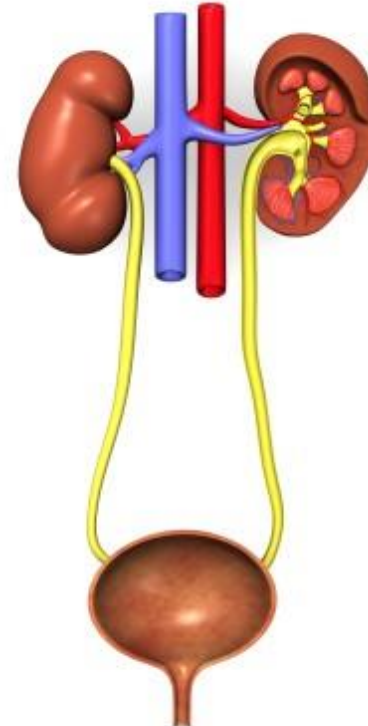
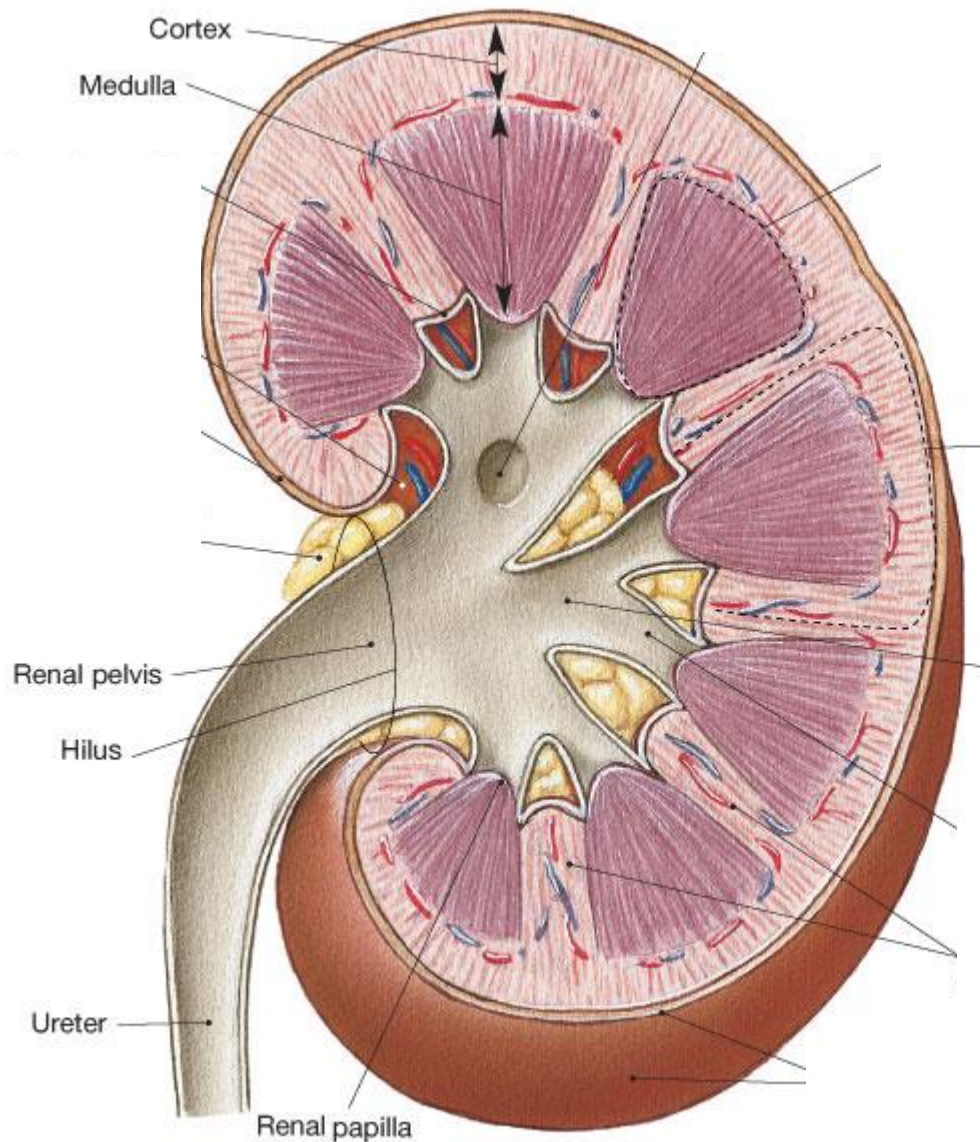




Urinary system

- **Ren**
- **Calyx renalis**
- **Ureter**
- **Vesica urinaria**
- **Urethra**





Kidney (ren, nephros)

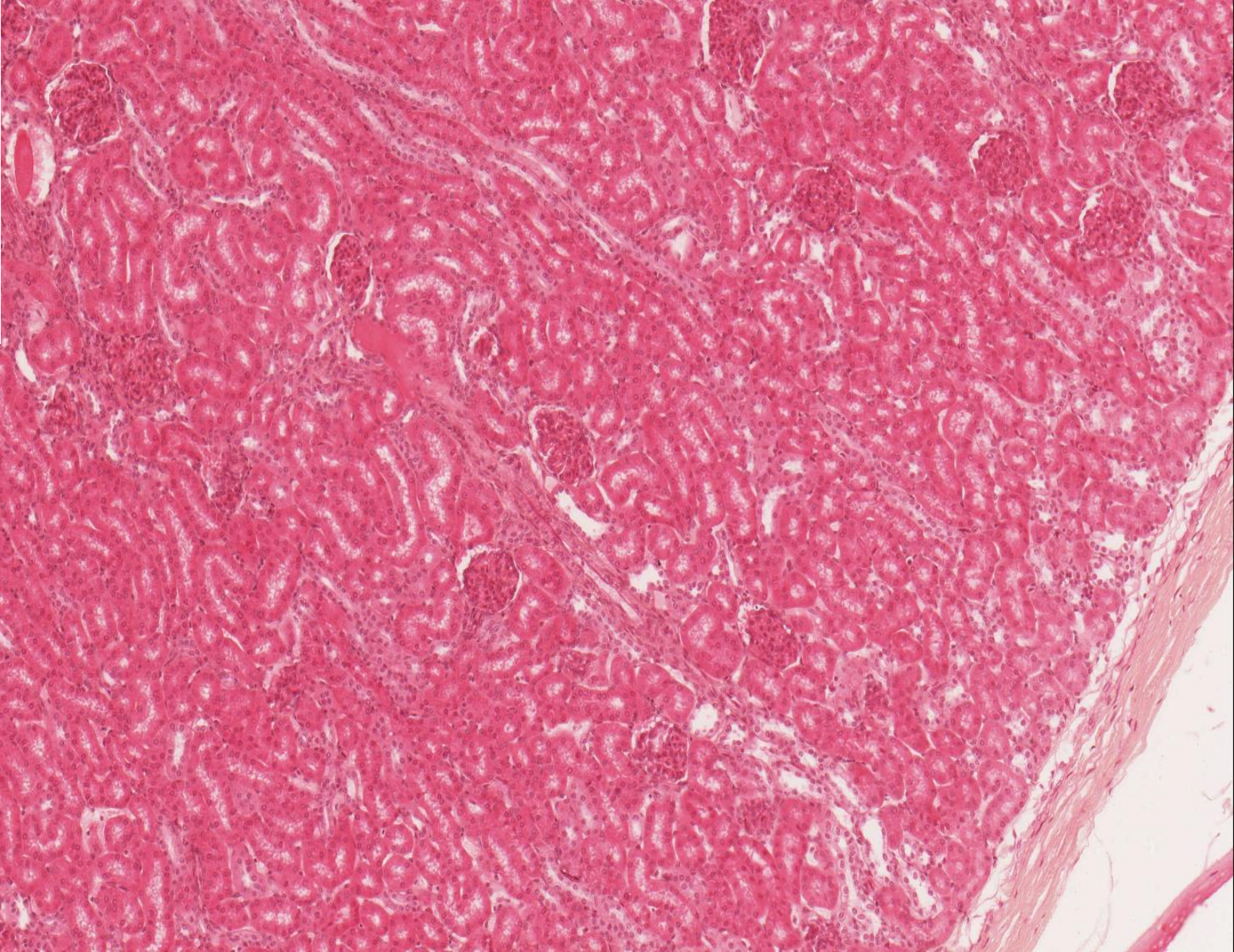
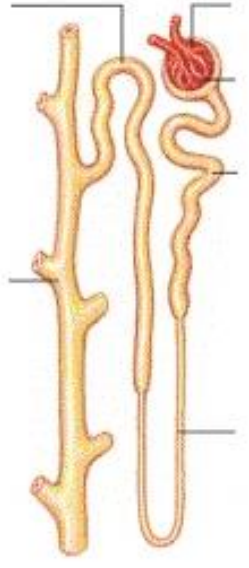
Capsula fibrosa
Capsula adiposa

Cortex:

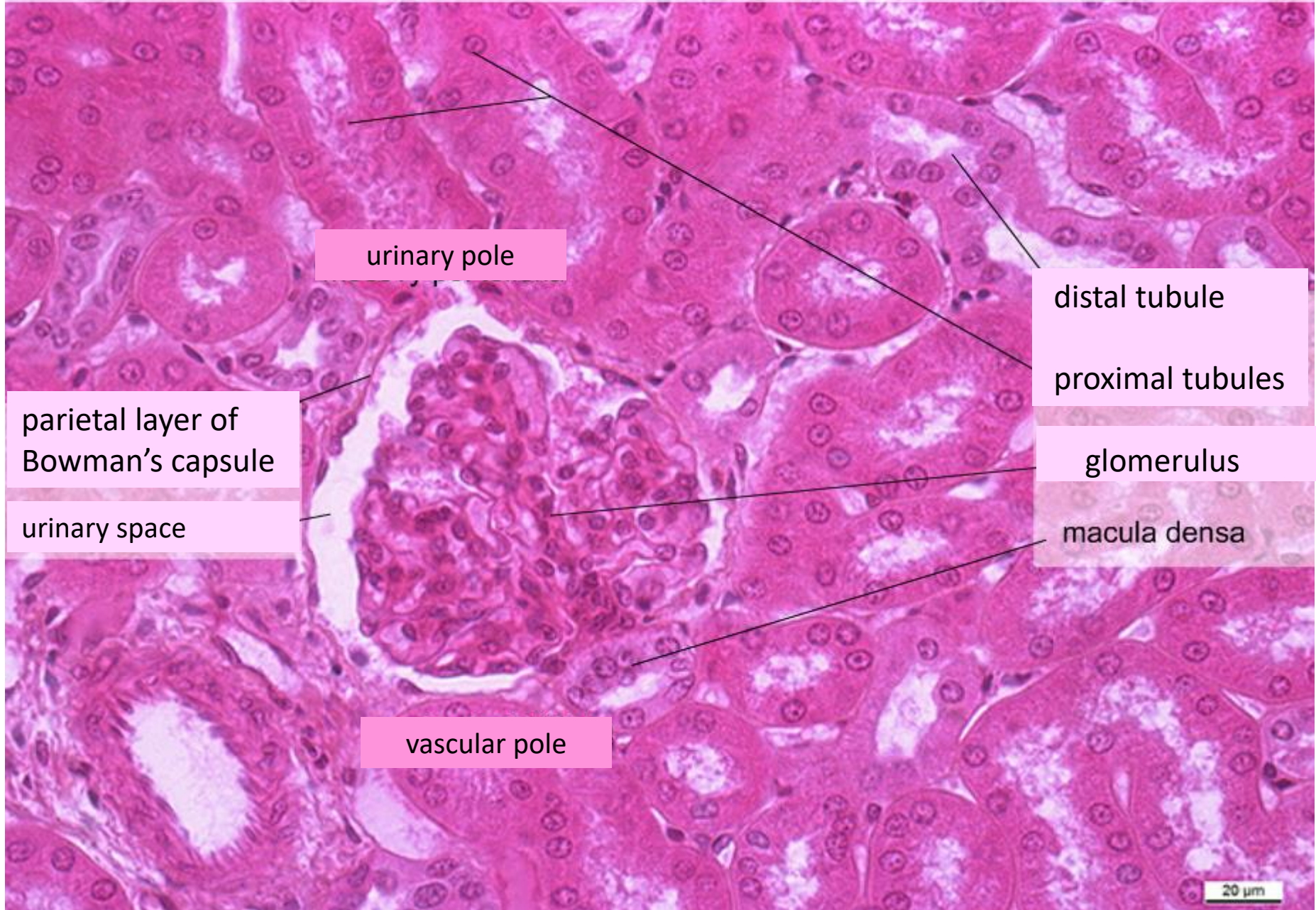
- cortex corticis
- pars radiata corticis
- columnae renales (Bertini)

Medulla:

- pyramides renales (10 – 18)
- papillae renales
- foramina papillaria in area cribrosa
- medullary rays



Ren – corpusculum renis, (HE), objektiv 40×



urinary pole

distal tubule

parietal layer of Bowman's capsule

proximal tubules

urinary space

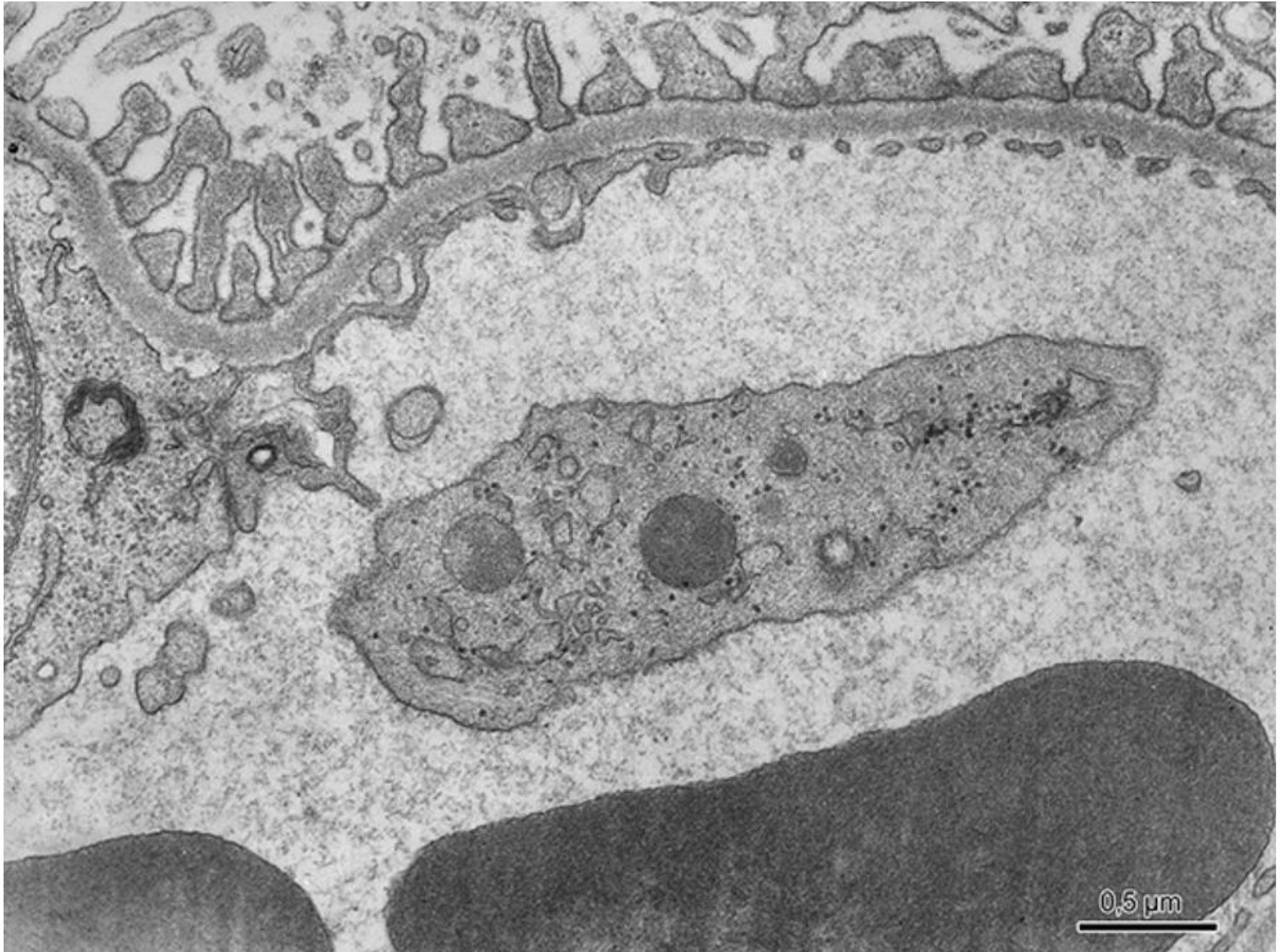
glomerulus

macula densa

vascular pole

20 μm

Fenestrated capillary of glomerulus - filtration barrier

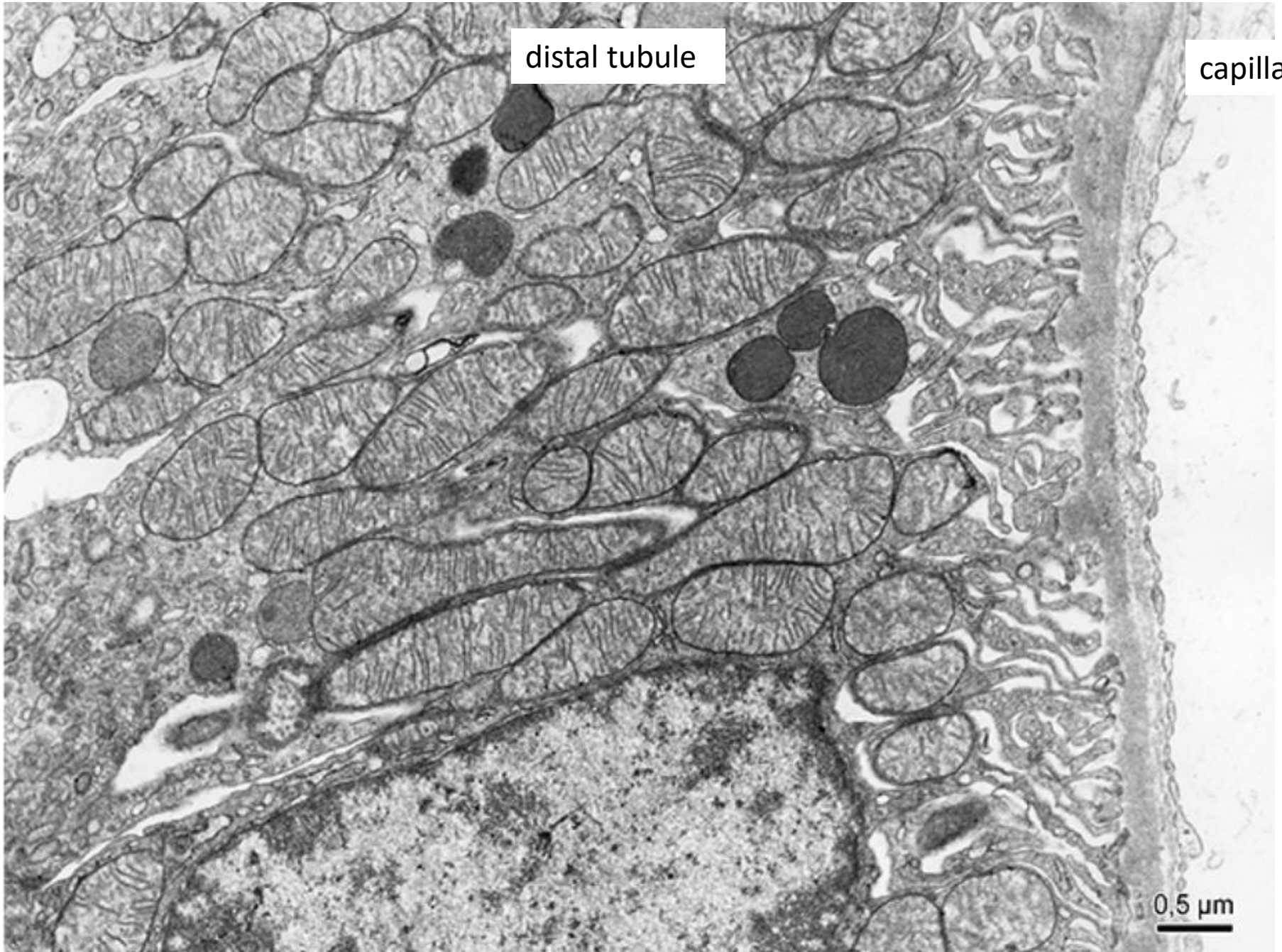


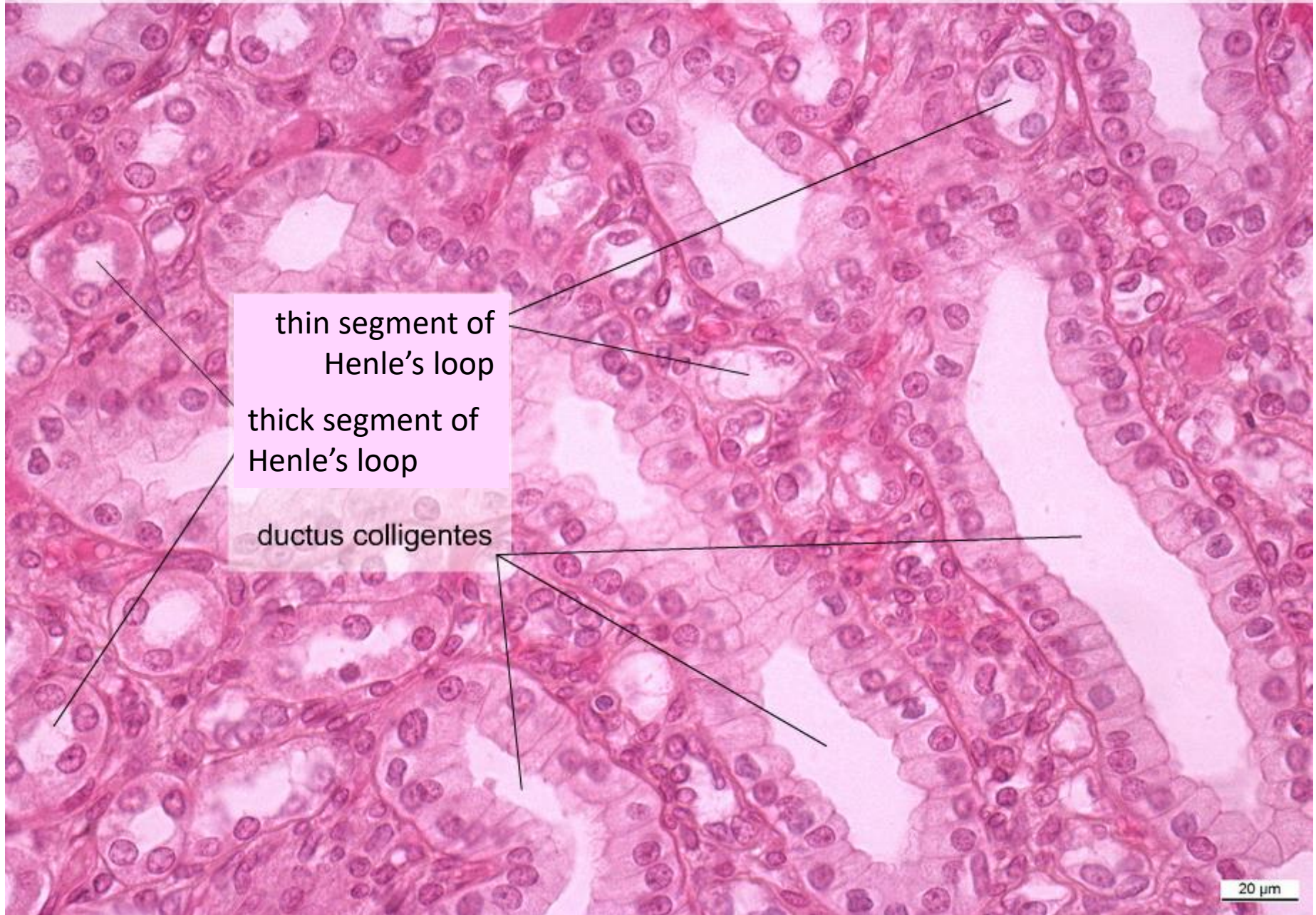
Basal labyrinth

distal tubule

capillary

0,5 μm





thin segment of
Henle's loop

thick segment of
Henle's loop

ductus colligentes

Calyx renalis, (HE), objektiv 2,5x

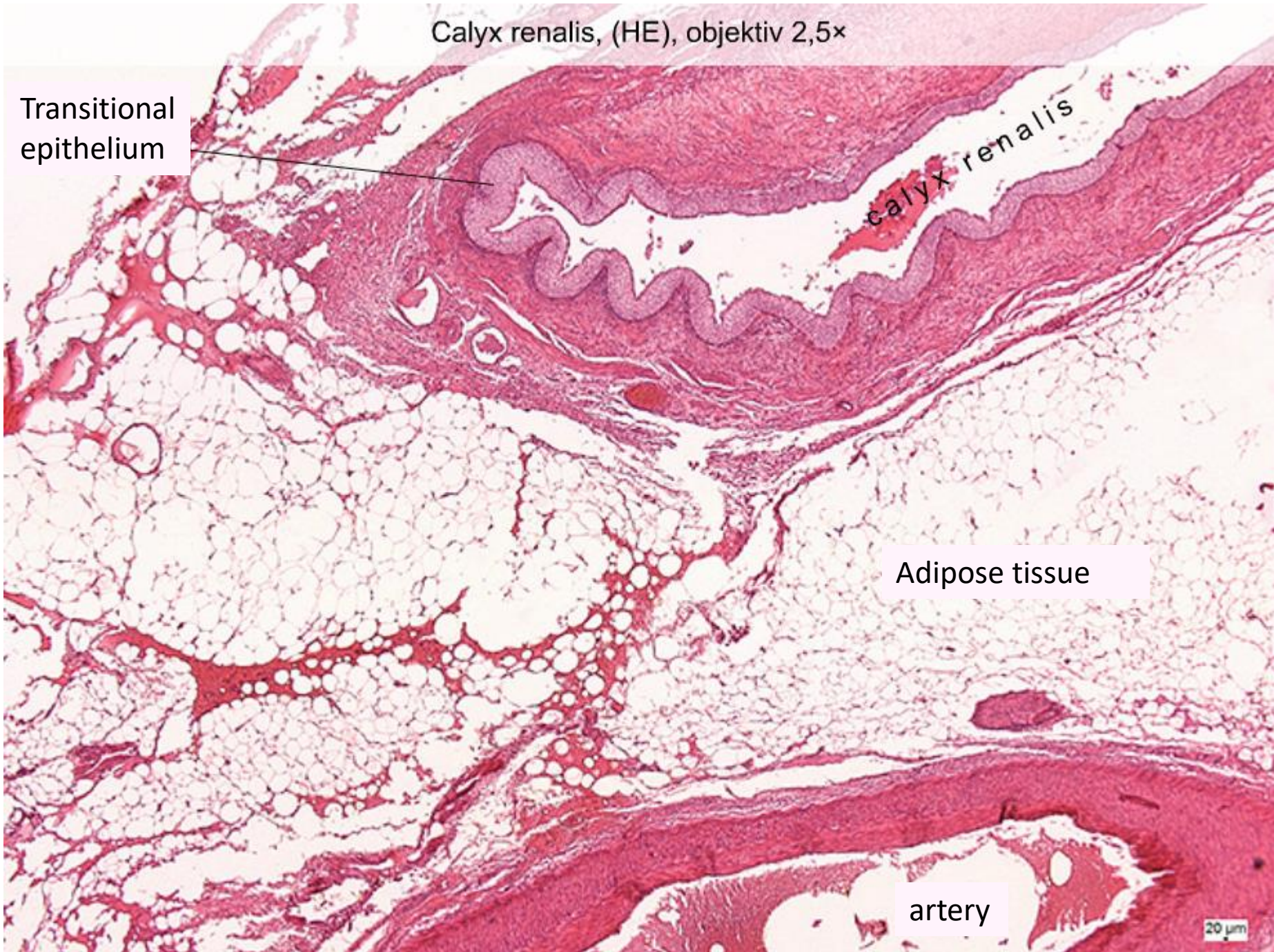
Transitional
epithelium

calyx renalis

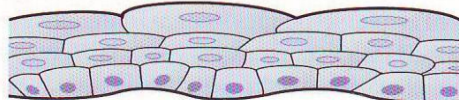
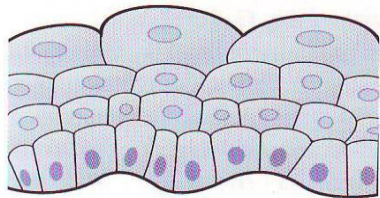
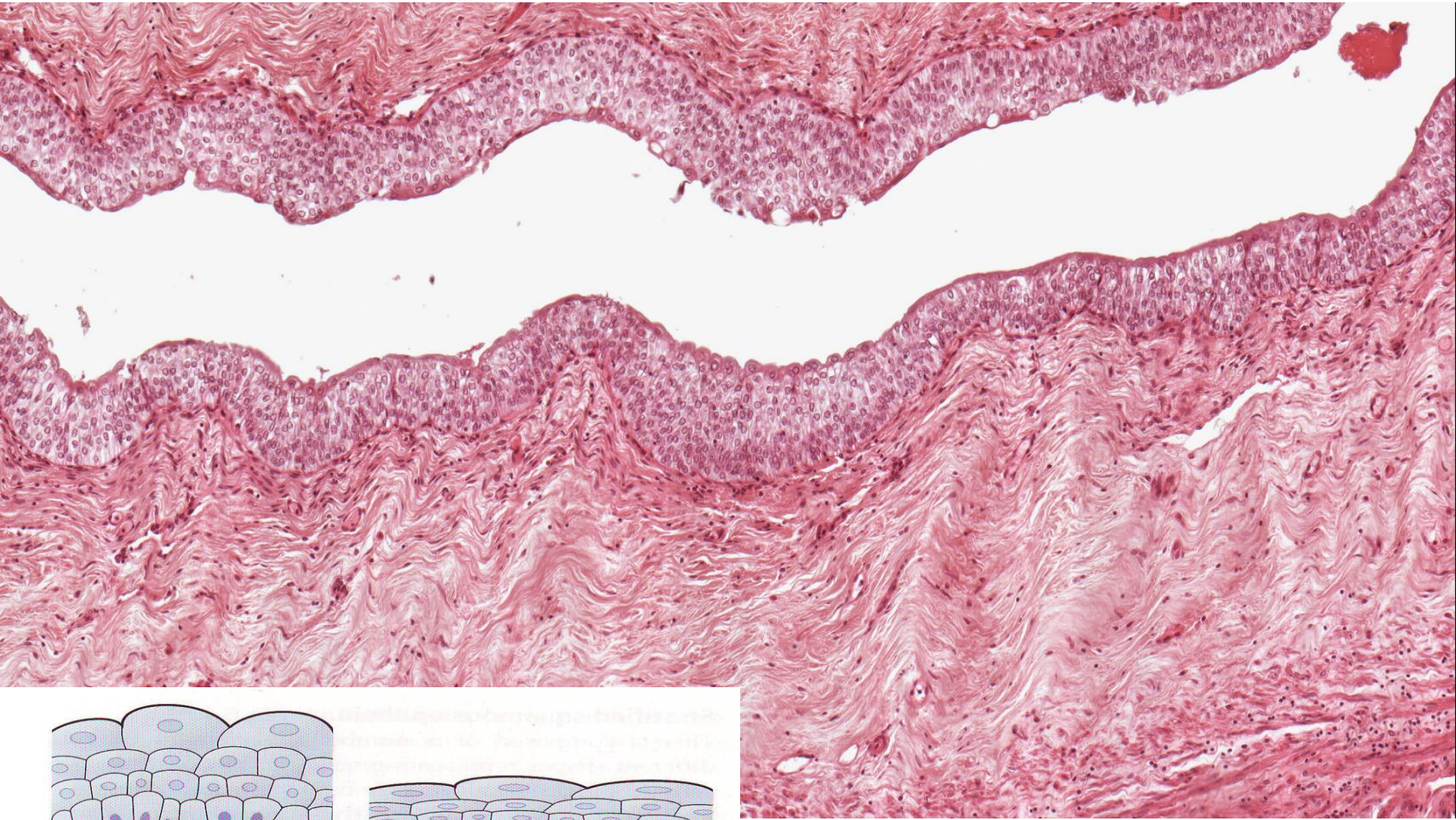
Adipose tissue

artery

20 μm



Calyx renalis (HE)



A Relaxed

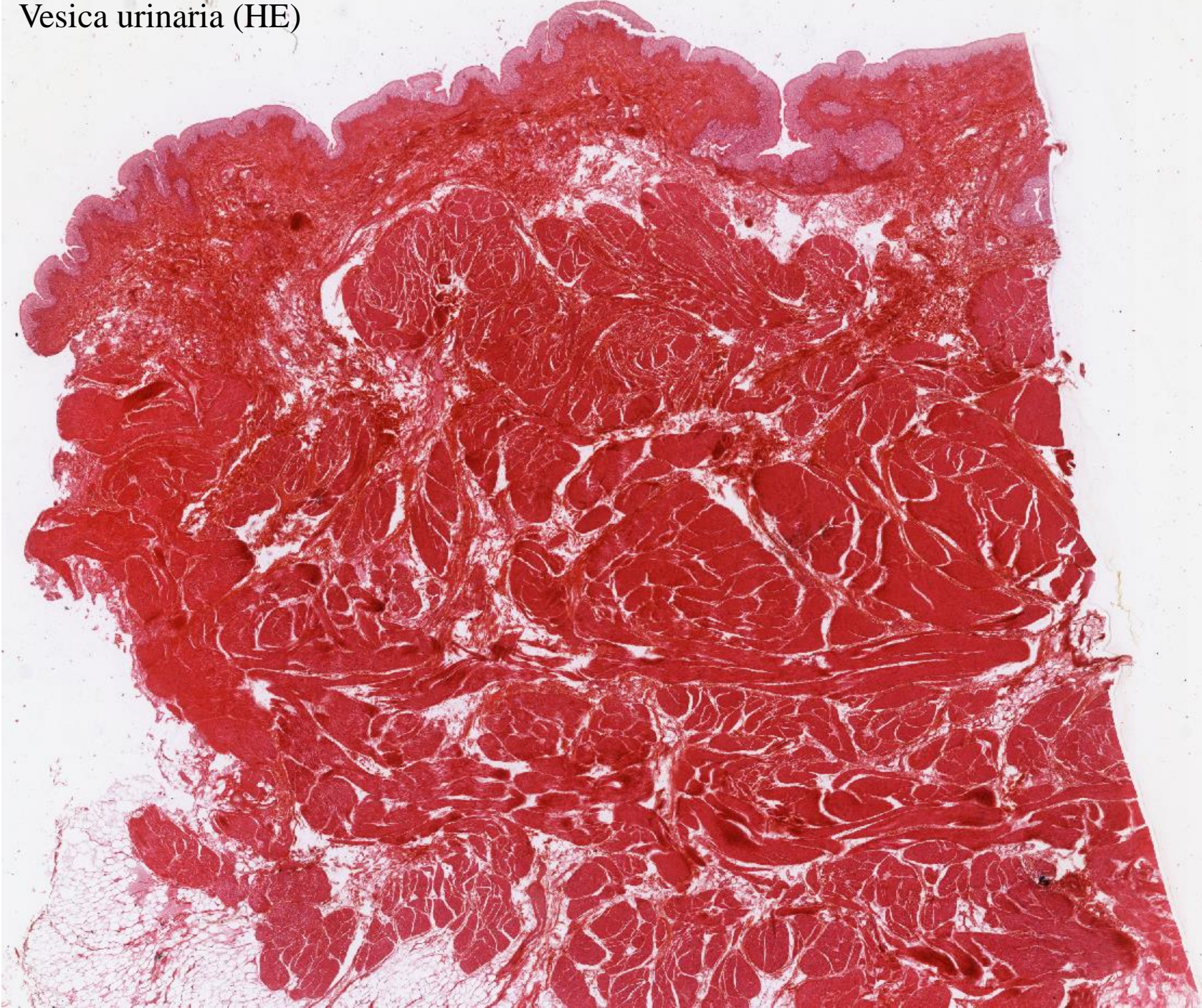
B Stretched

Transitional epithelium: A. Relaxed. B. Stretched.

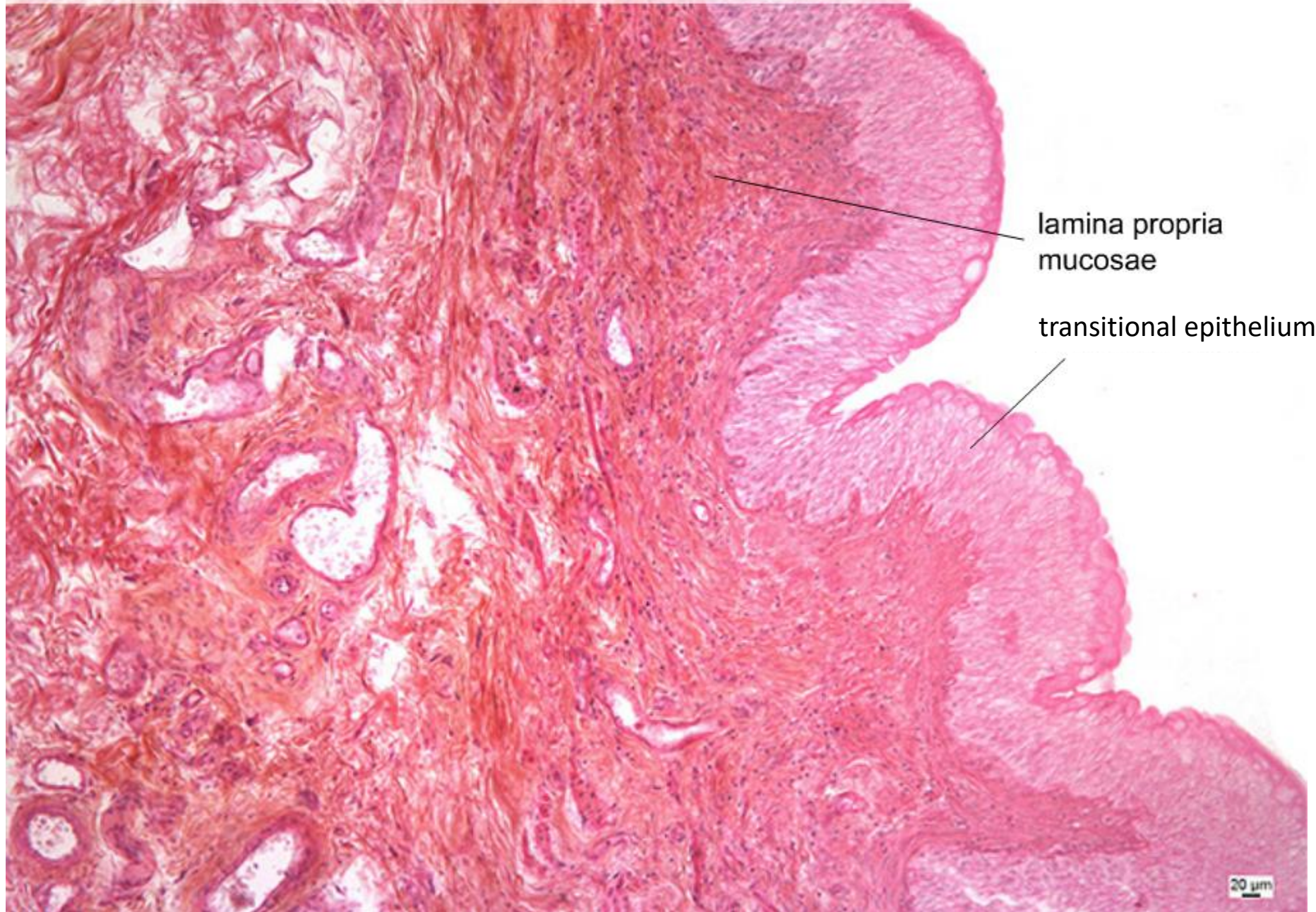
Ureter (HES)



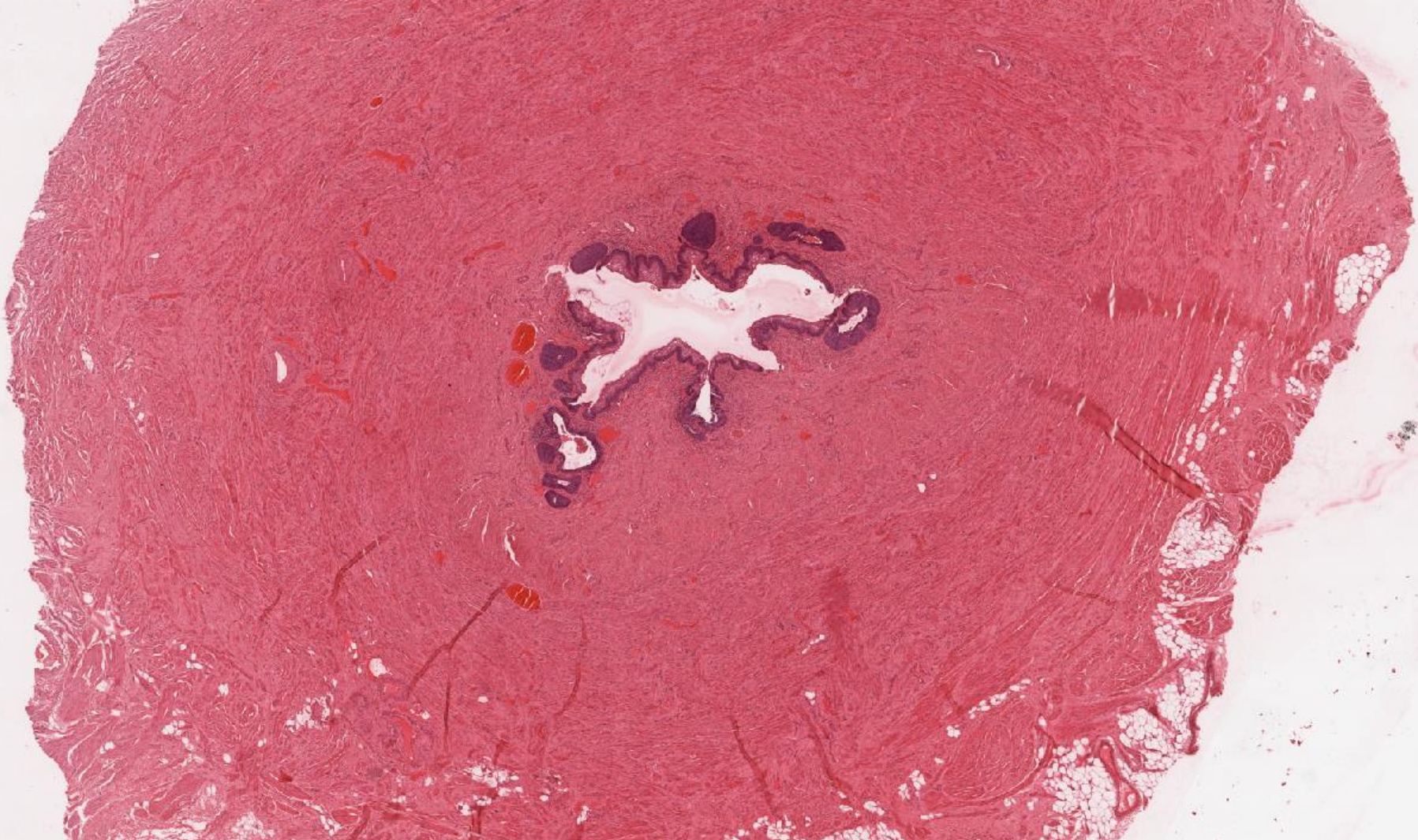
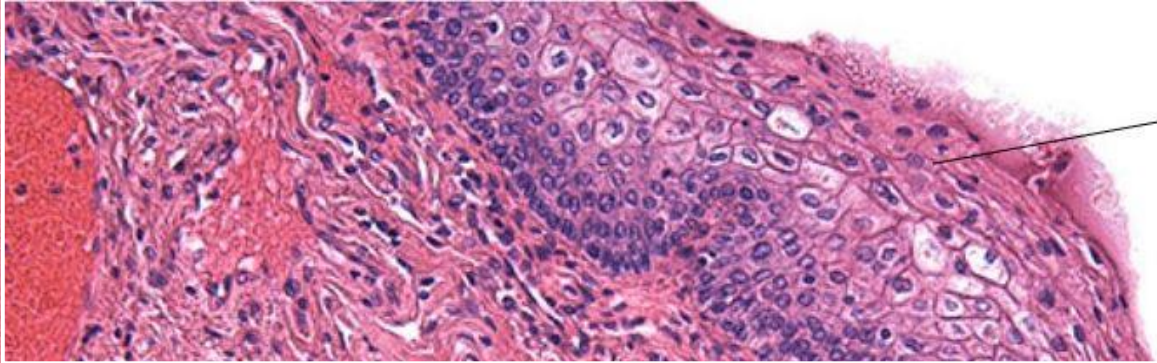
Vesica urinaria (HE)



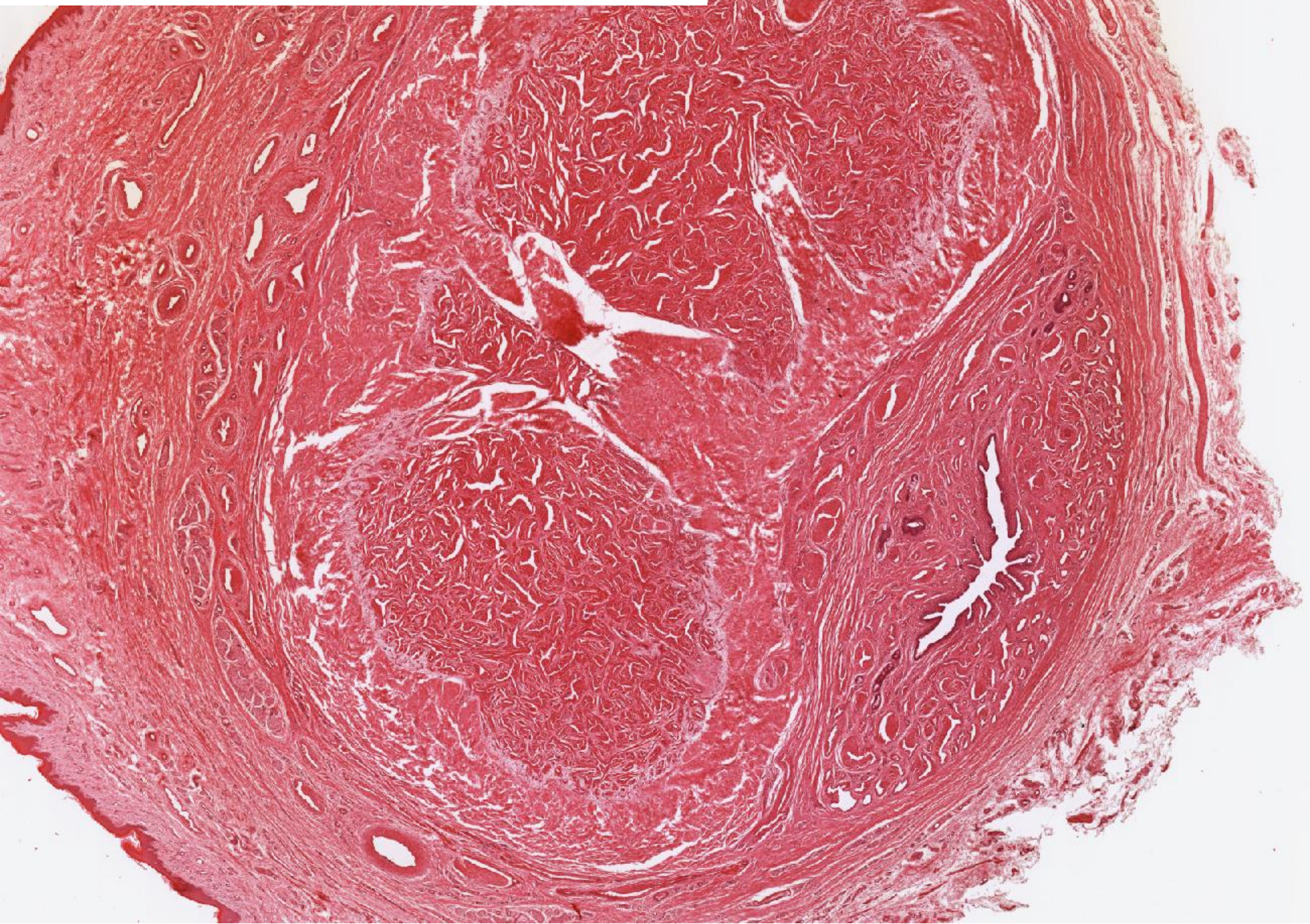
Vesica urinaria – tunica mucosa, (HE), objektiv 20×



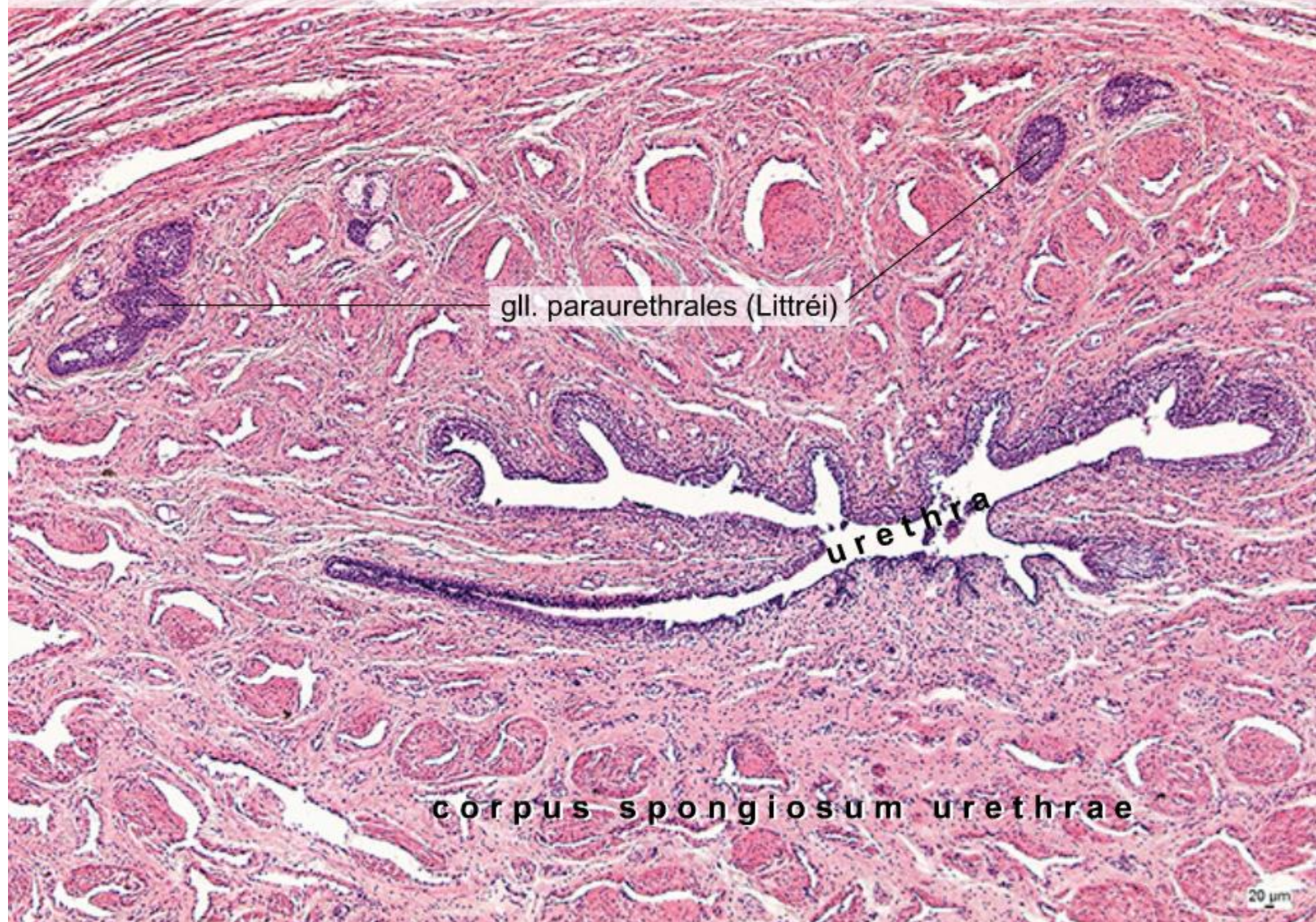
Urethra feminina (HE)



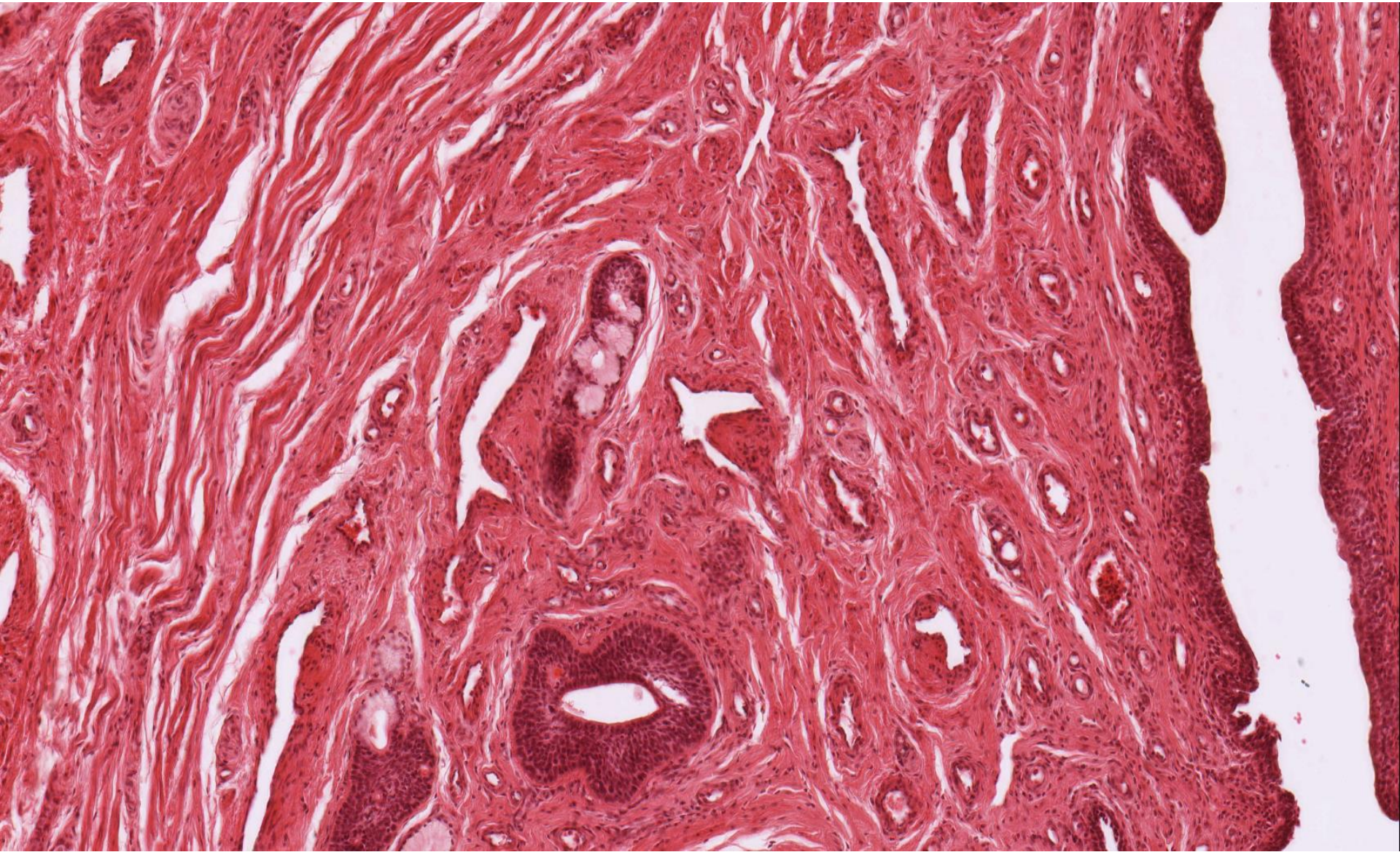
Penis – pars spongiosa urethrae masculinae (HE)



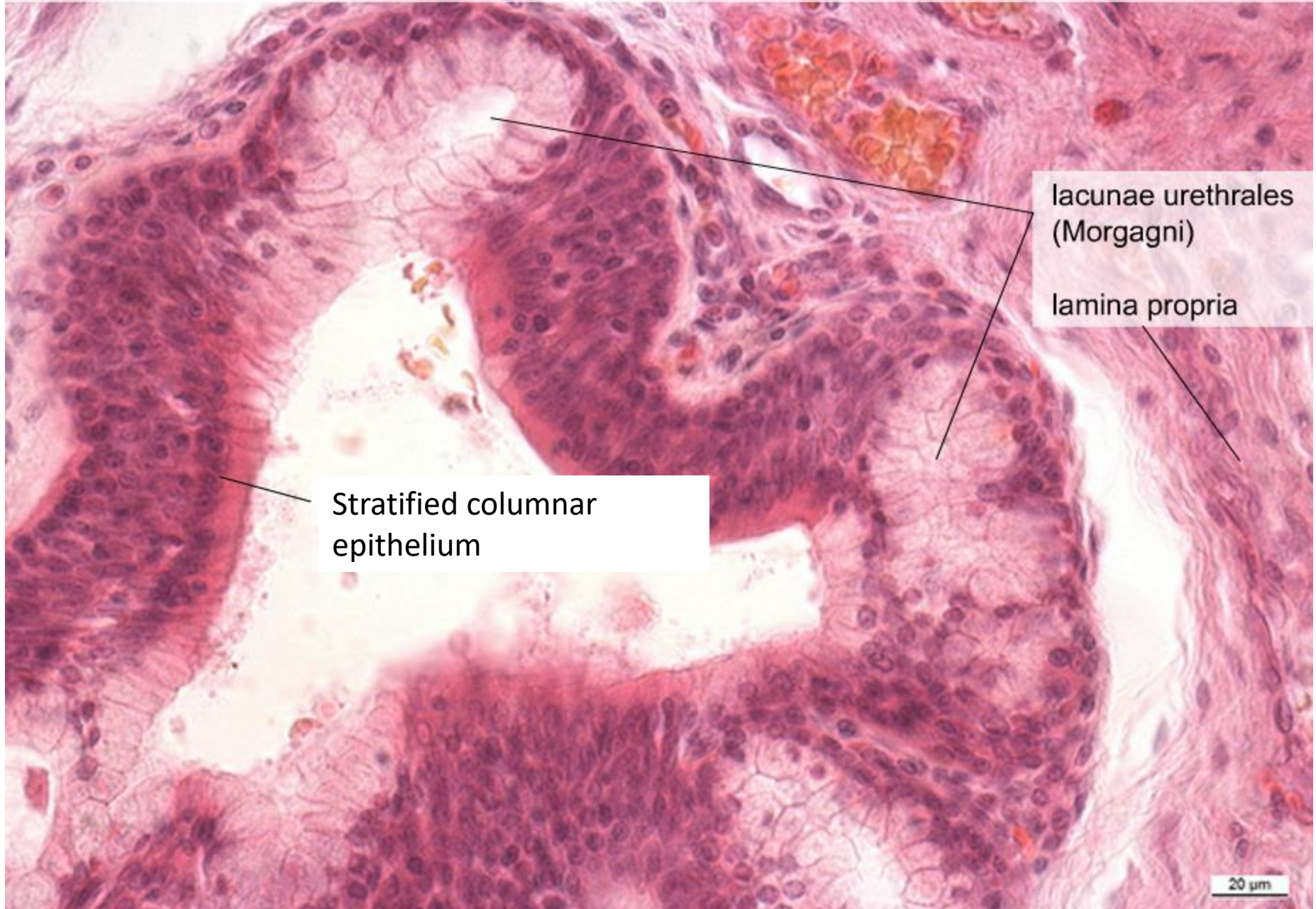
Urethra masculina – přehled, glandulae paraurethrales, (HE), objektiv 2,5×



Penis – pars spongiosa urethrae masculinae (HE)



Urethra masculina – lacunae urethrales, (HE), objektiv 40×



lacunae urethrales
(Morgagni)

lamina propria

Stratified columnar
epithelium

URINARY SYSTEM

Slides:

- 30. Ren (HE)
- 31. Ren (Weigert – van Gieson)
- 32. Calyx renalis (HE)
- 33. Ureter (HE)
- 34. Vesica urinaria (HE)
- 35. Urethra feminina (HE)
- 41. Penis – pars spongiosa urethrae masculinae (HE)

Atlas EM: brush border (26)

basal labyrinth (27)

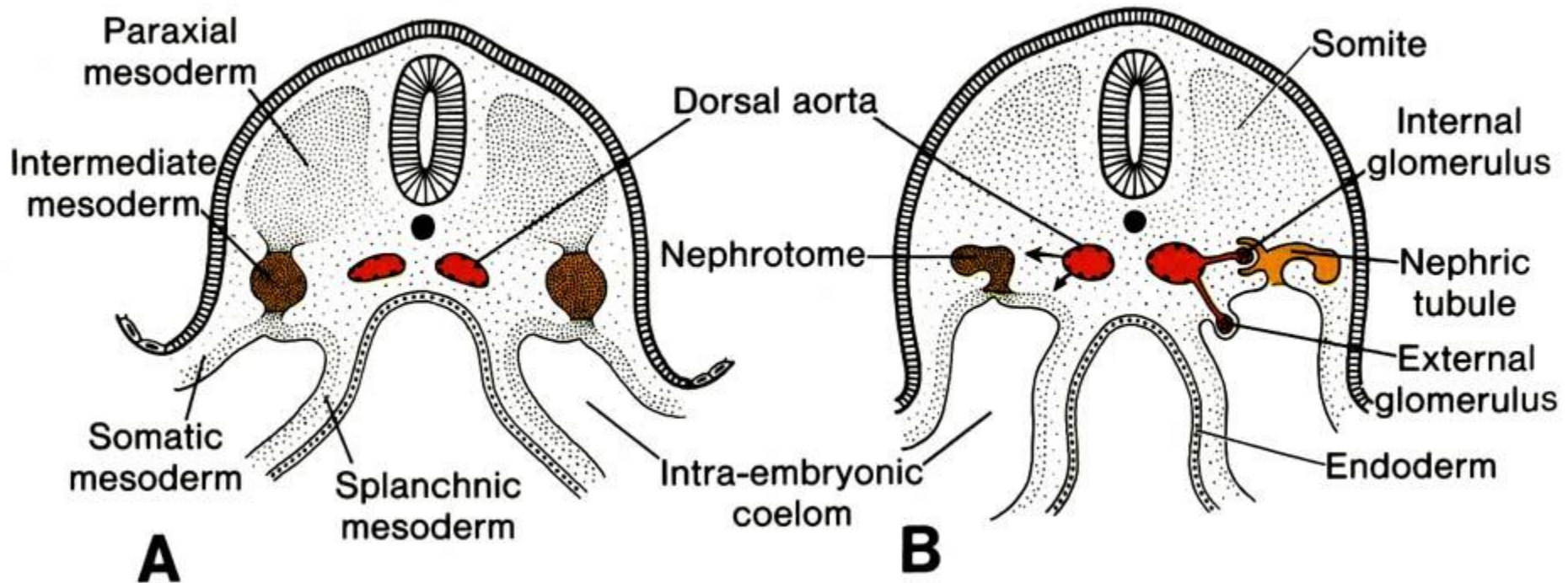
fenestrated capillary of glomerulus (57)

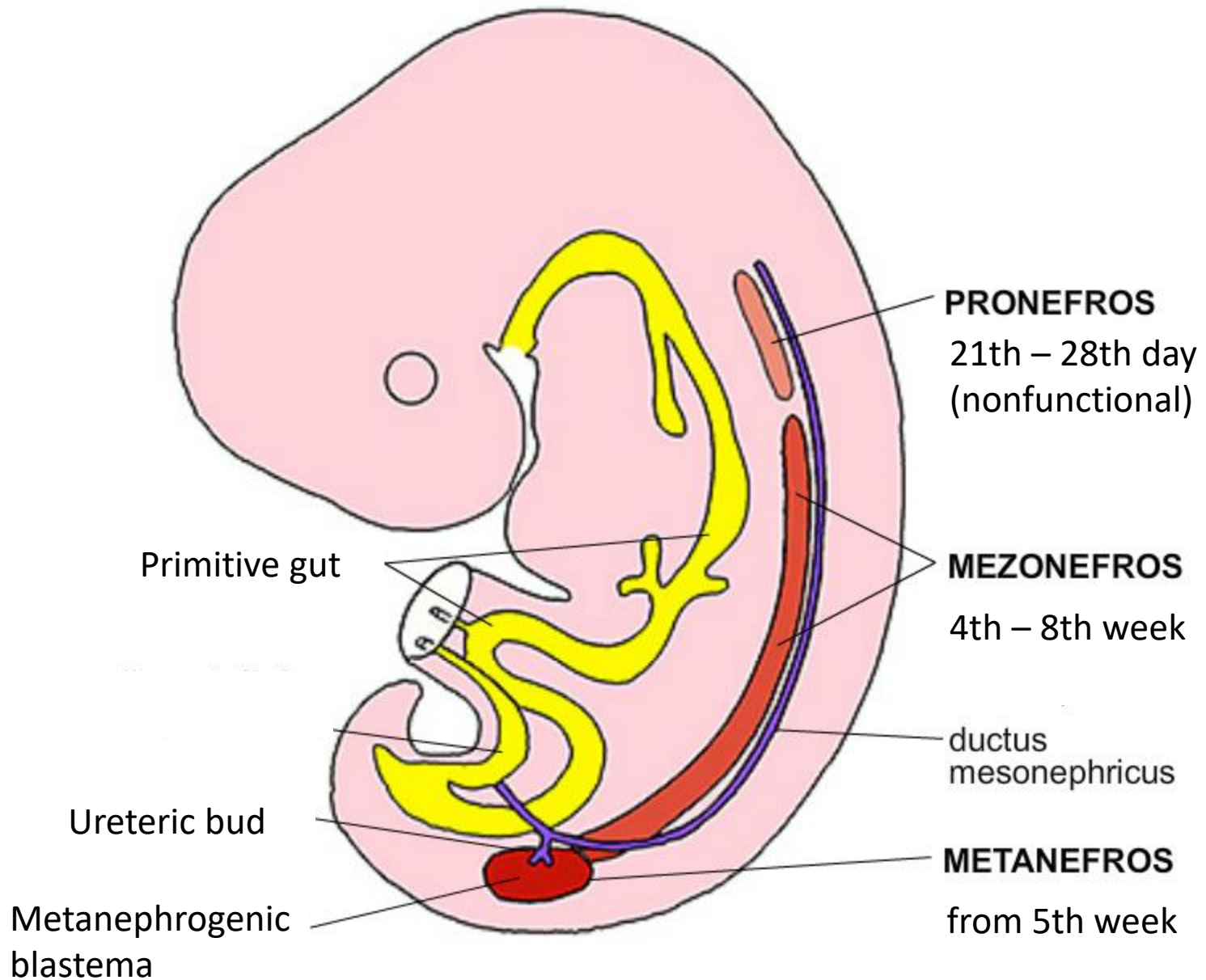
corpusculum renis with filtration barrier (69)

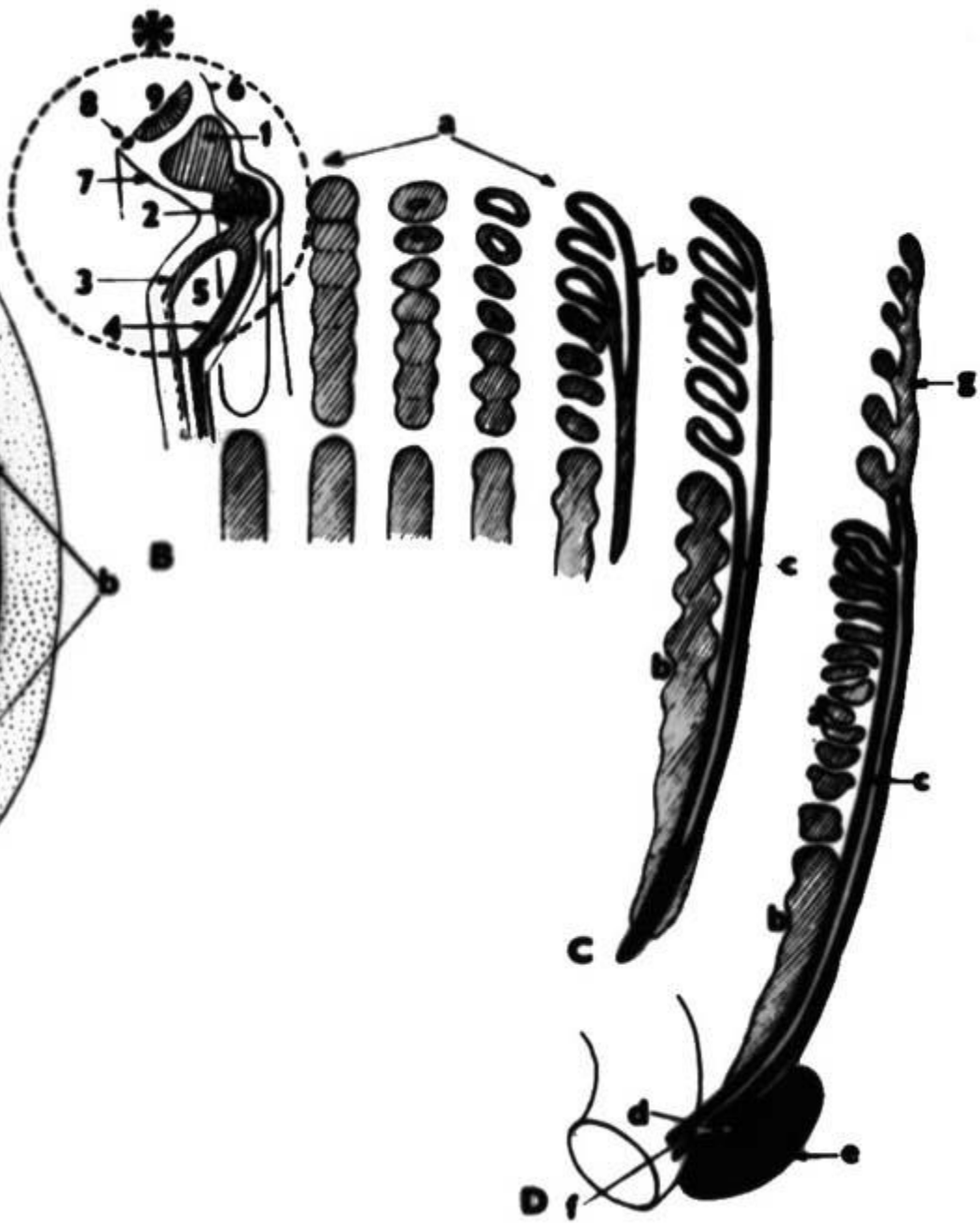
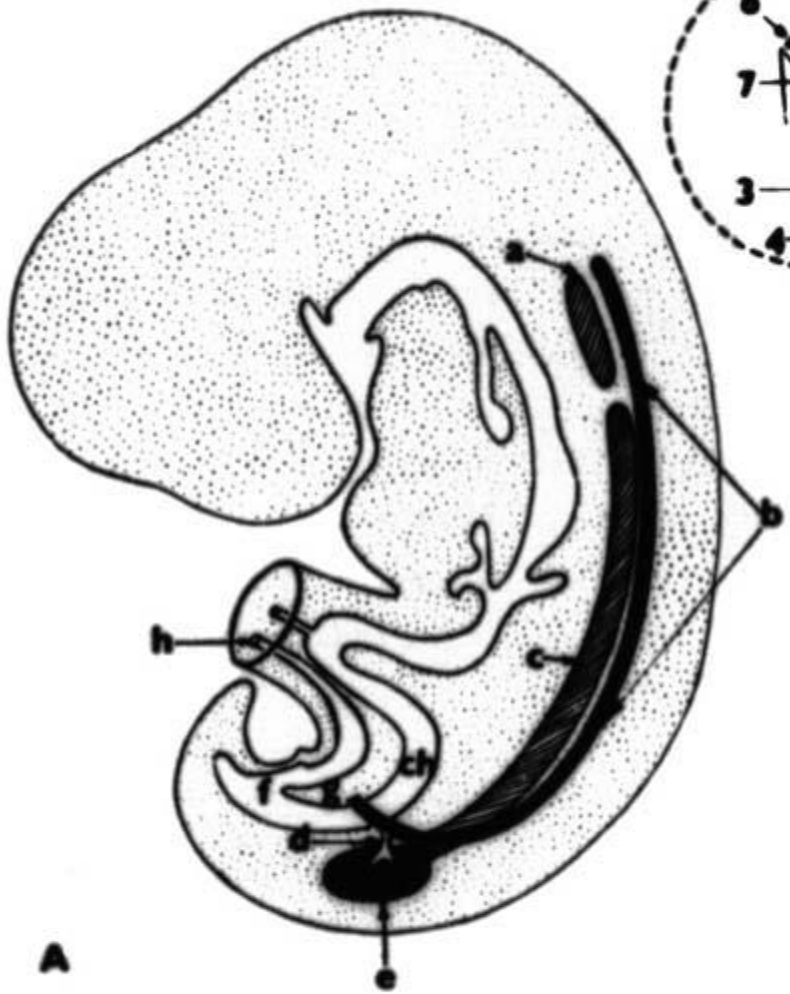
tubulus proximalis et distalis (70)

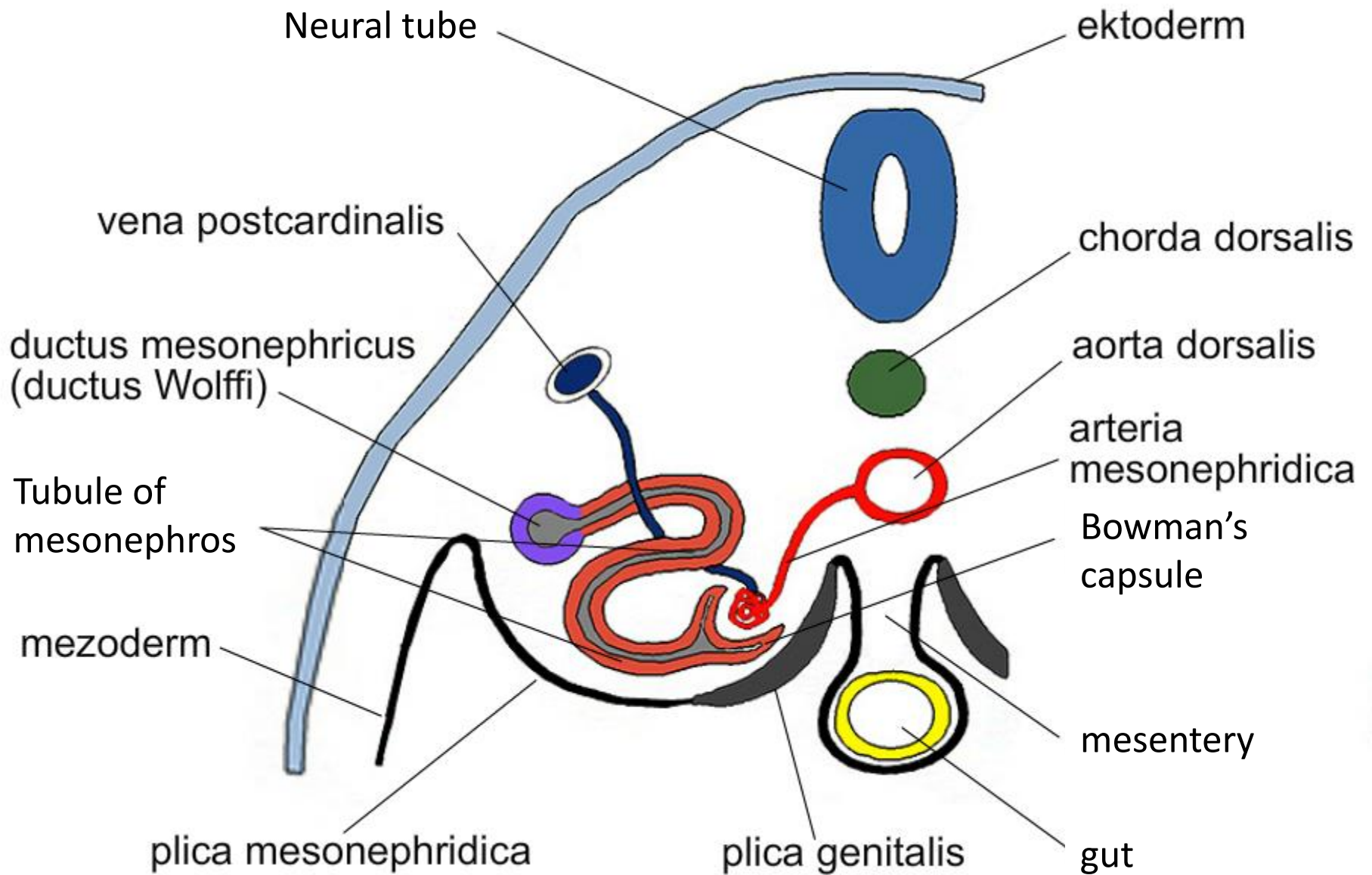
development of kidney (94)

Development of urinary system

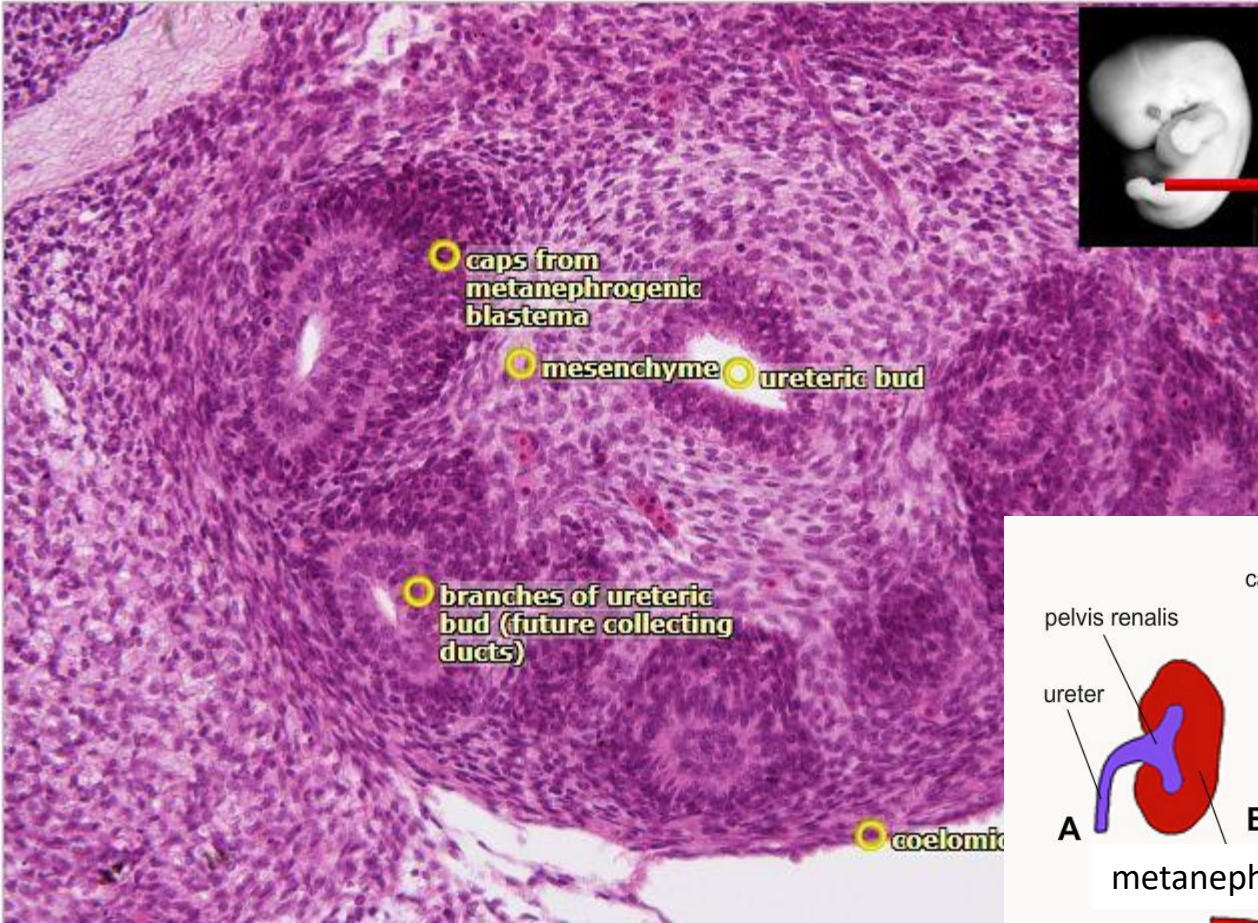




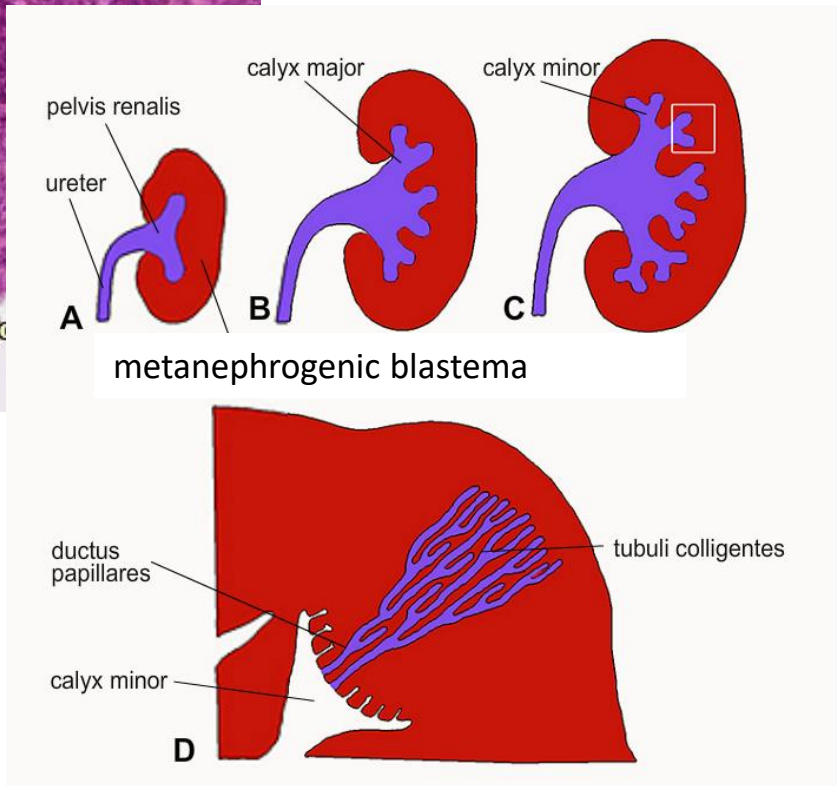




6-2 Human embryo (7th week) – cross-section through the body, HE, magn. 200x



https://is.muni.cz/do/rect/el/estud/lf/ps15/atlas/web/atlas_en.htm?chapter=7&prep=2



Development of nephrons

Metanephrogenic
blastema

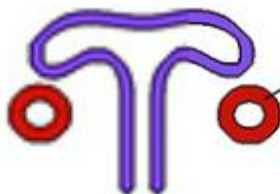
Collecting
tubule

A



Renal
corpuscle

B



Tubule of
nephron

C



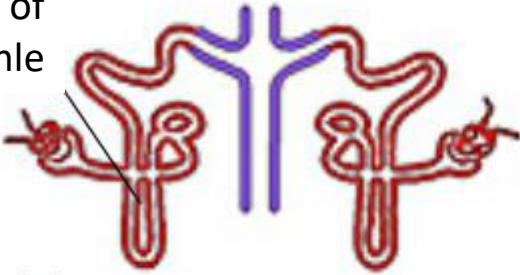
glomerulus

D



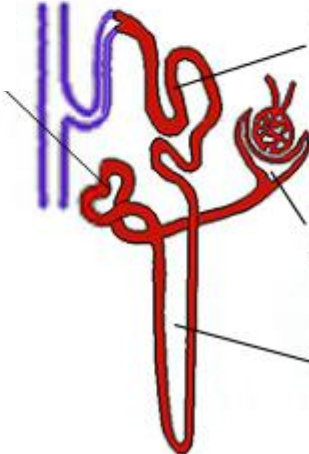
Loop of
Henle

E



Proximal
tubule

F



Distal
tubule

Bowman's
capsule

Loop of
Henle

Septation of cloaca

