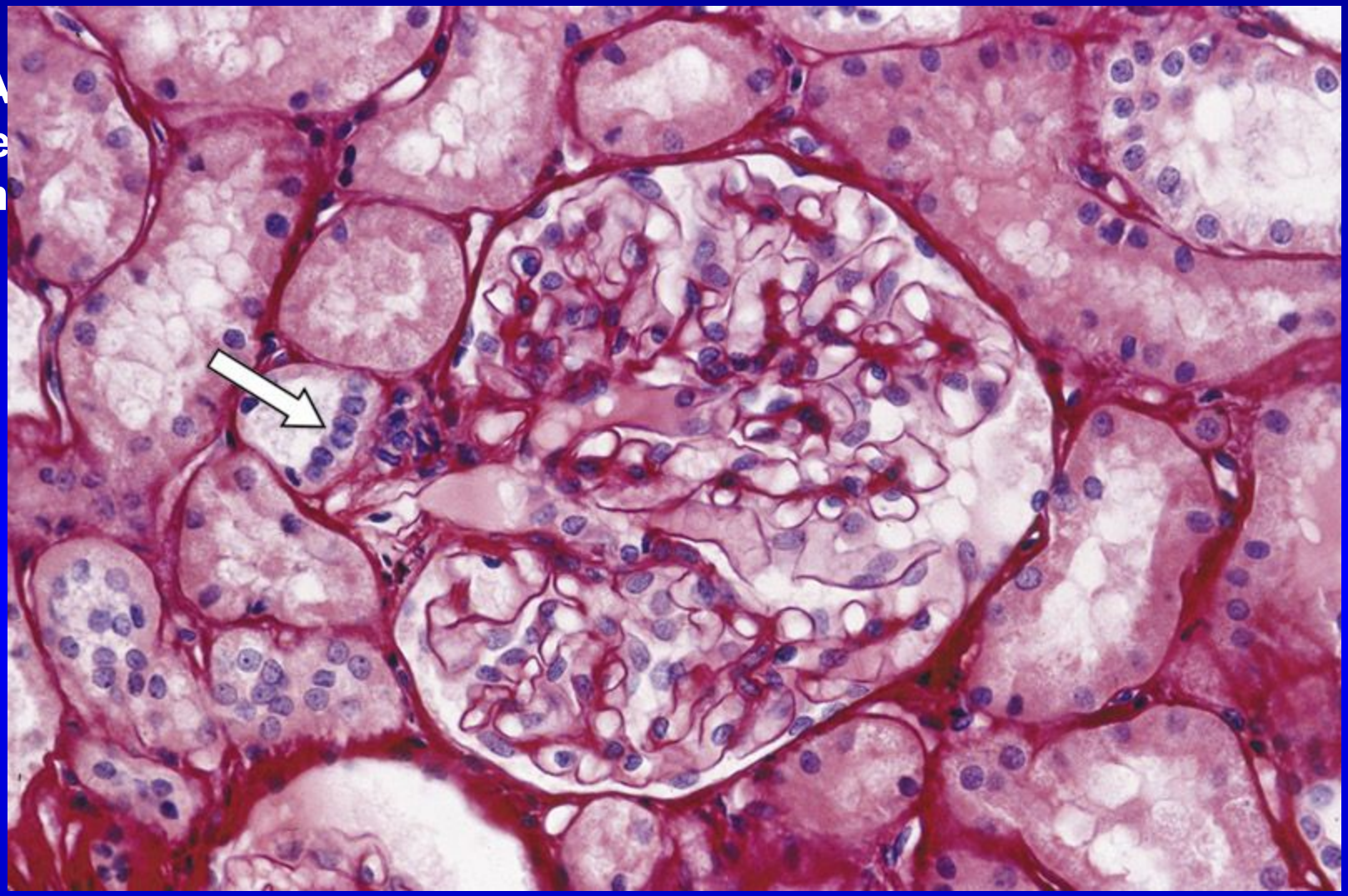


II

RENAL CORTEX

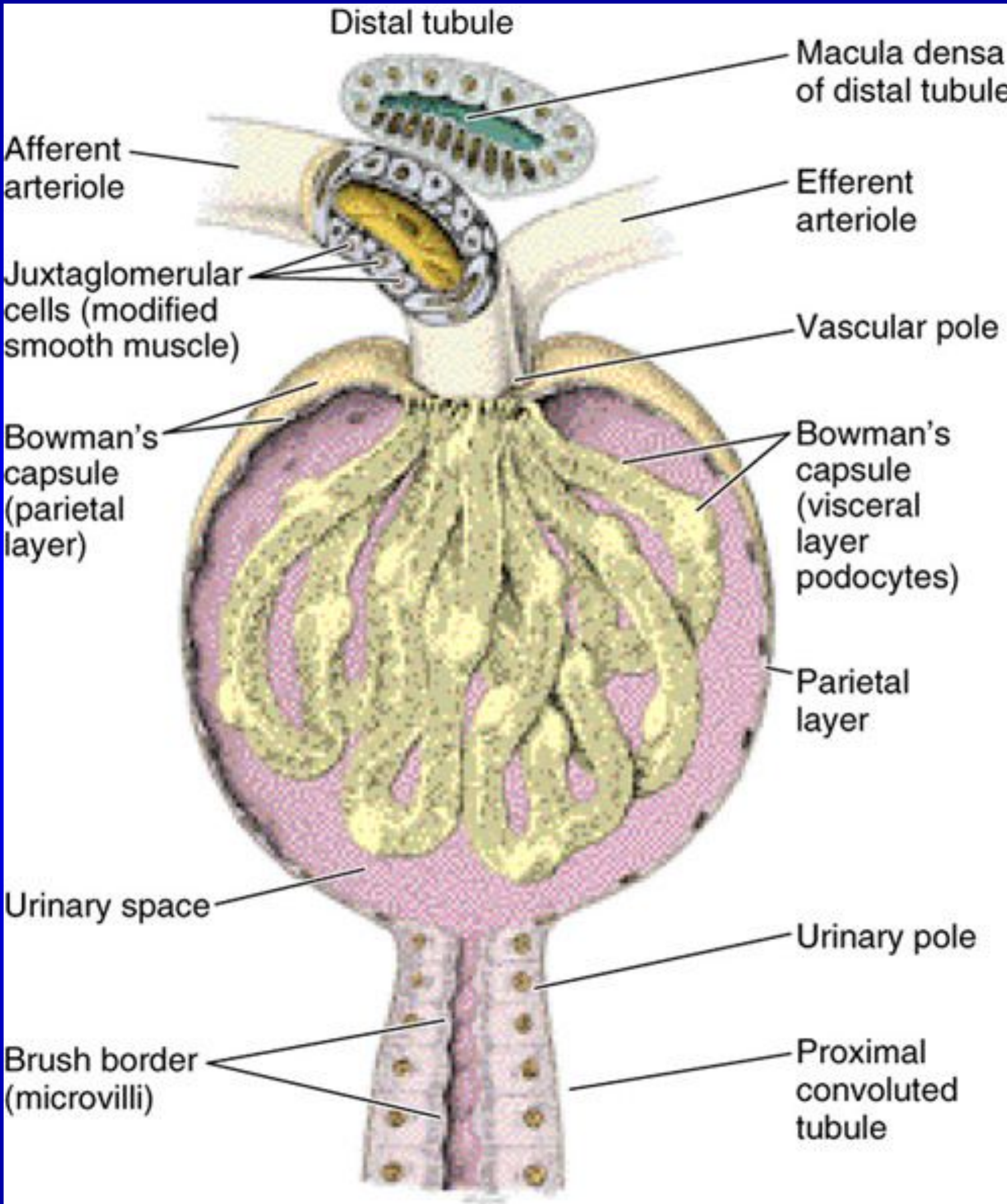


A
re
m



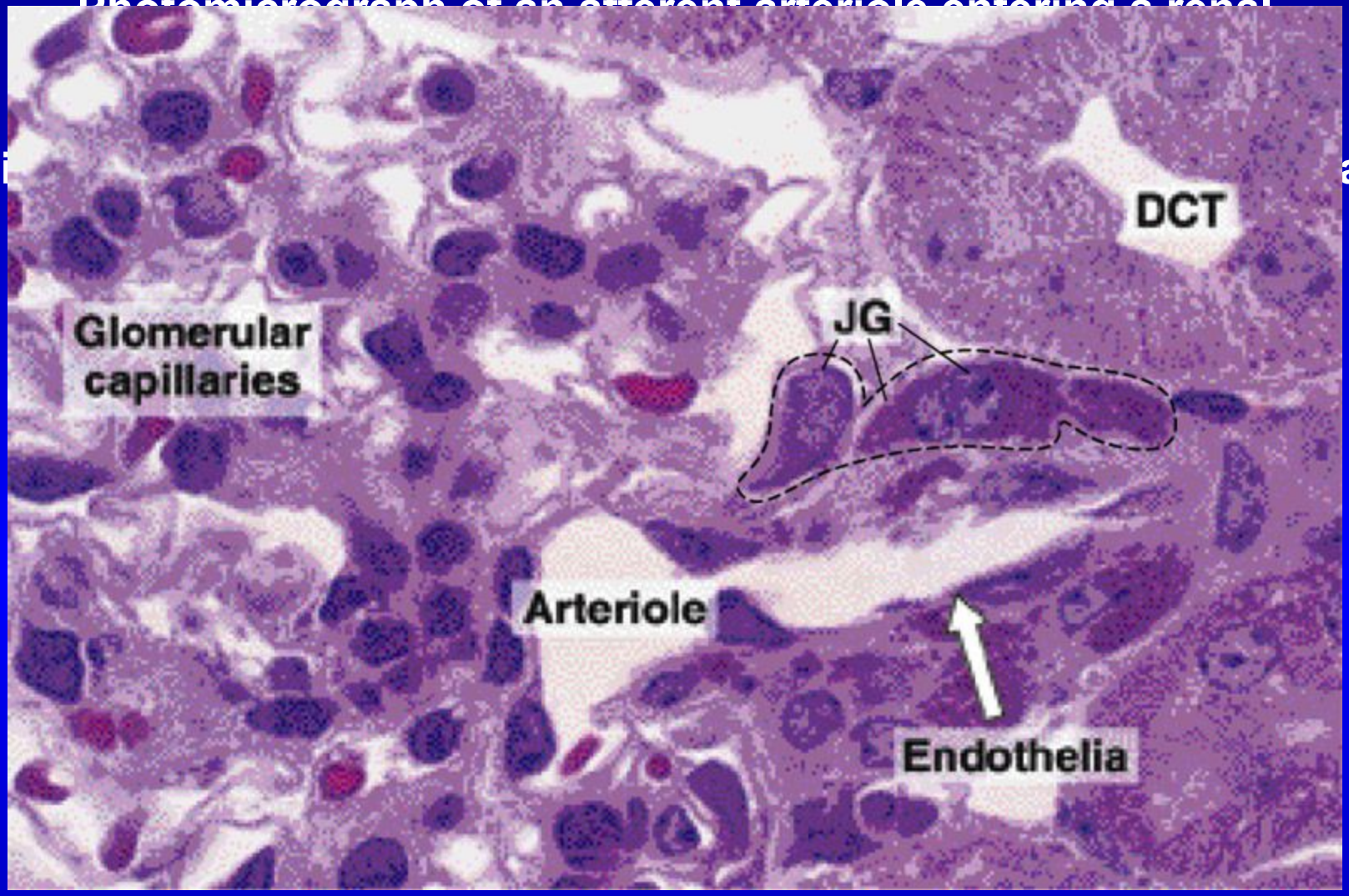
Photomicrograph of renal cortex.

A macula densa is clearly seen (arrow) at the vascular pole of a renal corpuscle. Picrosirius-hematoxylin (PSH) stain. Medium magnification.

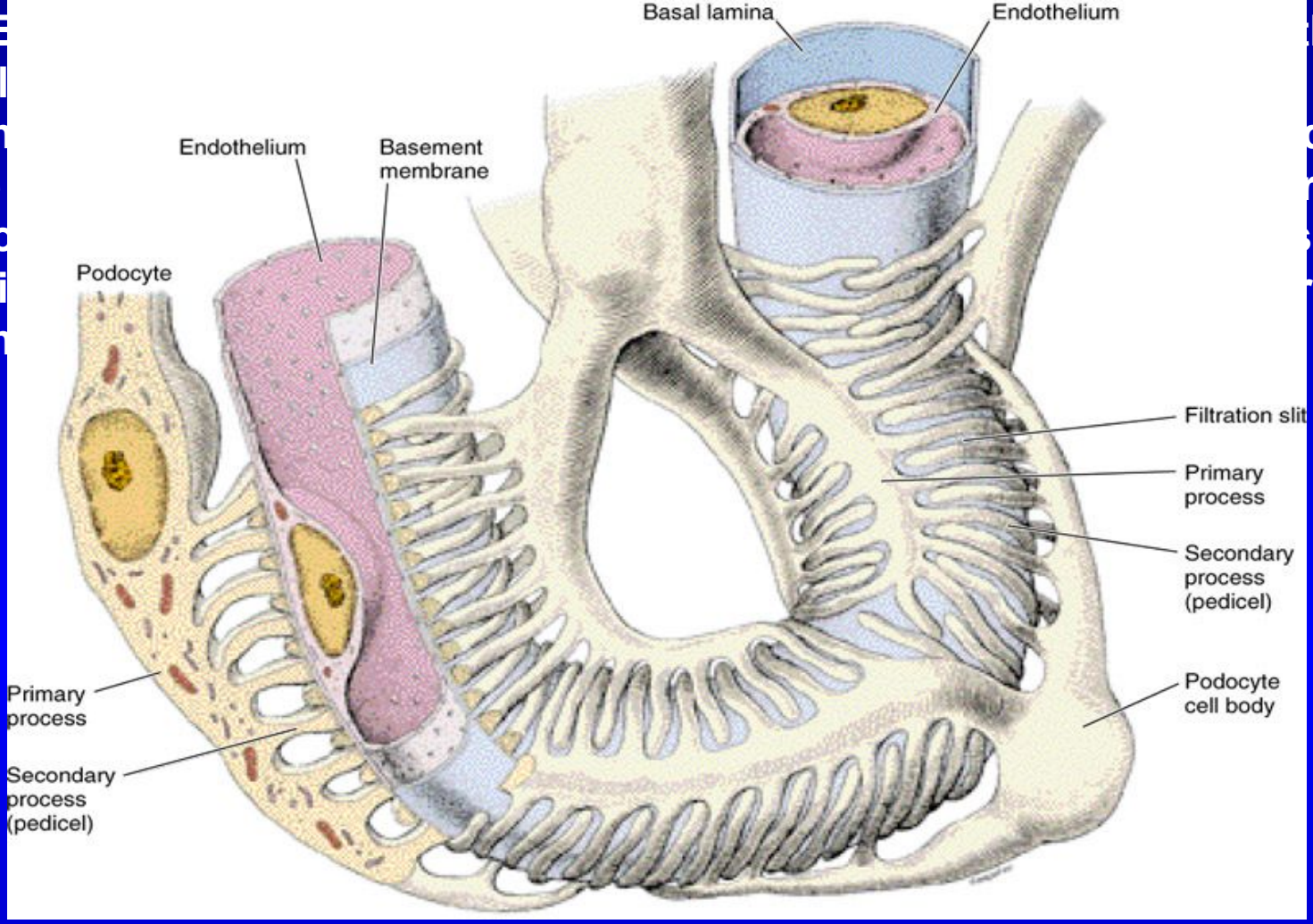


The renal corpuscle.

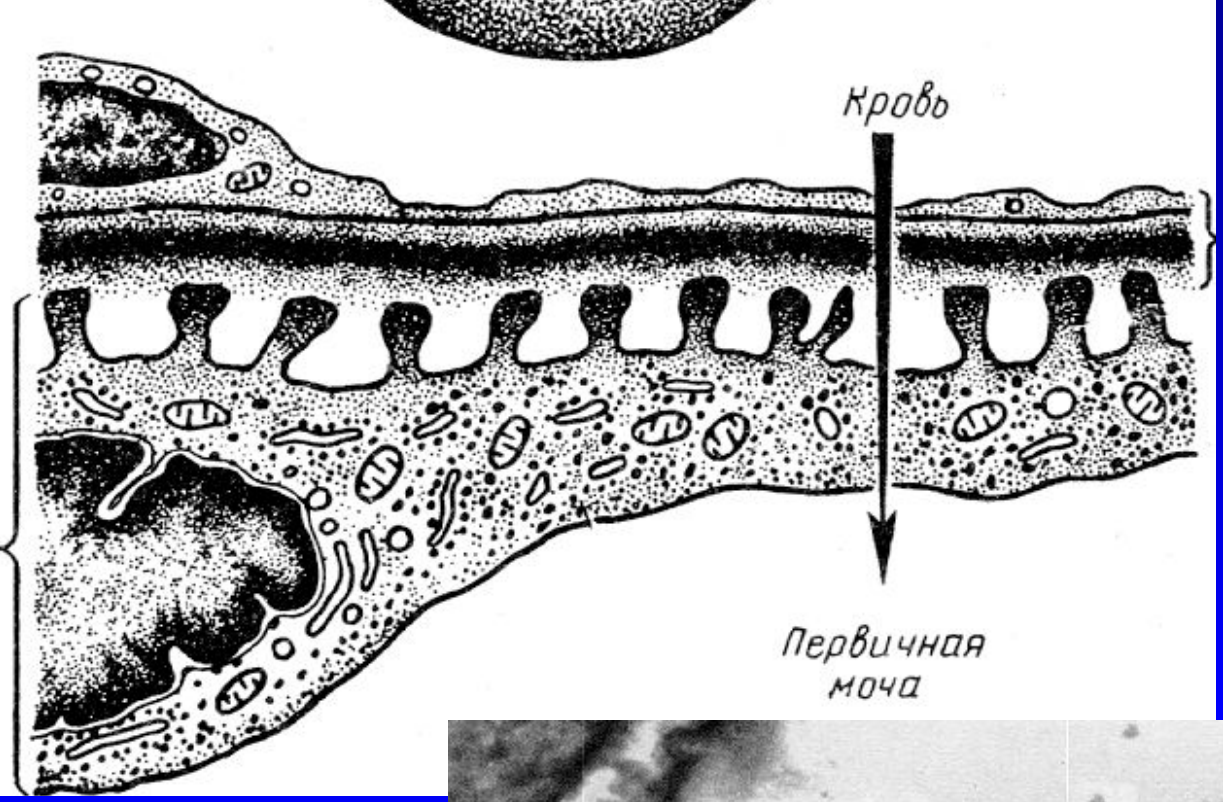
The upper part of the drawing shows the vascular pole, with afferent and efferent arterioles and the macula densa. Note the juxtaglomerular cells in the wall of the afferent arteriole. Podocyte processes cover the outer surfaces of the glomerular capillaries; the part of the podocyte containing the nucleus protrudes into the urinary space. Note the flattened cells of the parietal layer of Bowman's capsule. The lower part of the drawing shows the urinary pole and the proximal convoluted tubule.

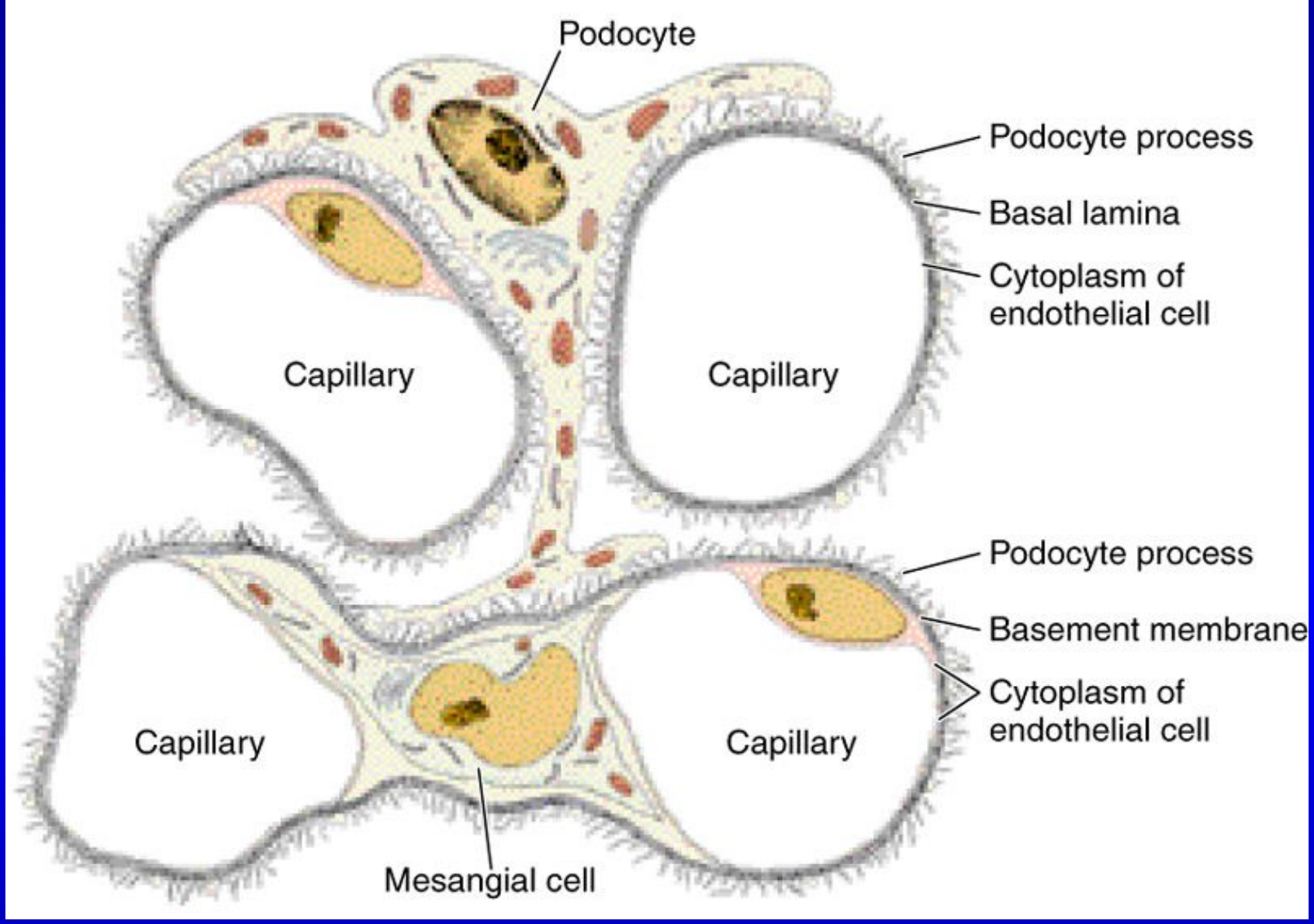


Photomicrograph of an afferent arteriole entering a renal corpuscle. The wall of this arteriole shows the renin-producing juxtaglomerular (JG) cells (broken line). At the upper right is a distal convoluted tubule (DCT) with many elongated mitochondria. PT stain. High magnification.

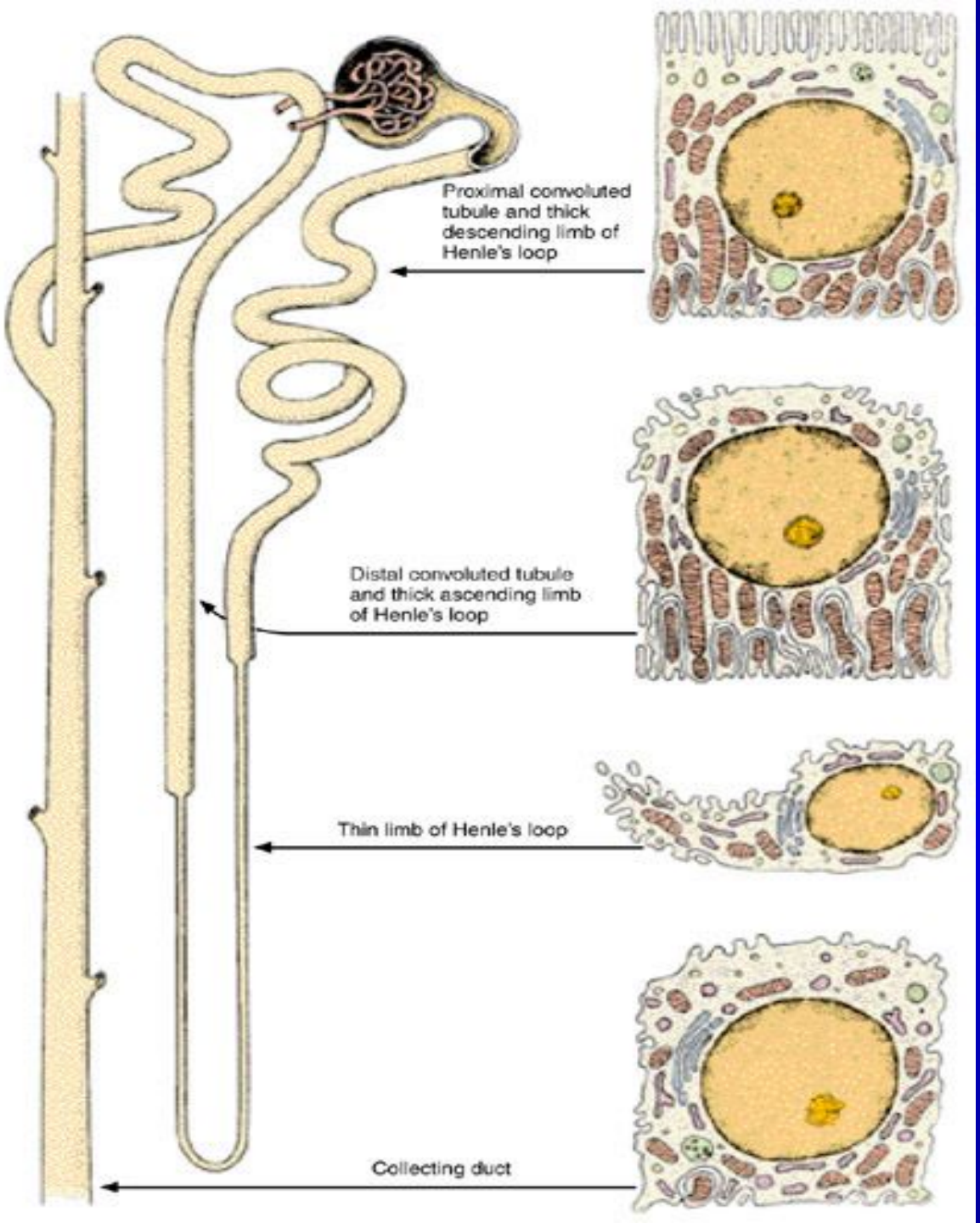


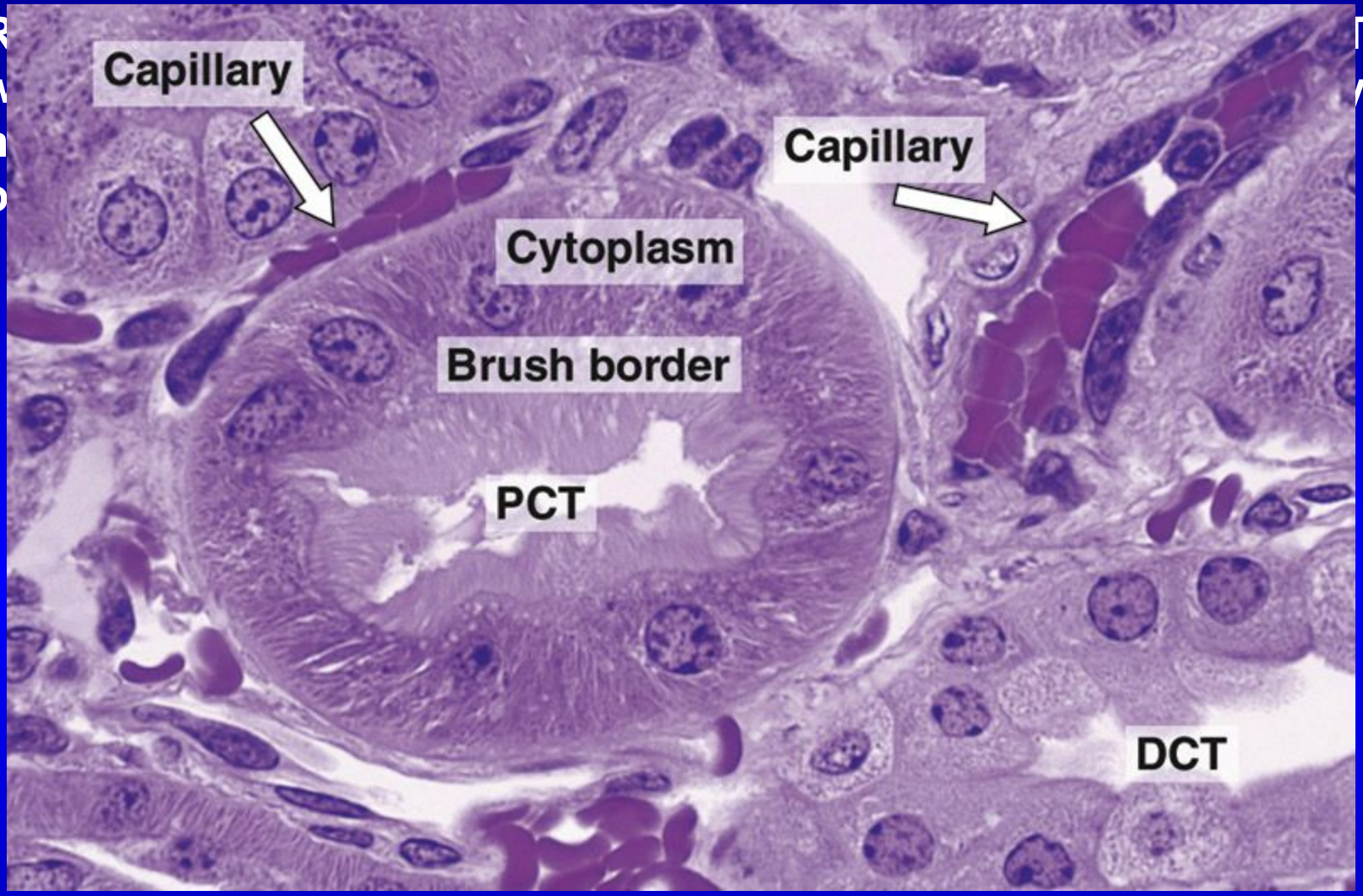
Schematic representation of a glomerular capillary with the visceral layer of Bowman's capsule (formed of podocytes). In this capillary, endothelial cells are fenestrated, but the basal lamina on which they rest is continuous. At left is a podocyte shown in partial section. As viewed from the outside, the part of the podocyte that contains the nucleus protrudes into the urinary space. Each podocyte has many primary processes, from which arise an even greater number of secondary processes that are in contact with the basal lamina.


Кровь
Первичная
моча

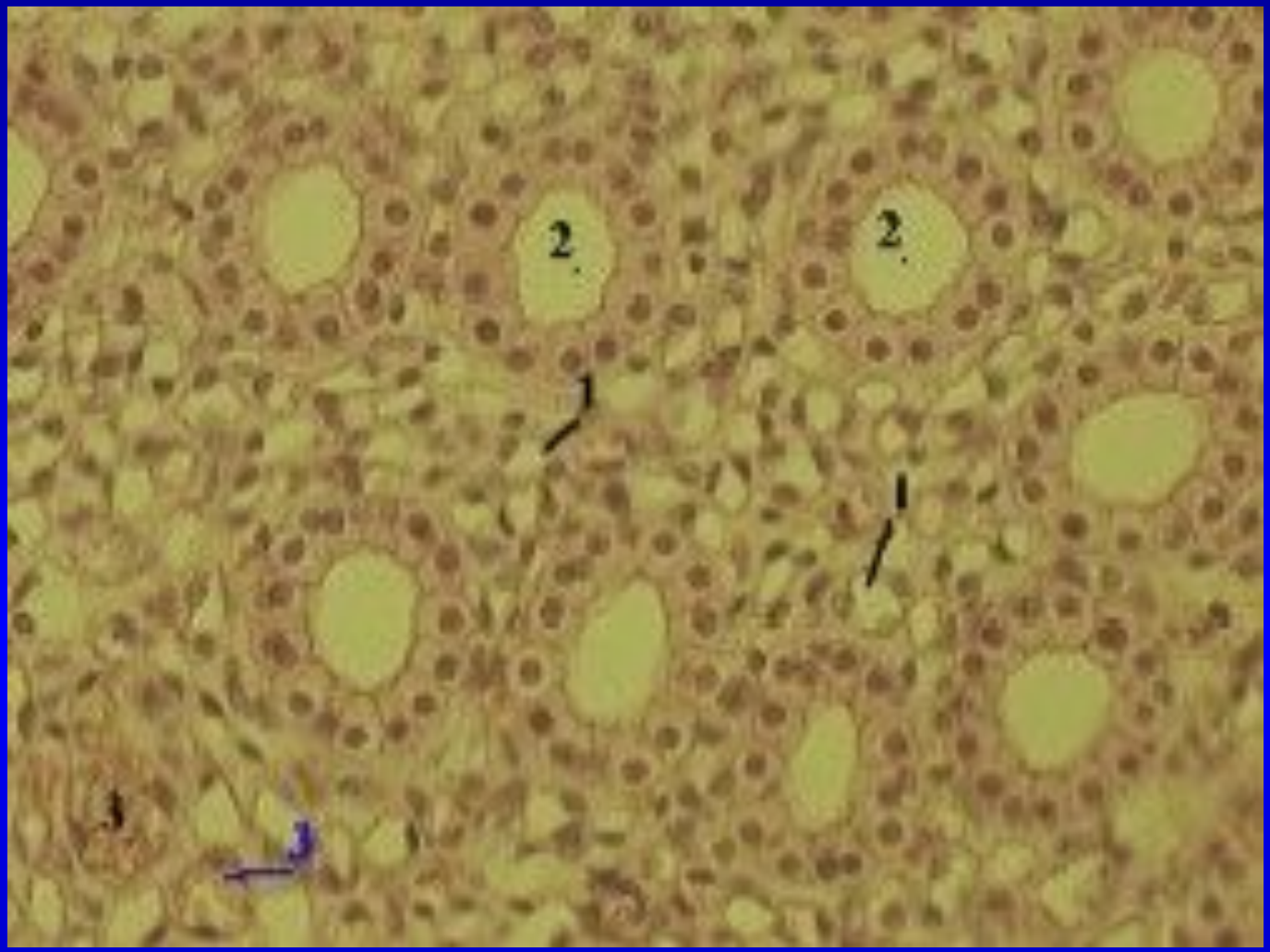


Mesangial cell located between capillaries enveloped by the basement membrane.


Proximal convoluted tubule and thick descending limb of Henle's loop
Distal convoluted tubule and thick ascending limb of Henle's loop
Thin limb of Henle's loop
Collecting duct

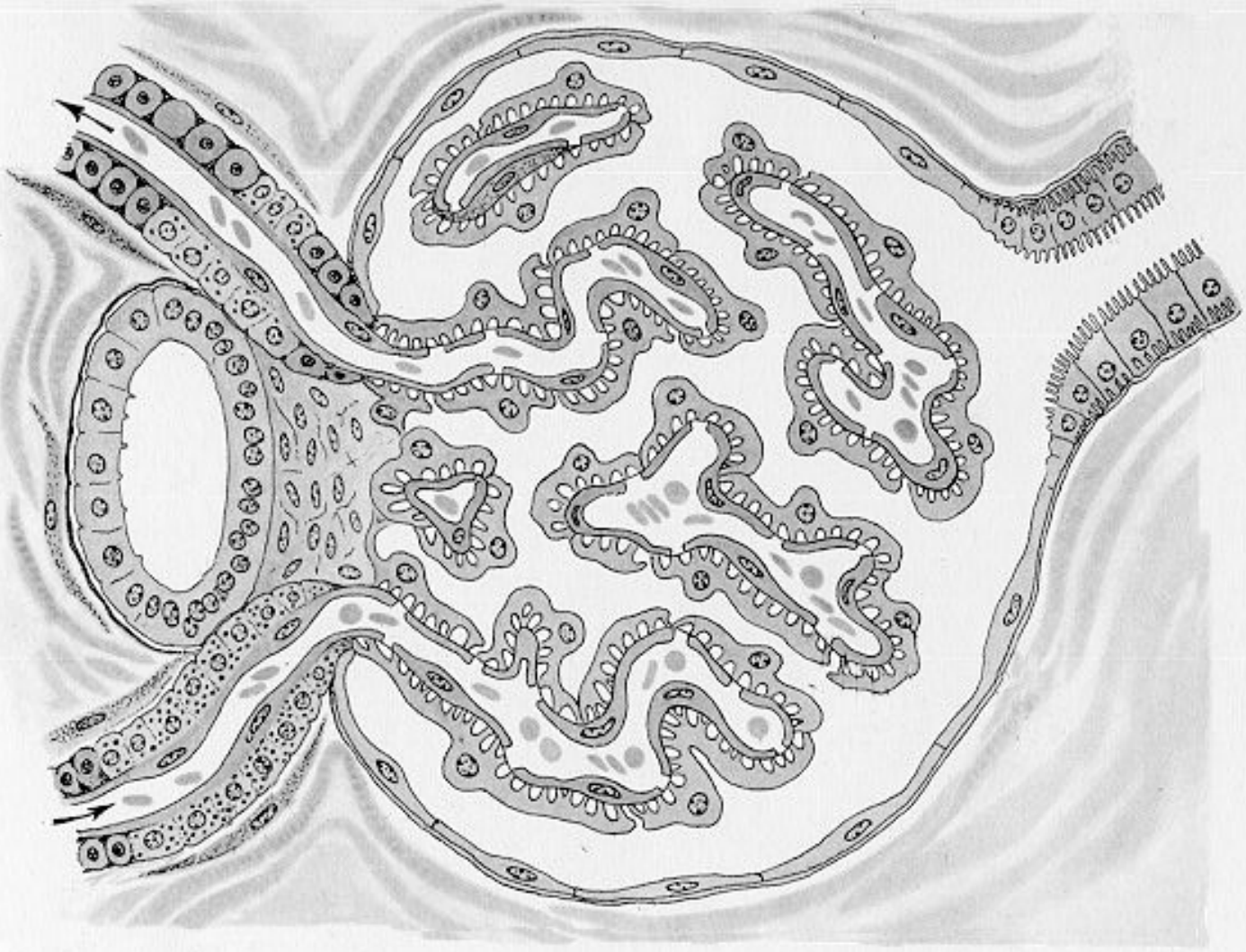


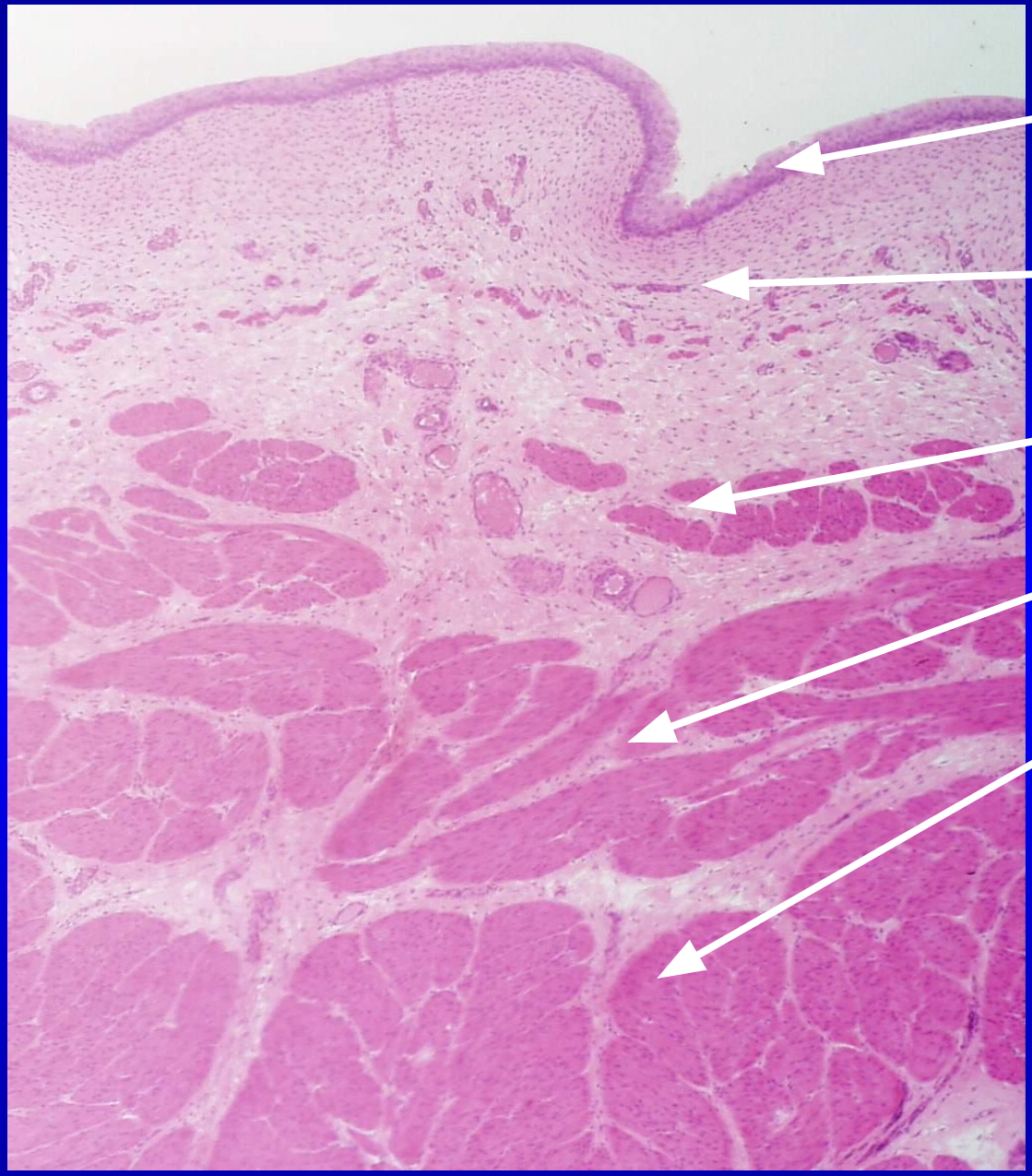
Renal cortex section showing a proximal convoluted tubule (PCT) with its large cuboidal cells presenting a brush border formed by numerous microvilli. Distal convoluted tubules (DCT) are also present.



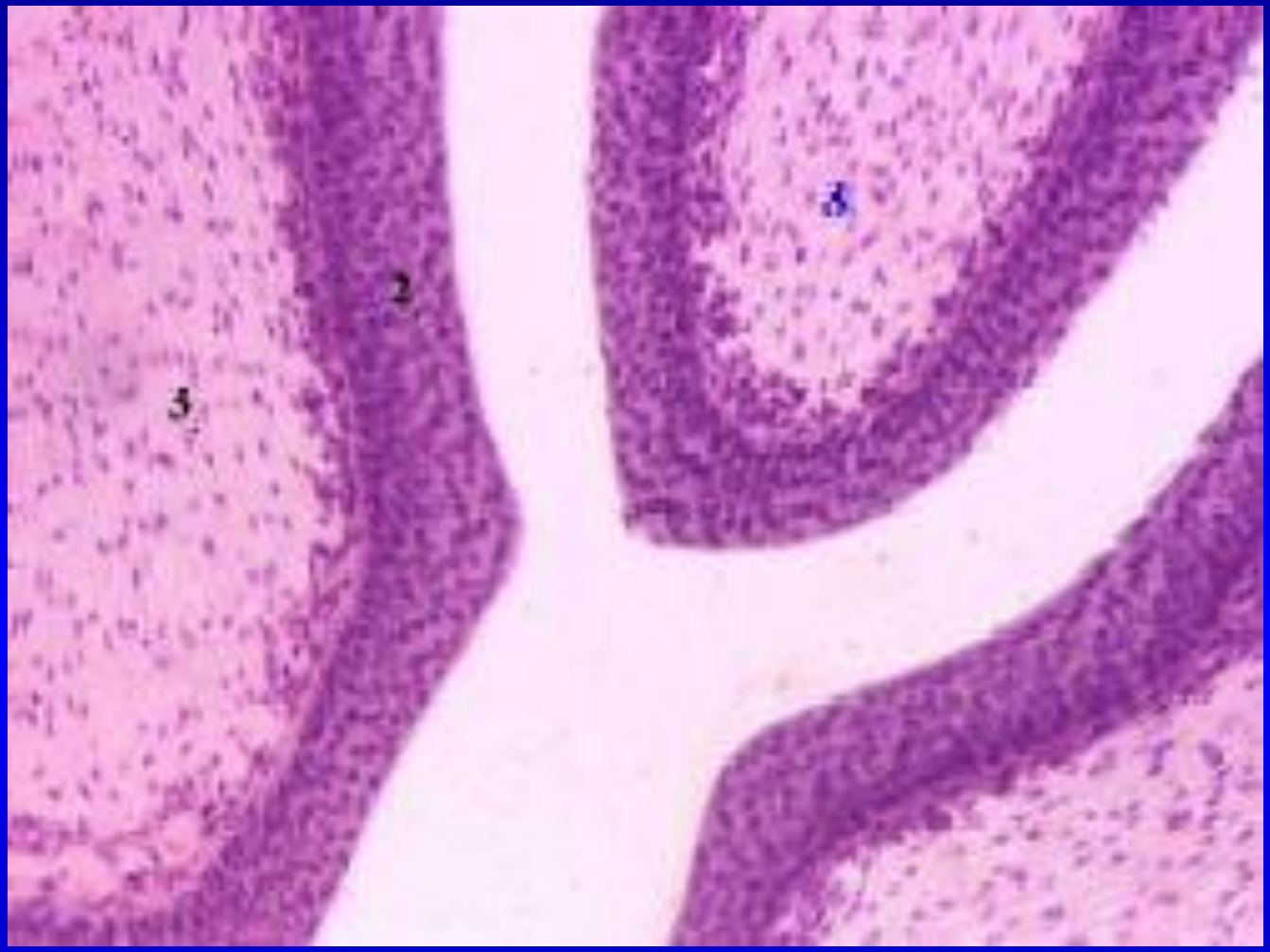
- 1-descending thick limb of the Henle loop
- 2-ascending thick limb of the Henle loop
- 3-blood vessels

Collecting tubule

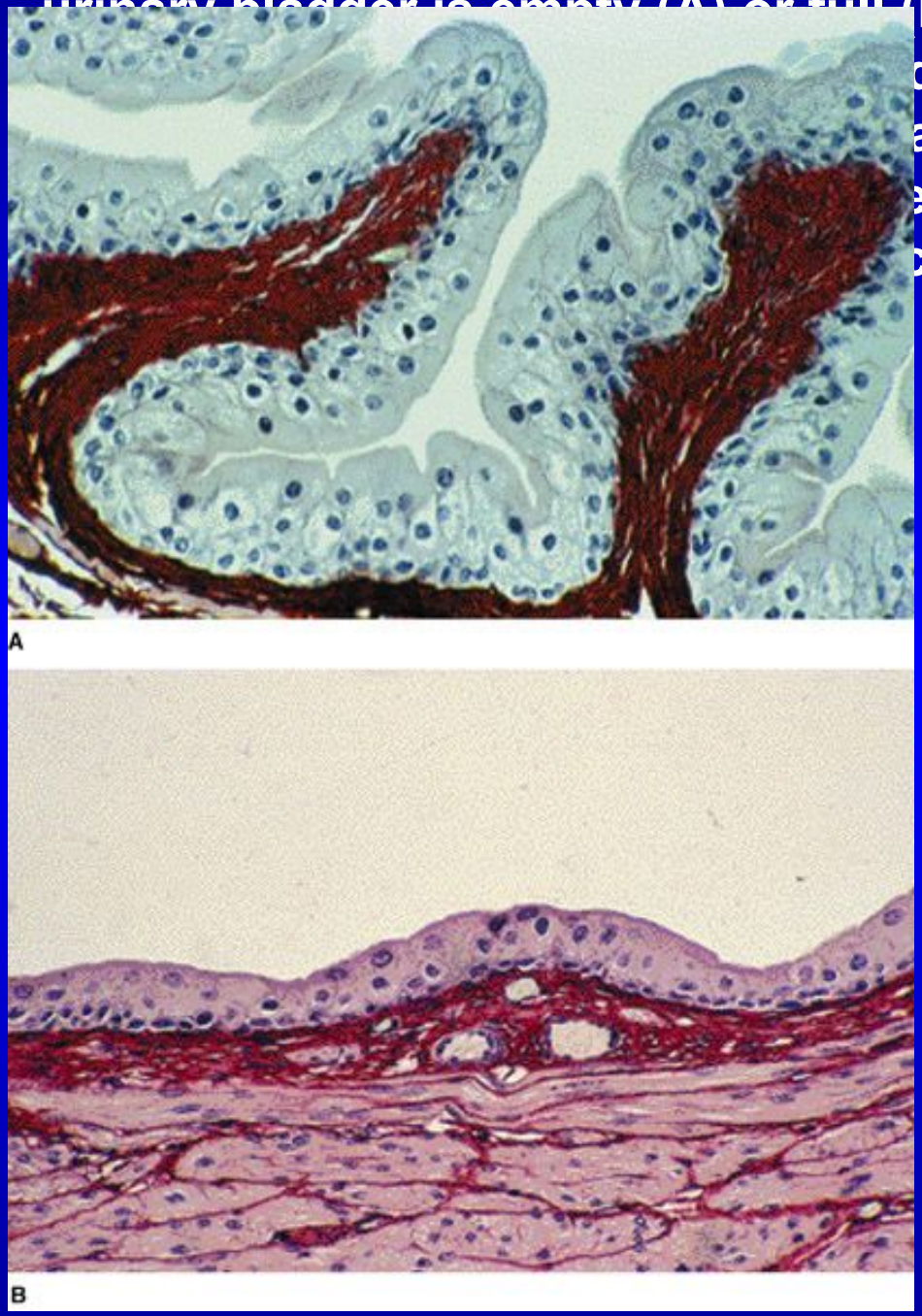




THE URINARY BLADDER



Transitional epithelium



Compare the structure of the transitional epithelium when the urinary bladder is empty (A) or full (B). When the bladder is full, the capacity of epithelial cells to slide upon one another reduces the thickness of the epithelium. As a result, the interior surface of the bladder increases. In B, note the thin strands of collagen fibers separating bundles of smooth muscle cells. PSH stain. Medium magnification.