



DIGESTIVE SYSTEM 3

- Big salivary glands
 - parotid gland
 - submandibular gl.
 - sublingual gl.

- Liver
- Gallbladder
- Pancreas

Salivary glands - schema

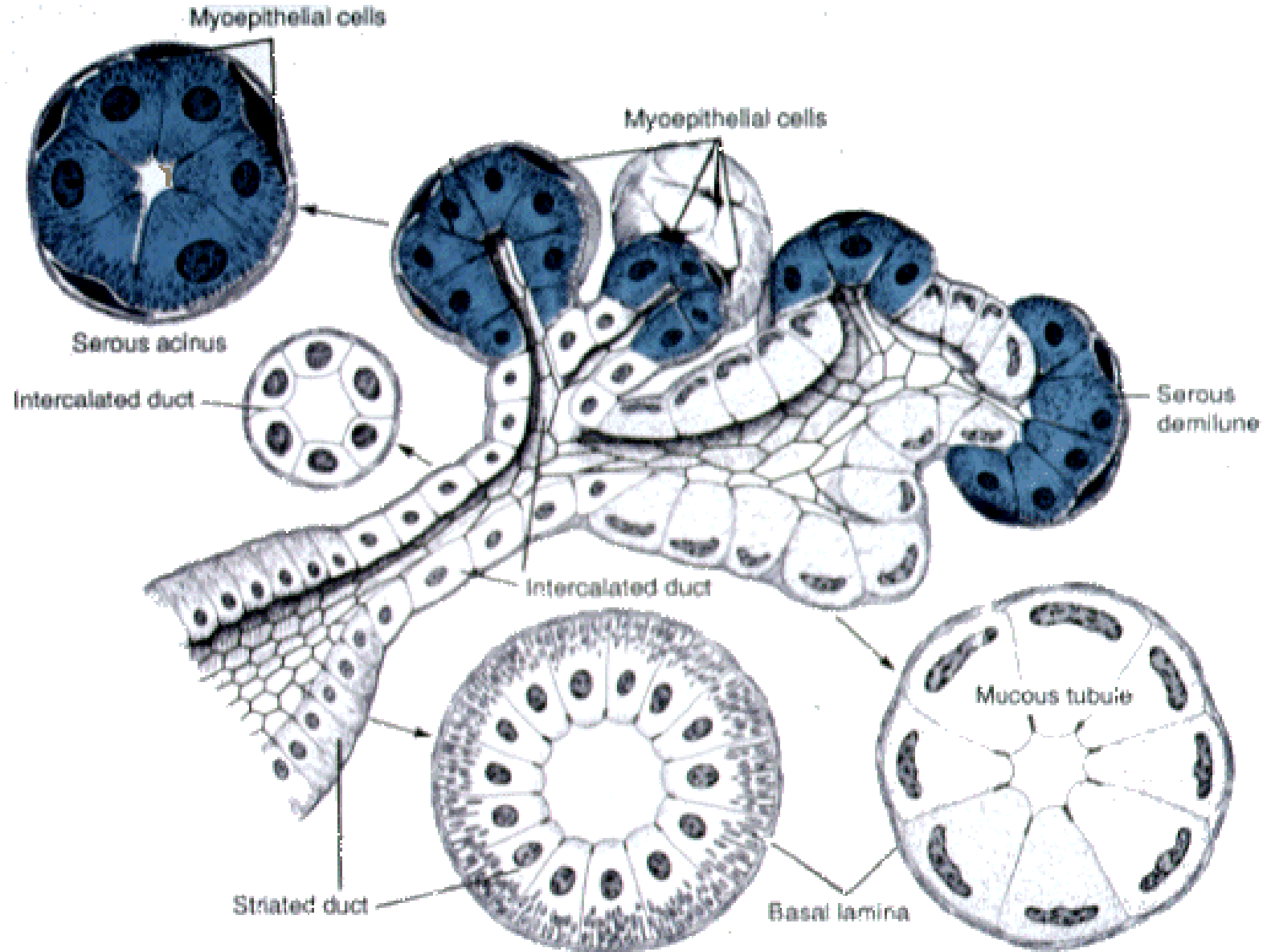
Glandular parenchyma

secretory portion

- serous acini
- mucous tubules
- mixed /serous demilunes of Gianuzzi/
+ myopethelial cells

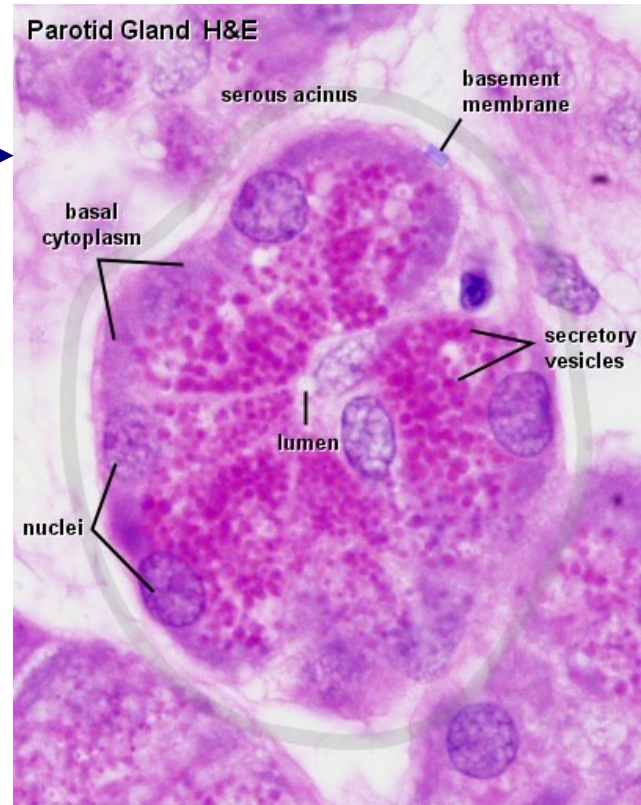
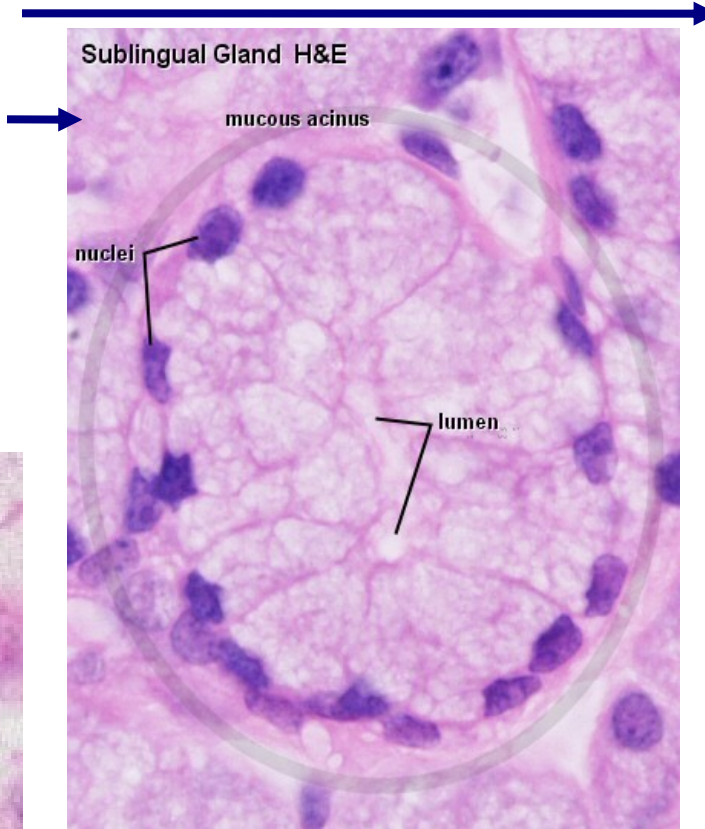
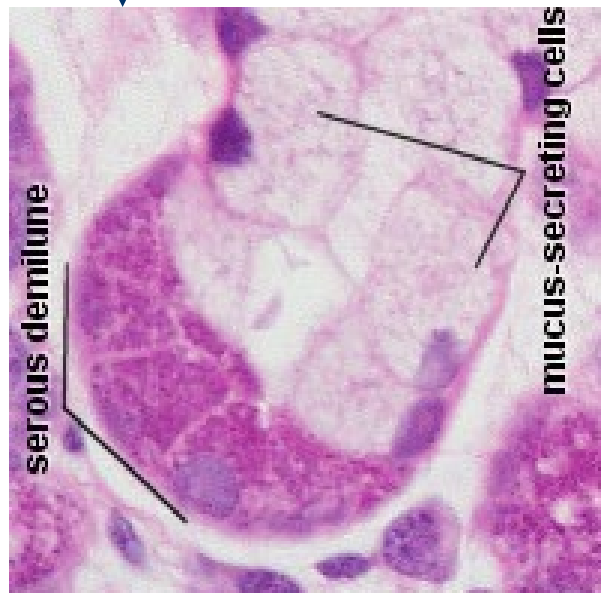
duct system

- intercalated ducts
- intralobular /striated/
ducts
- interlobular and
interlobar ducts
- main excretory duct



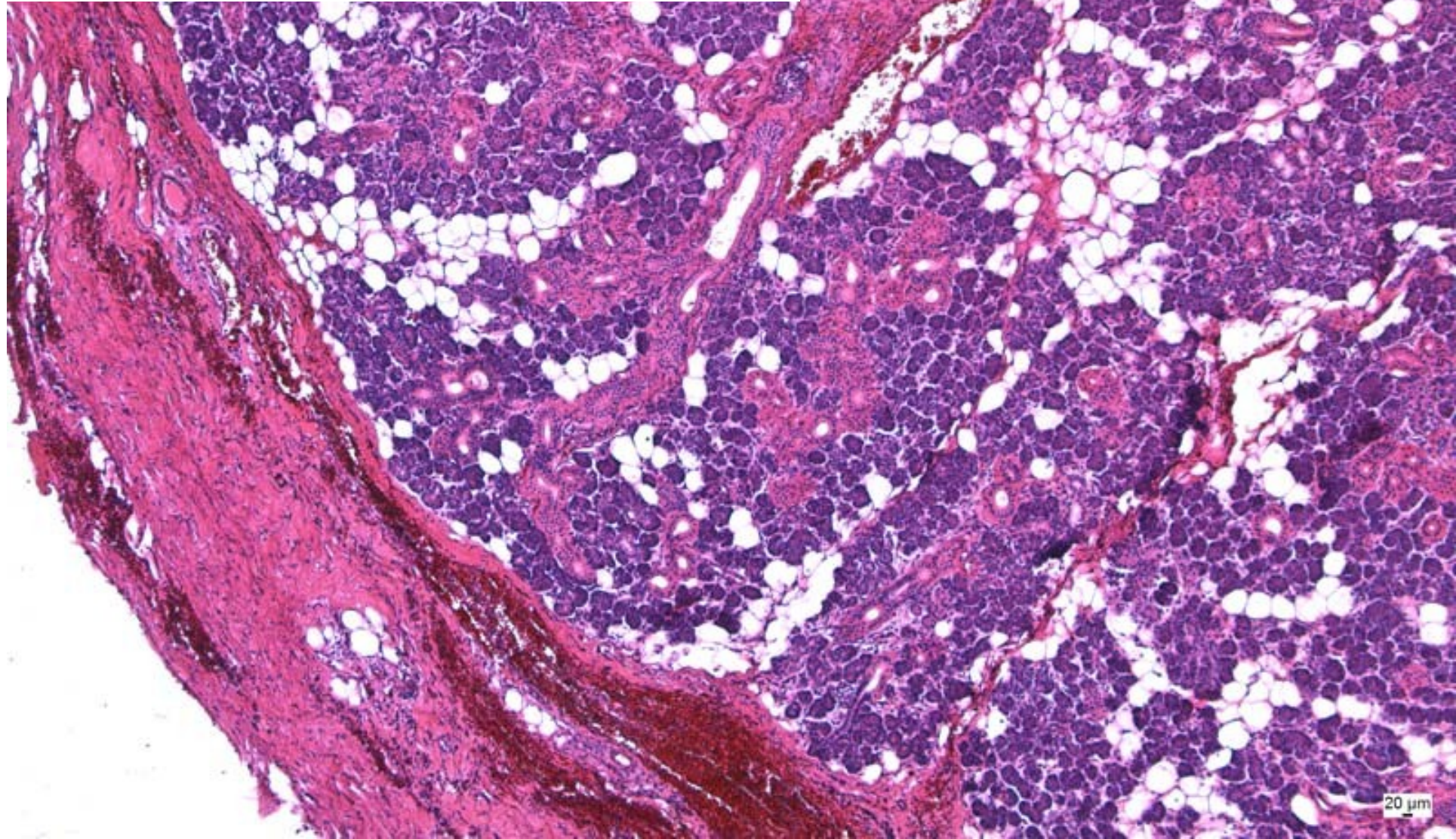
Secretory portion of salivary glands

- serous acini
- mucous tubules
- mixed (serous demilunes of Gianuzzi)

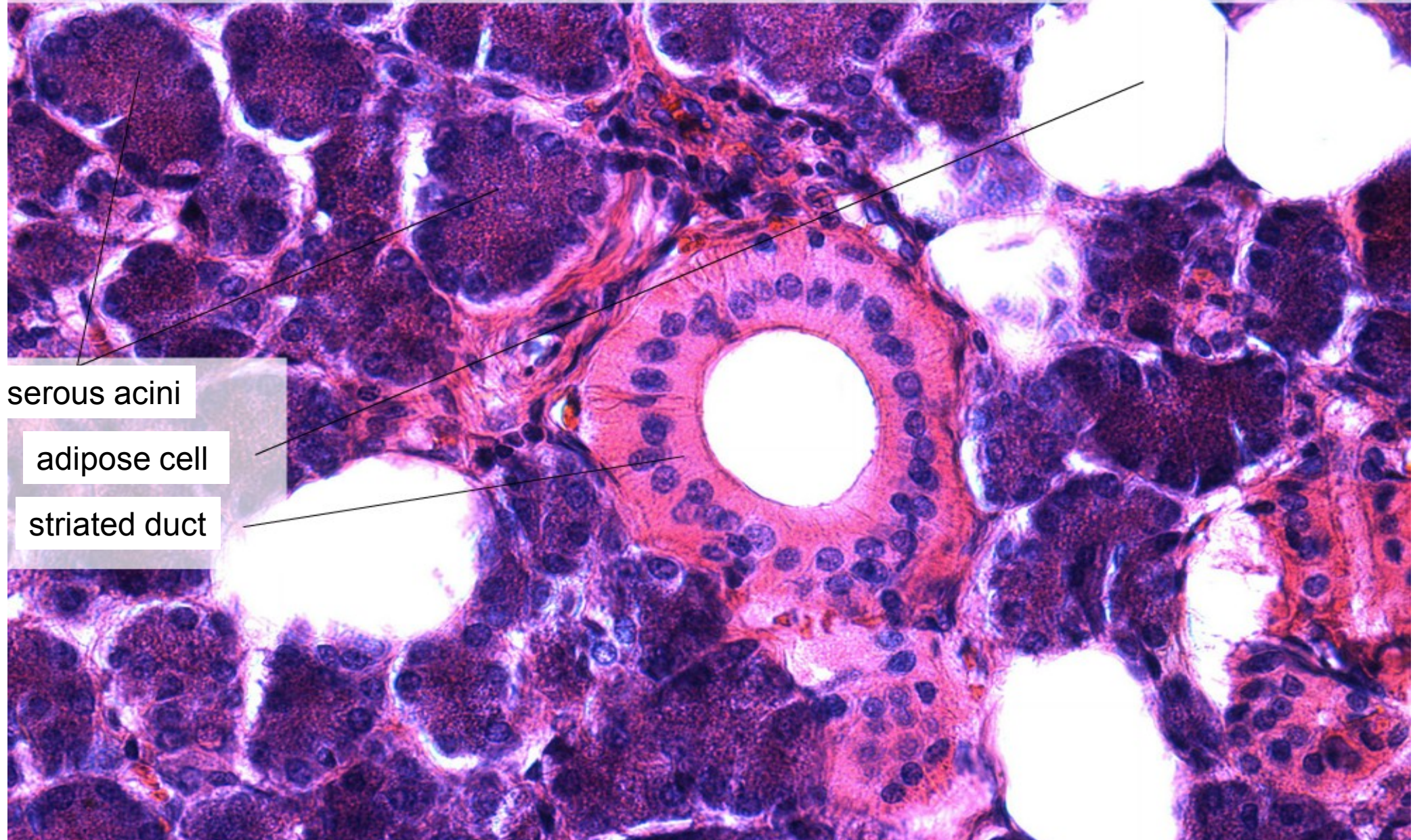


Parotid gland

Branched acinar serous gl.
ducts – intercalated, striated, interlobular,
excretory ducts
Adipose tissue



Gl. parotis – detail, (HE), objektiv 40×



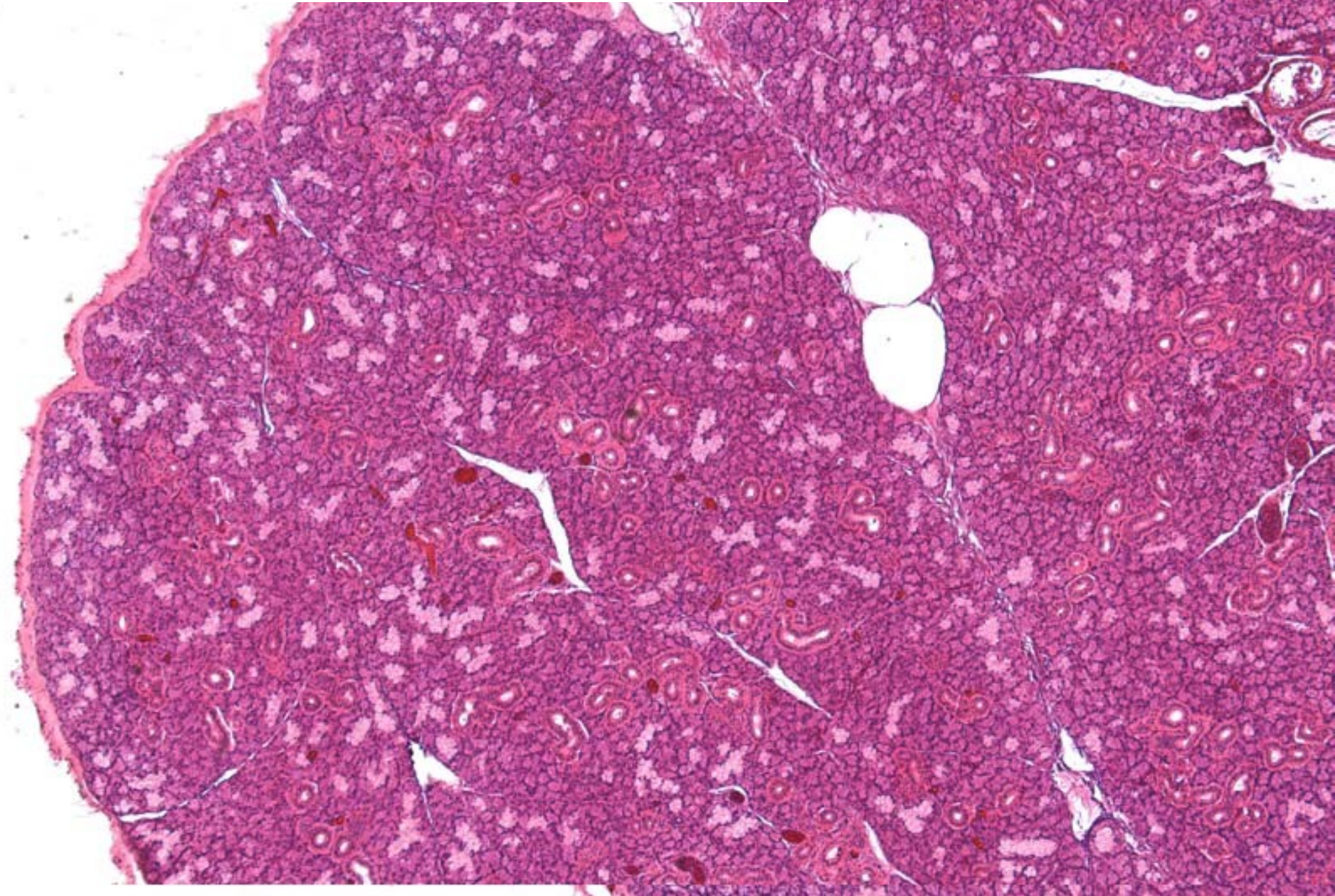
serous acini

adipose cell

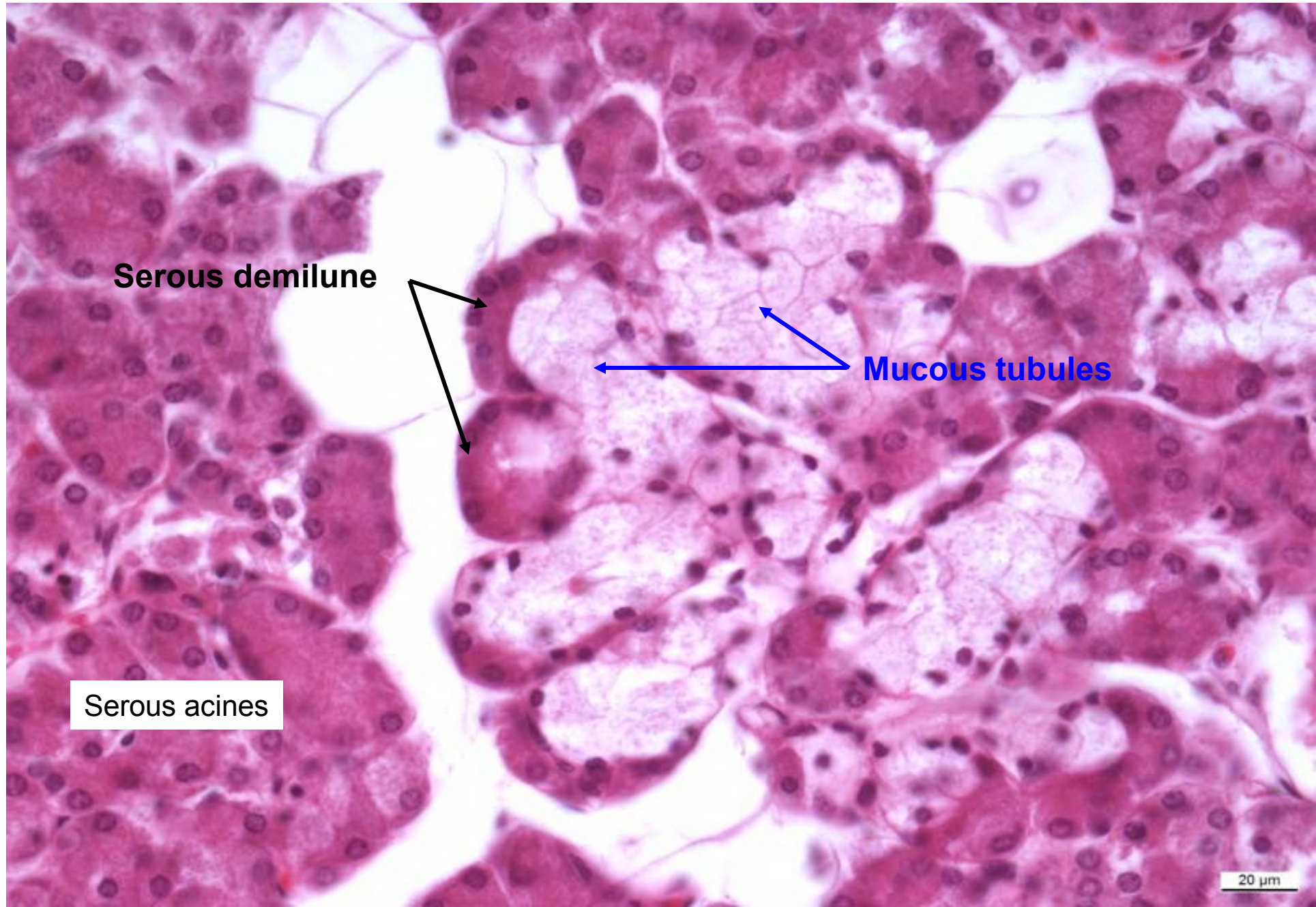
striated duct

Submandibular gland

Branched tubuloacinar mixed gl.



Submandibular gland



Serous demilune

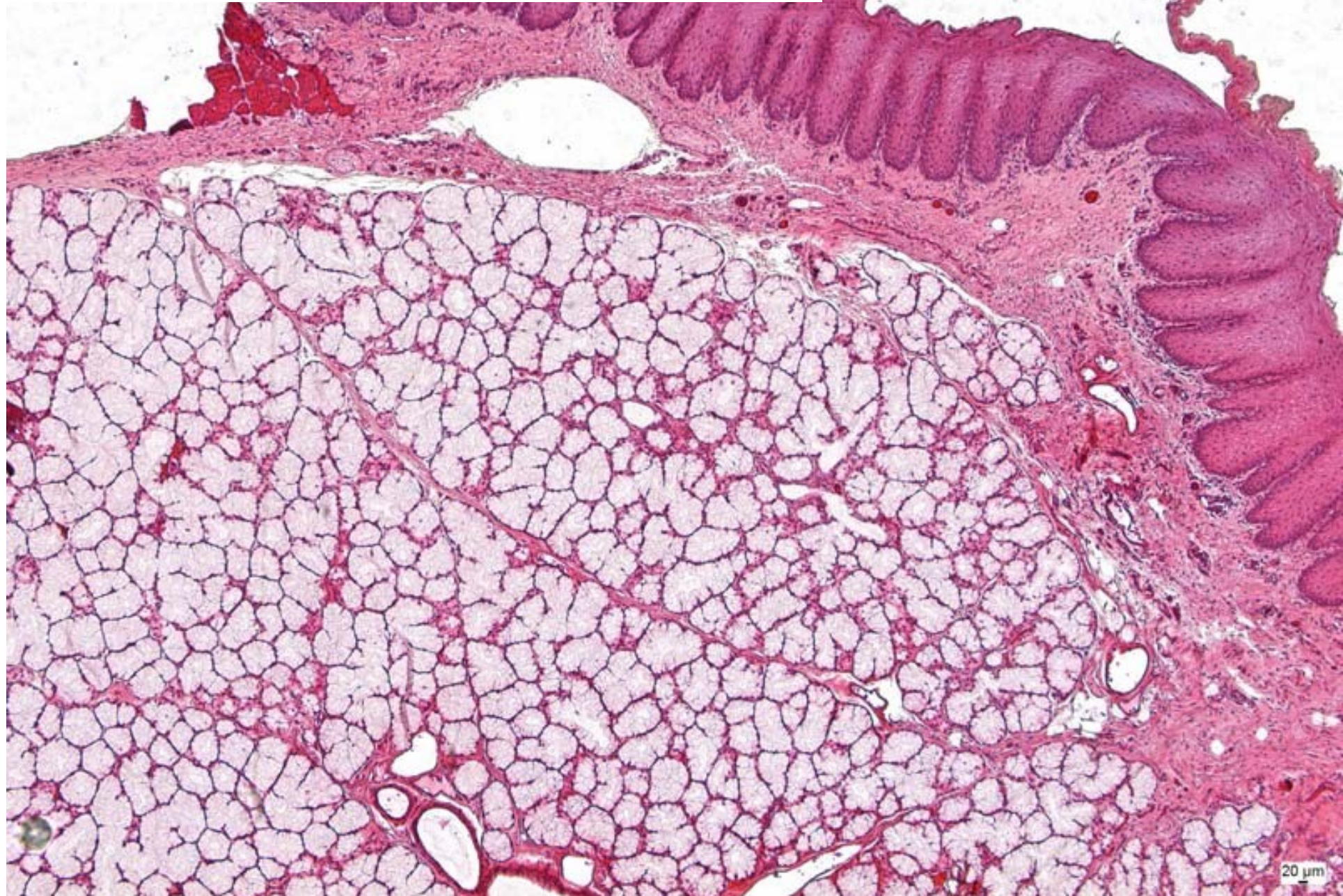
Mucous tubules

Serous acines

20 μ m

Sublingual gland

Branched tubuloacinar mixed gl.

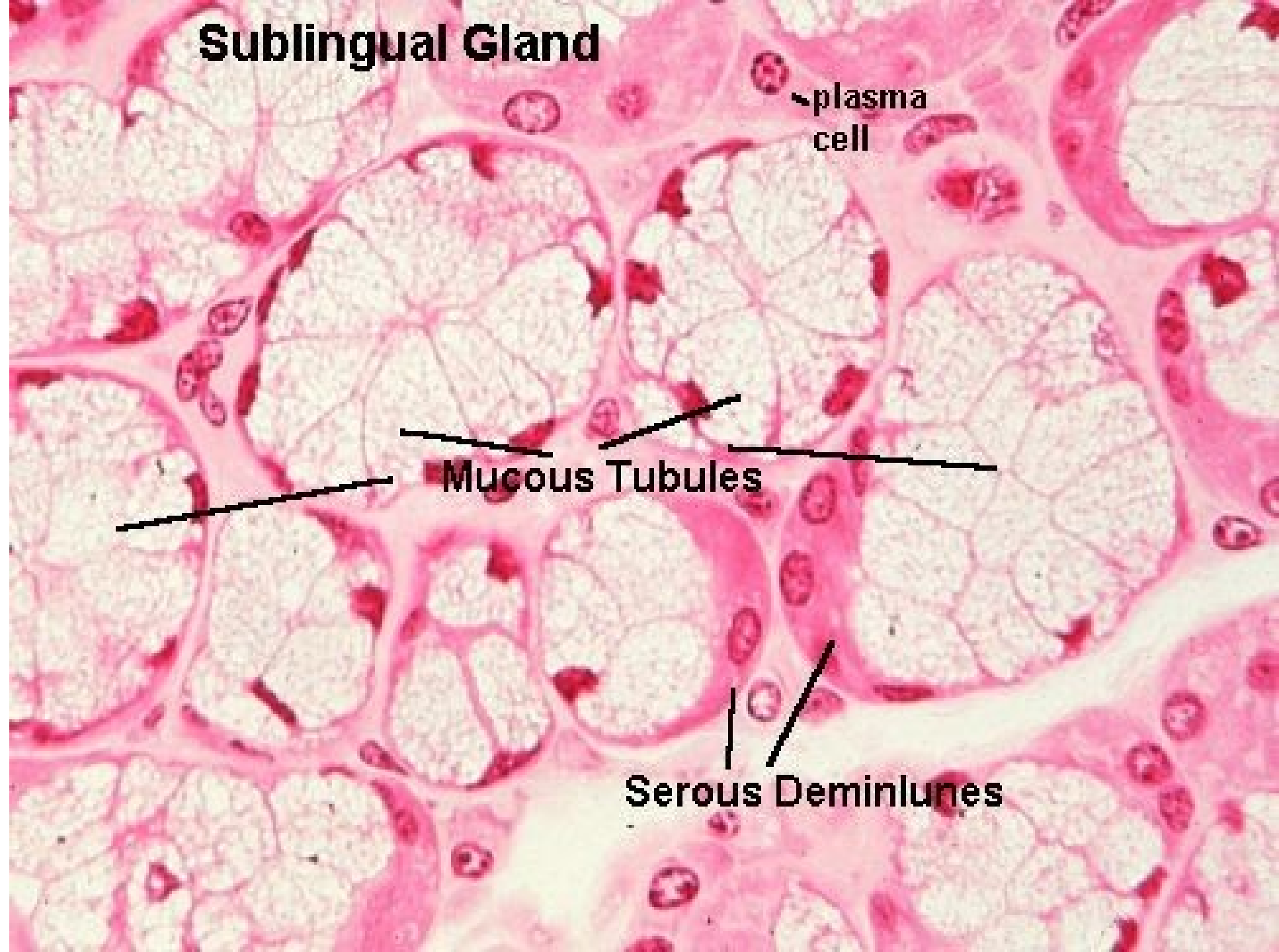


Sublingual Gland

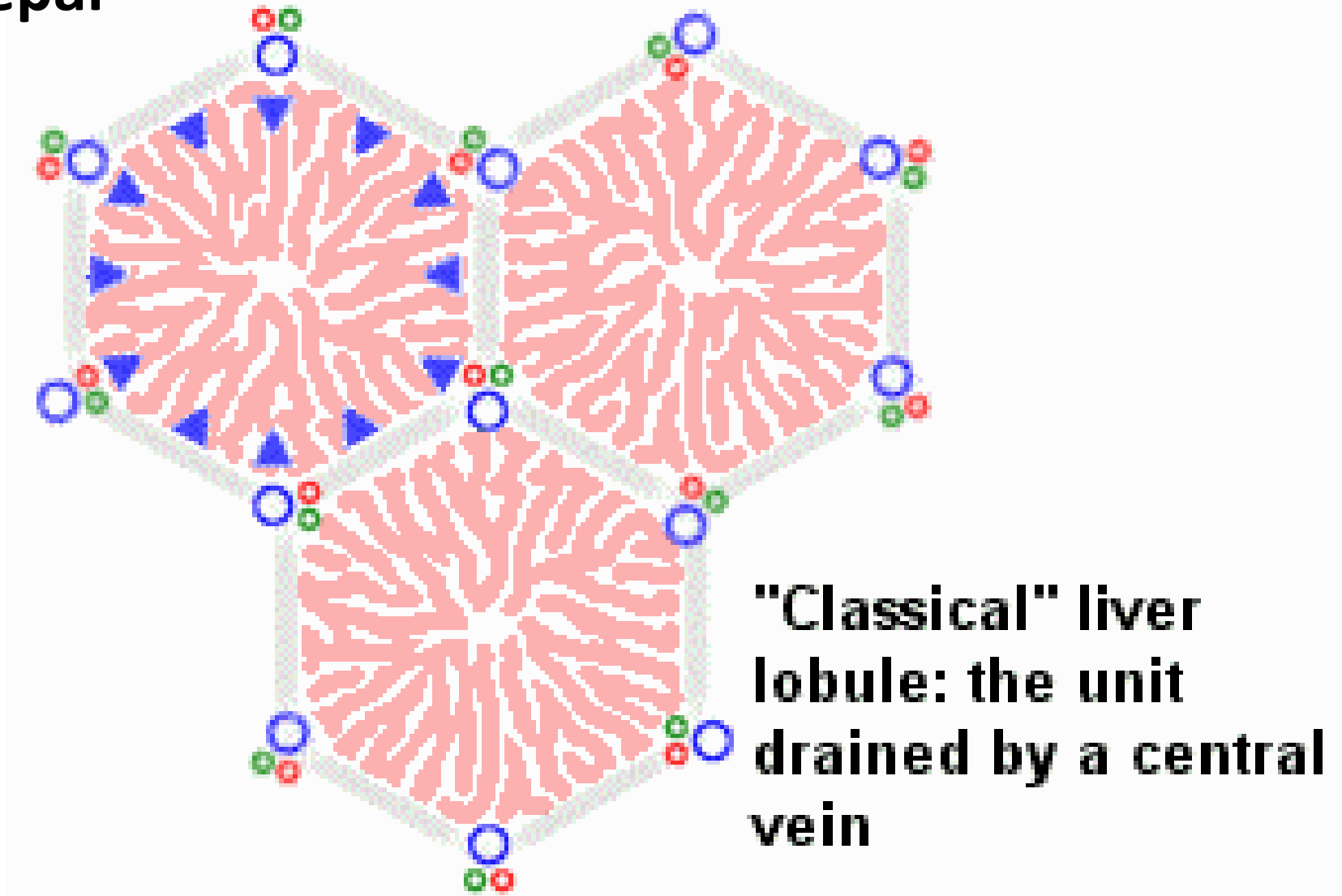
plasma cell

Mucous Tubules

Serous Deminlunes

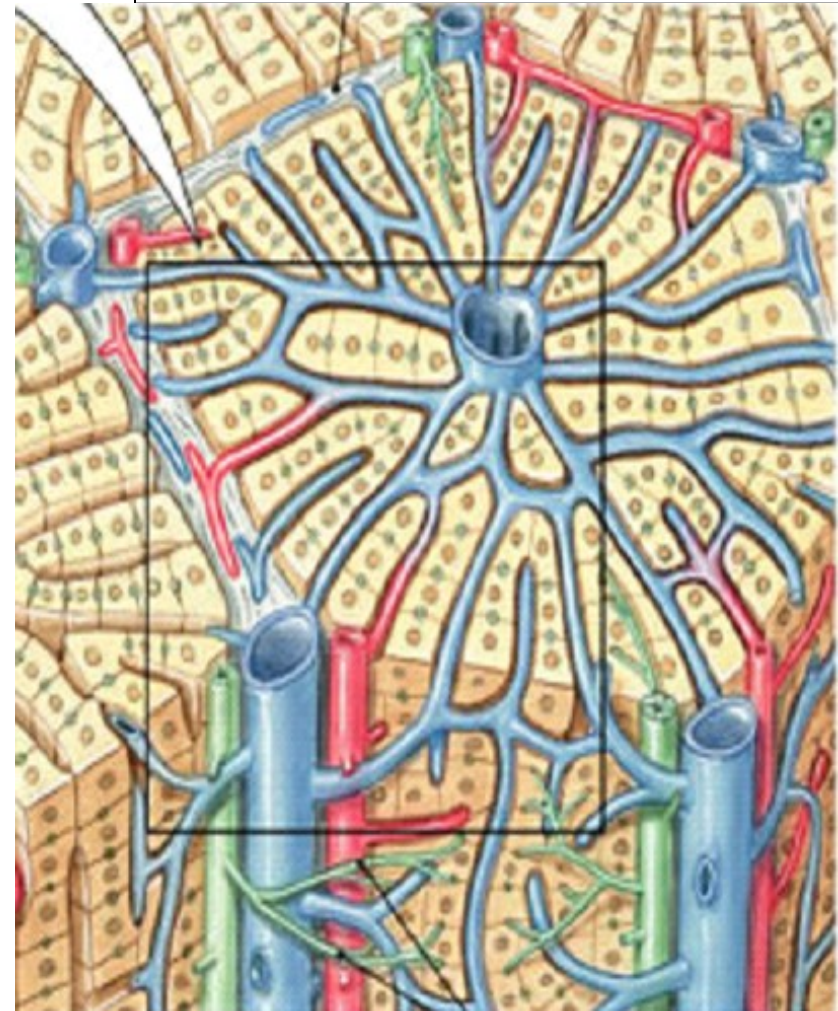
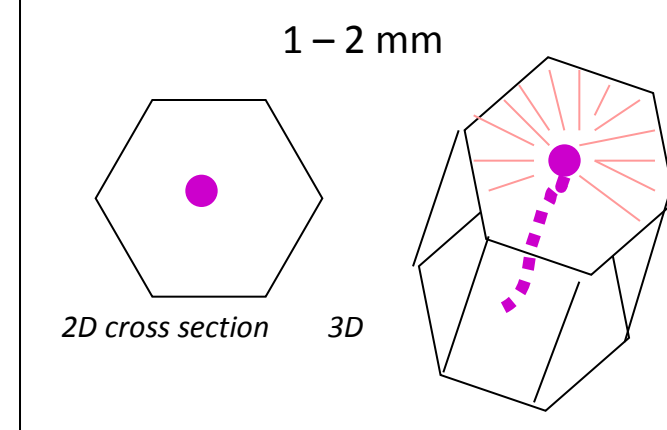


Liver = hepar

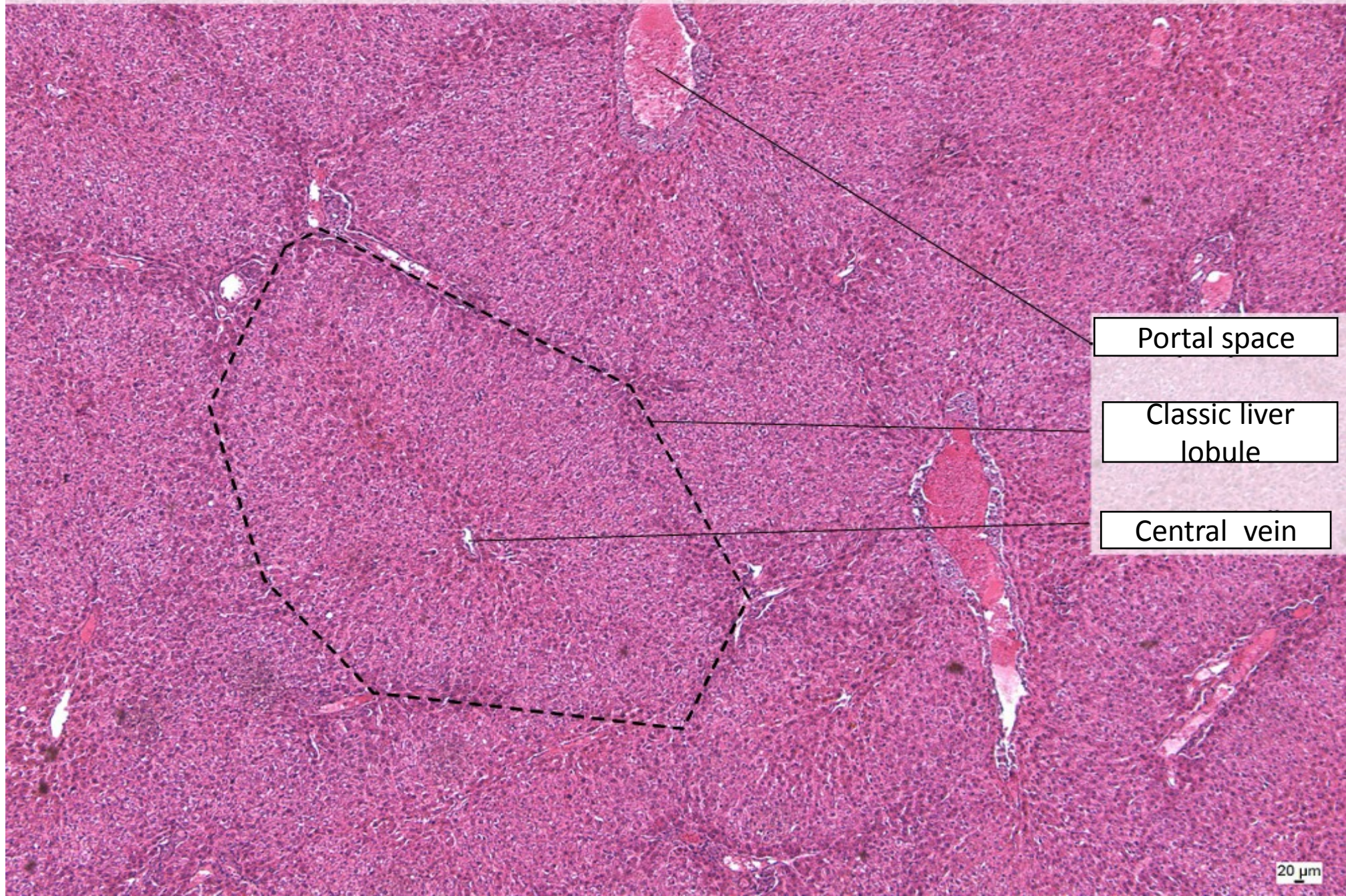


Classic liver lobule

- Shape – polygonal (polyhedral)
- Central vein
- Hepatocytes in interconnected plates
- Liver sinusoids
- Bile canaliculus



Hepar – lobulus venae centralis, (HE), objektiv 5×

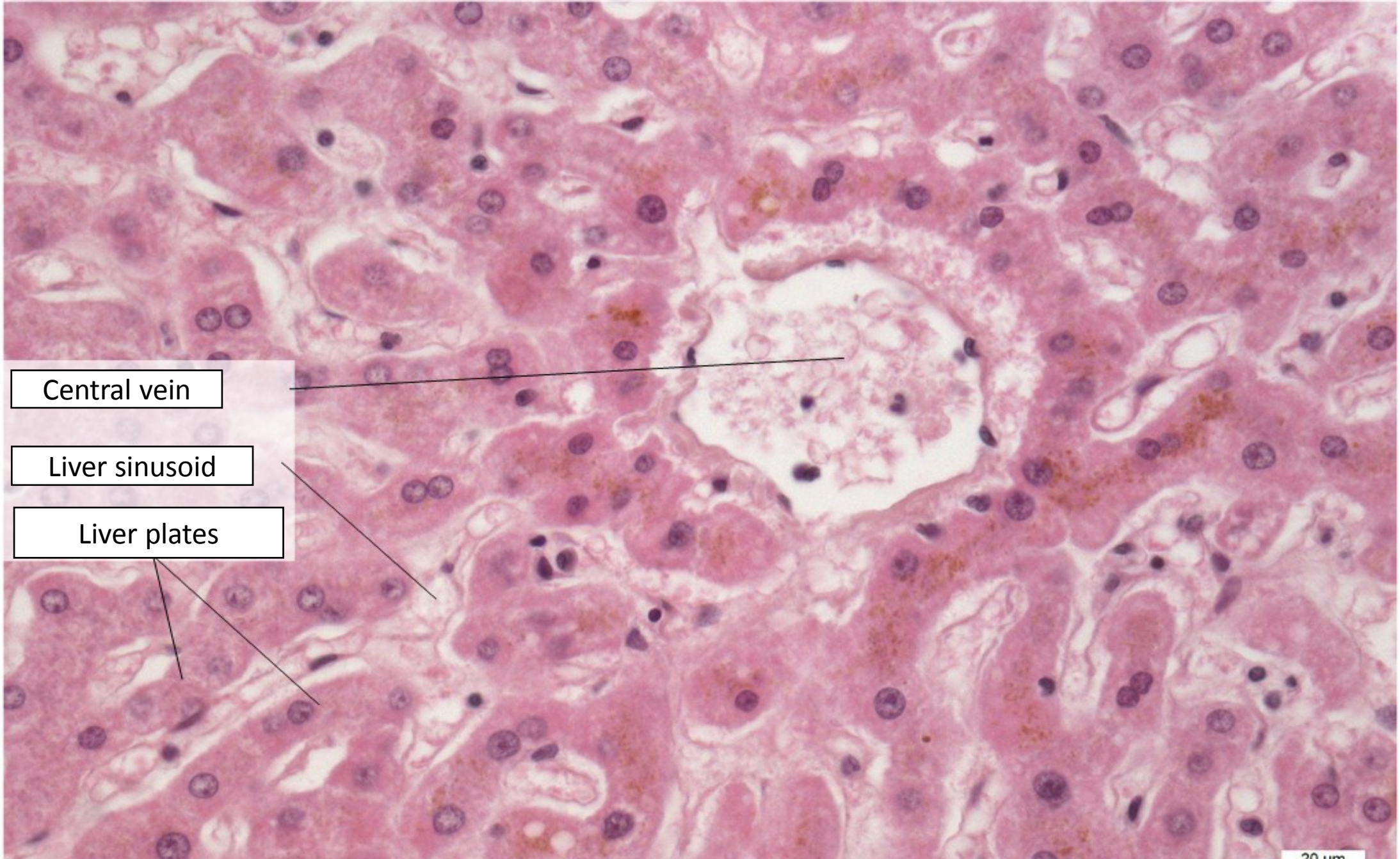


Portal space

Classic liver lobule

Central vein

Hepar – detail lalůčku, (HE), objektiv 40×

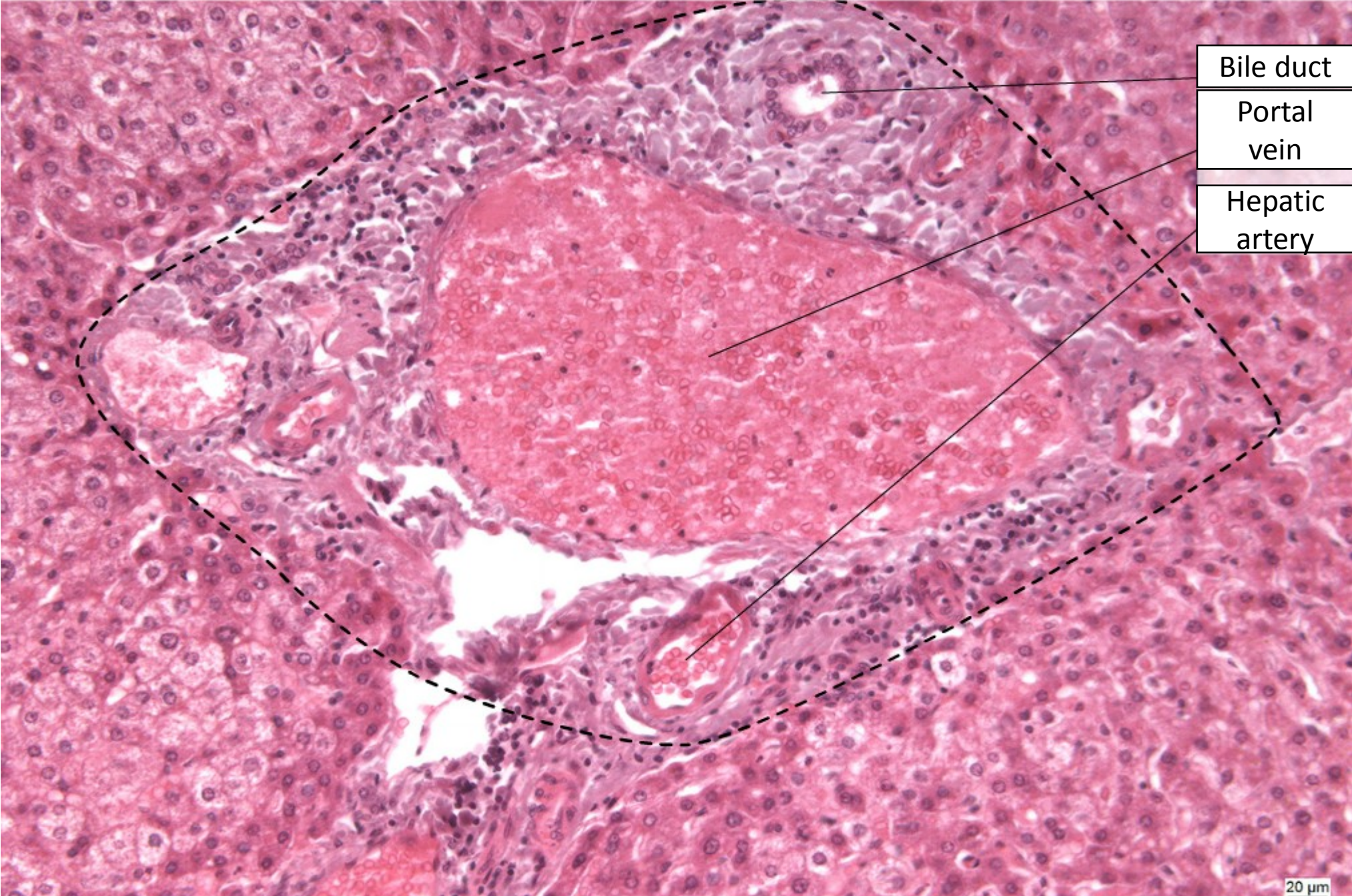


Central vein

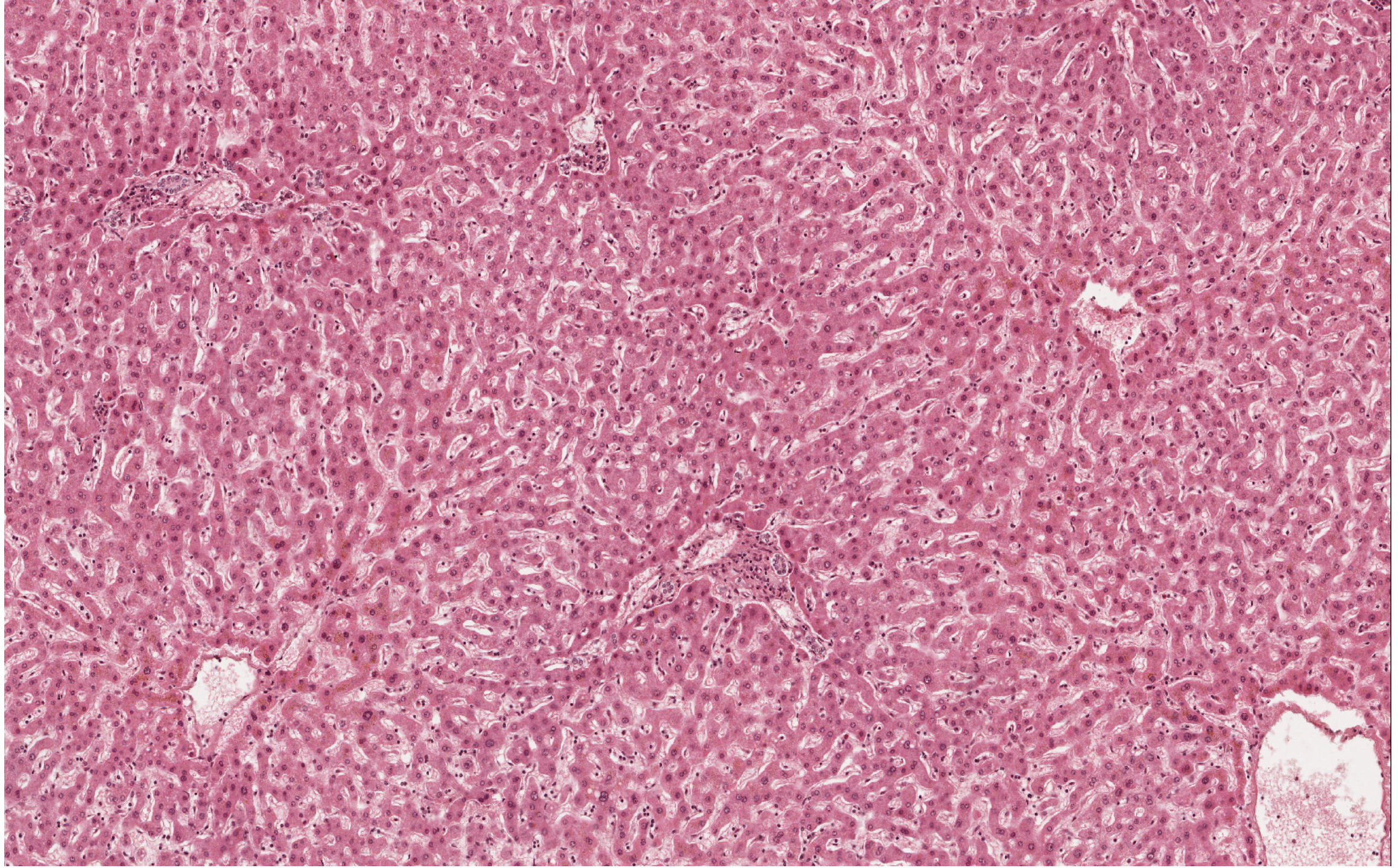
Liver sinusoid

Liver plates

Hepar – area periportalis, (HE), objektiv 20×



- Bile duct
- Portal vein
- Hepatic artery



Vesica fellea, (HEŠ), objektiv 2,5×



Liver parenchyme

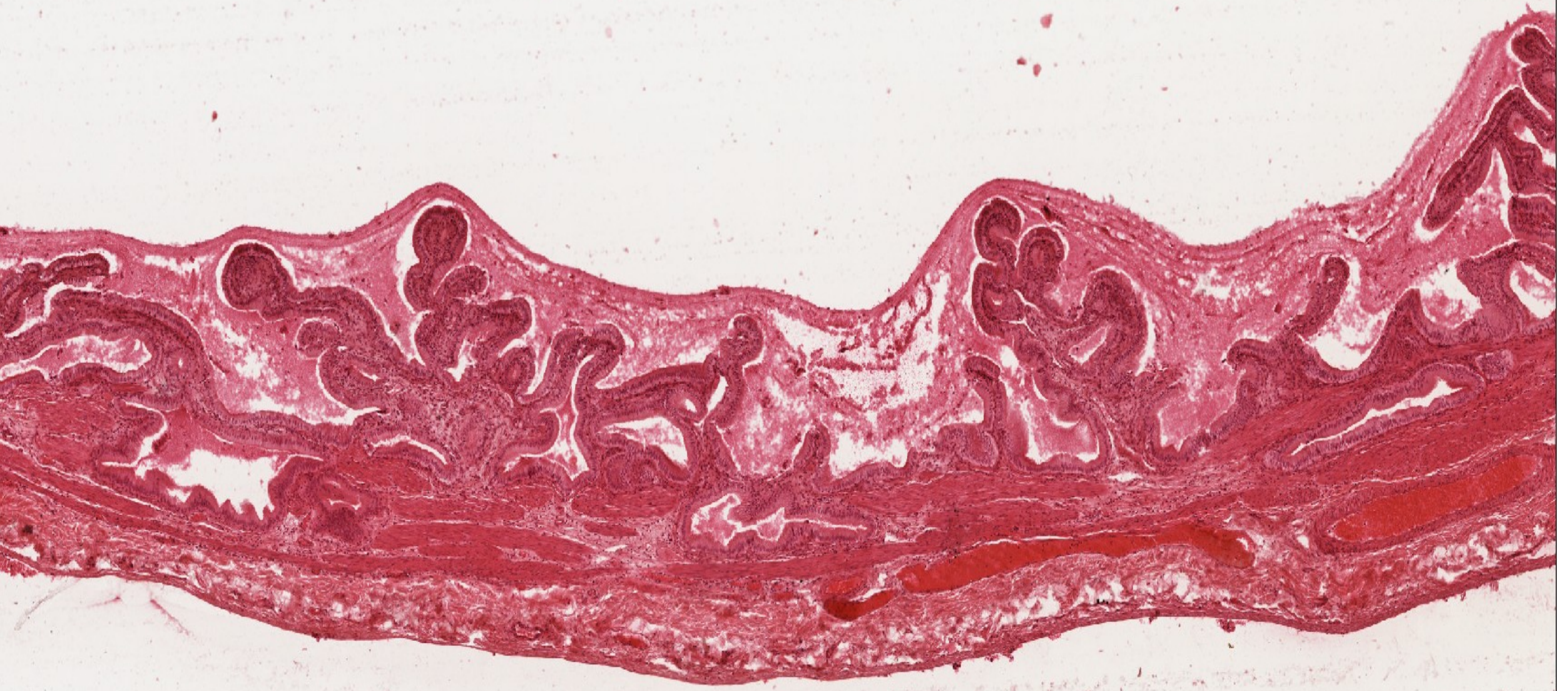
Adventitia

Folds of mucosa

Mucous coat

T. muscularis externa

Serous layer



Gallbladder with mucus

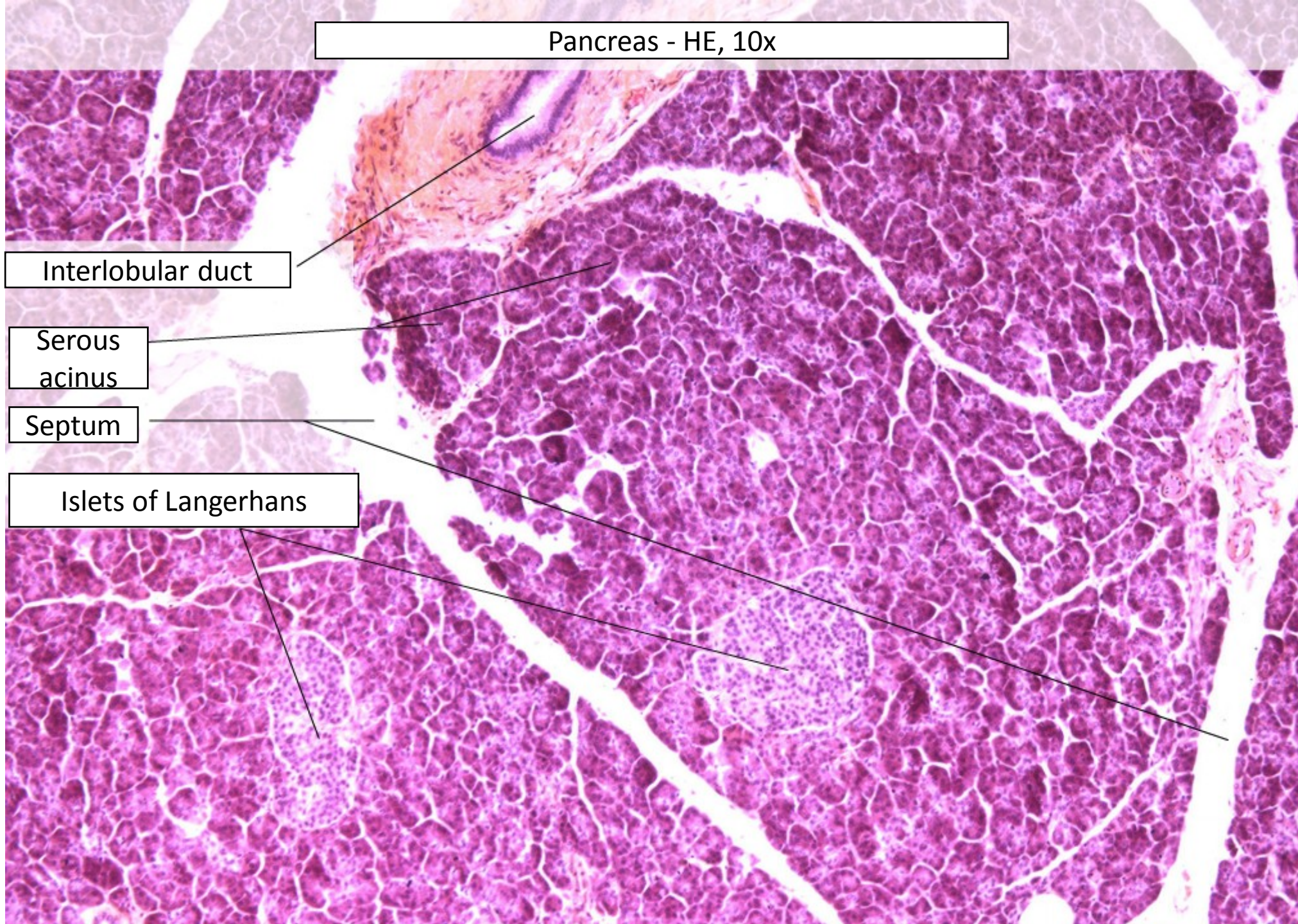
Pancreas - HE, 10x

Interlobular duct

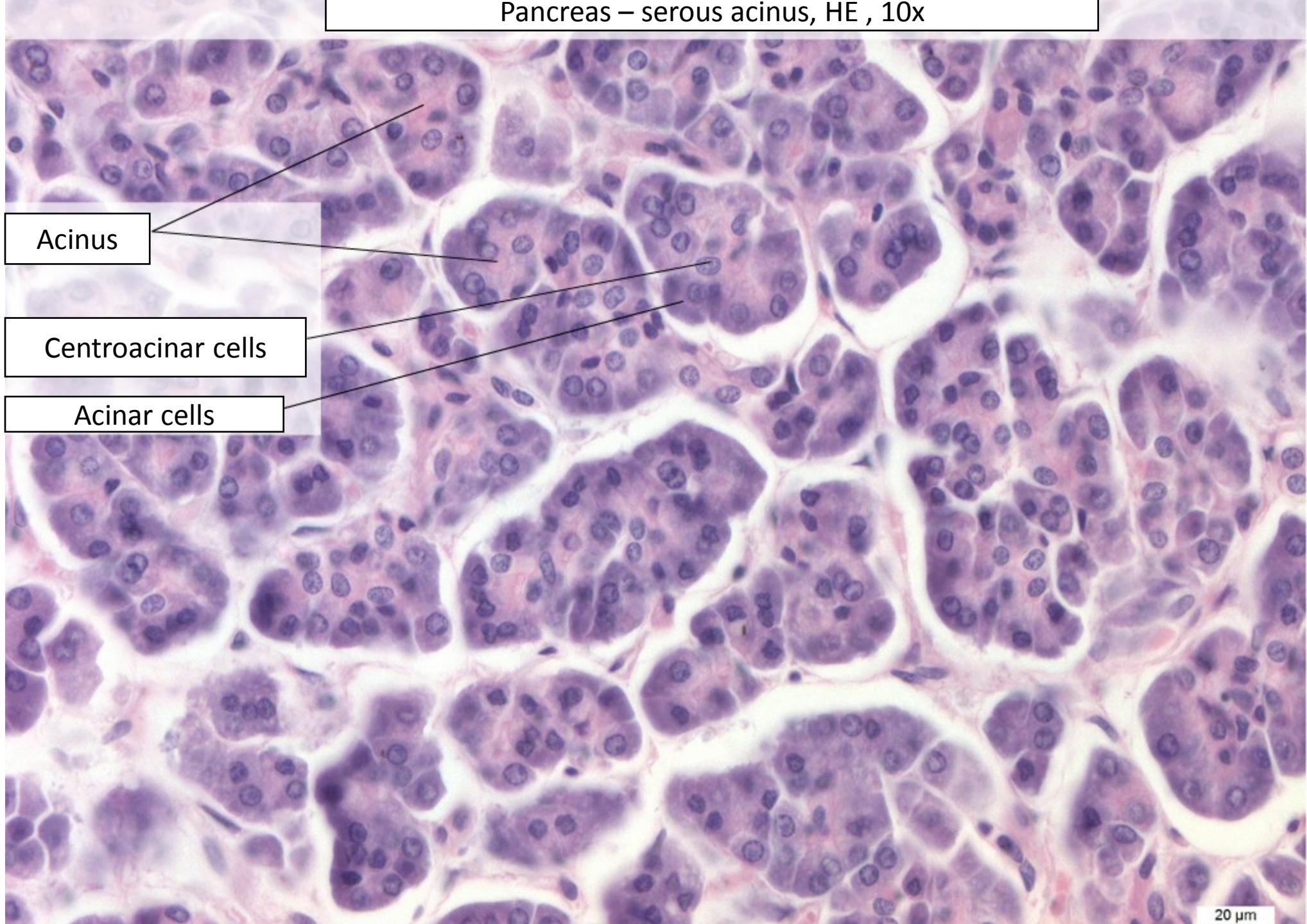
Serous
acinus

Septum

Islets of Langerhans



Pancreas – serous acinus, HE , 10x



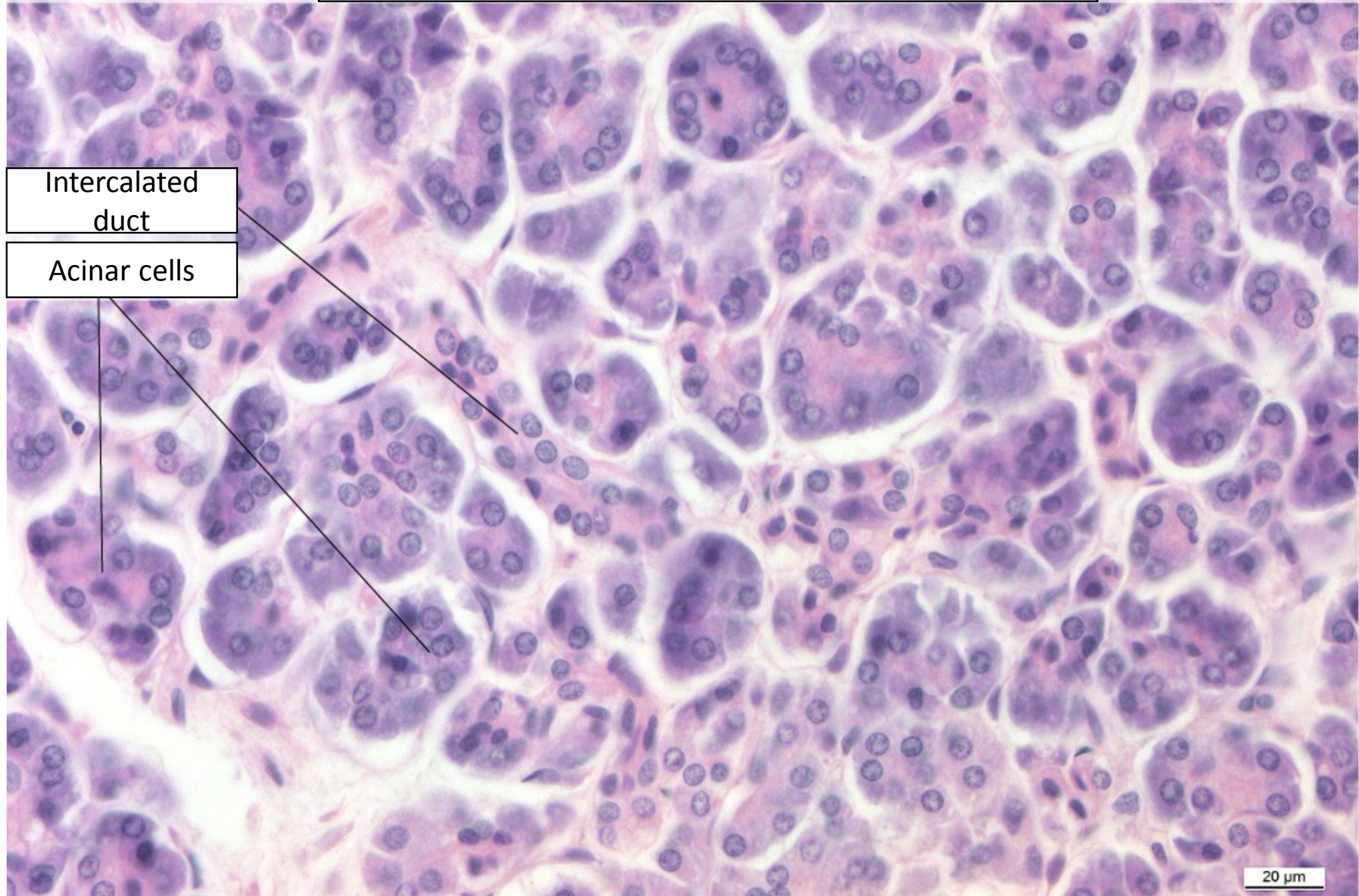
Acinus

Centroacinar cells

Acinar cells

20 μ m

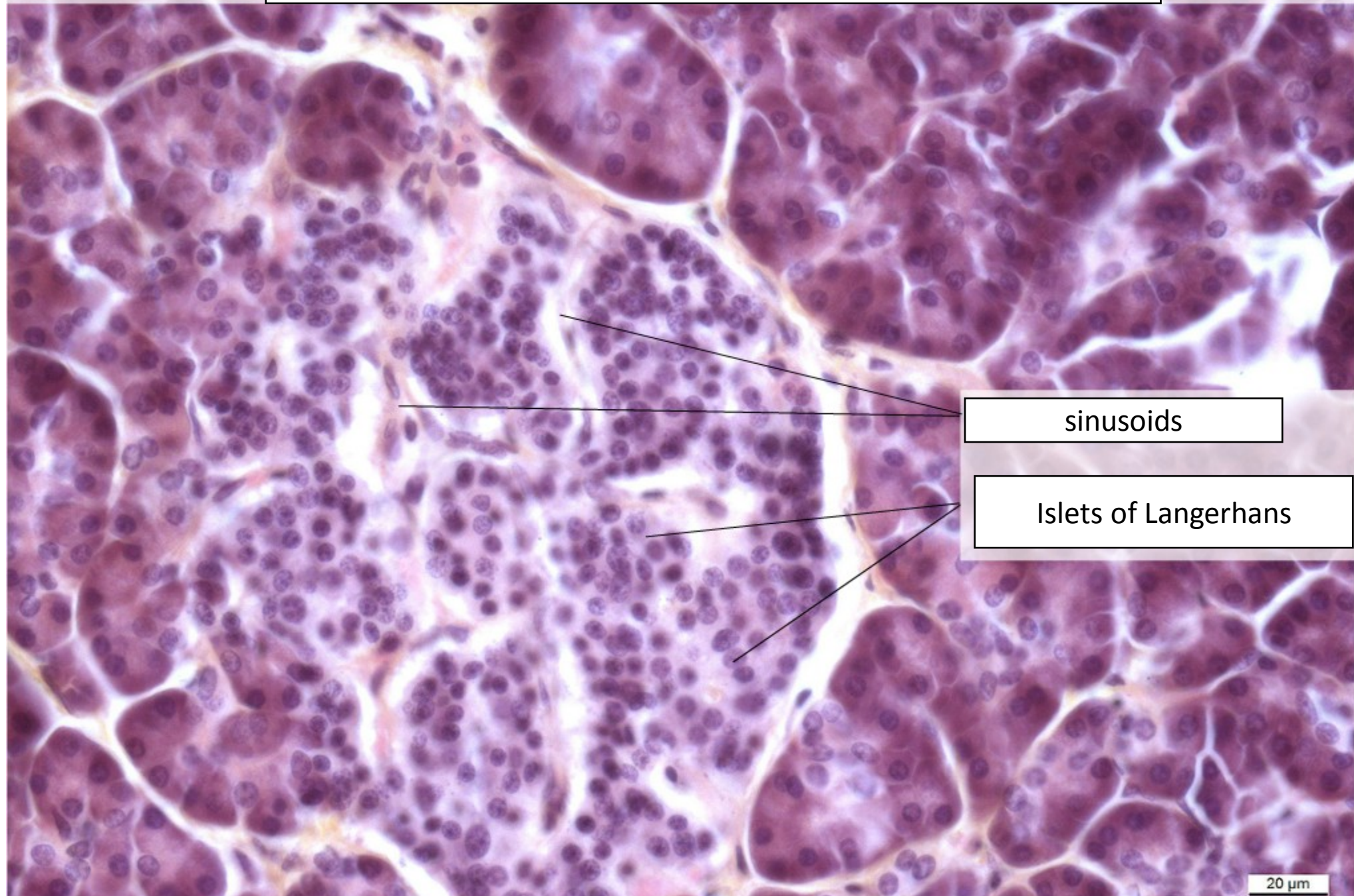
Pancreas, He, 10x



Intercalated
duct

Acinar cells

20 μ m



sinusoids

Islets of Langerhans

3.

Digestive system - III



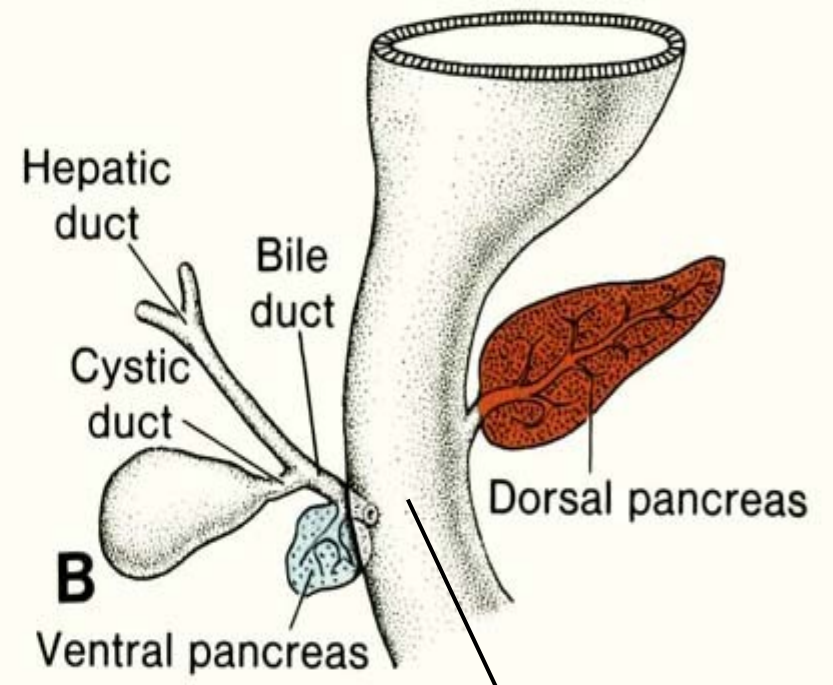
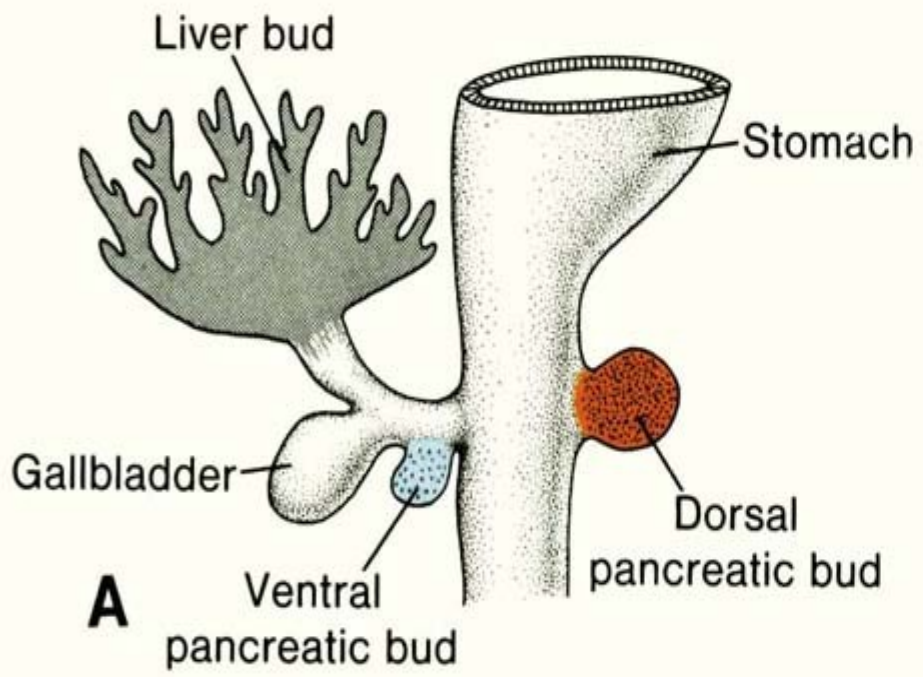
Slides:

- 8. Glandula parotis (HE)
- 9. Glandula submandibularis(HE)
- 10. Glandula sublingualis
- 20. Hepar(HE)
- 21. Hepar (AZAN)
- 22. Vesica fellea (HE)
- 23. Pancreas (HE)

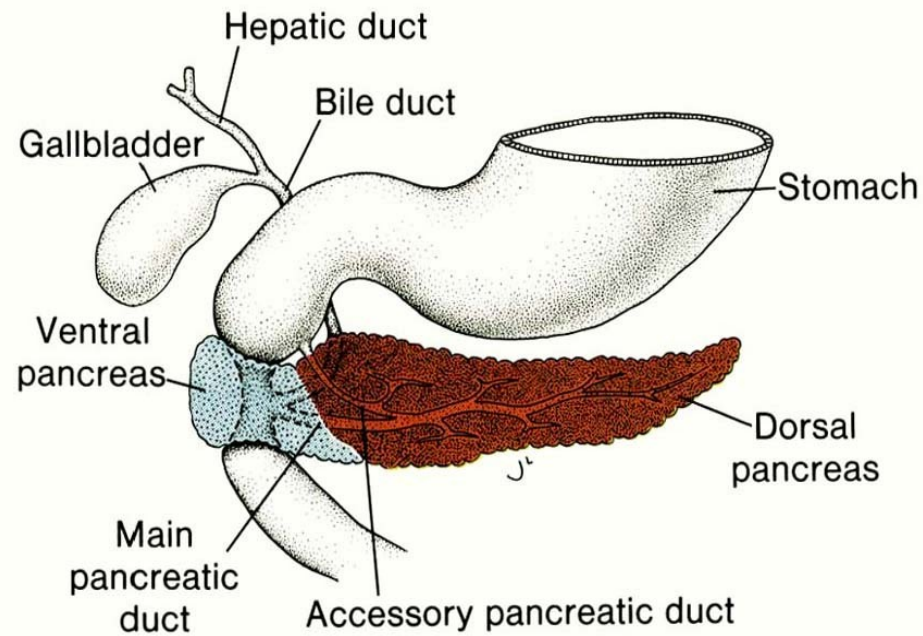
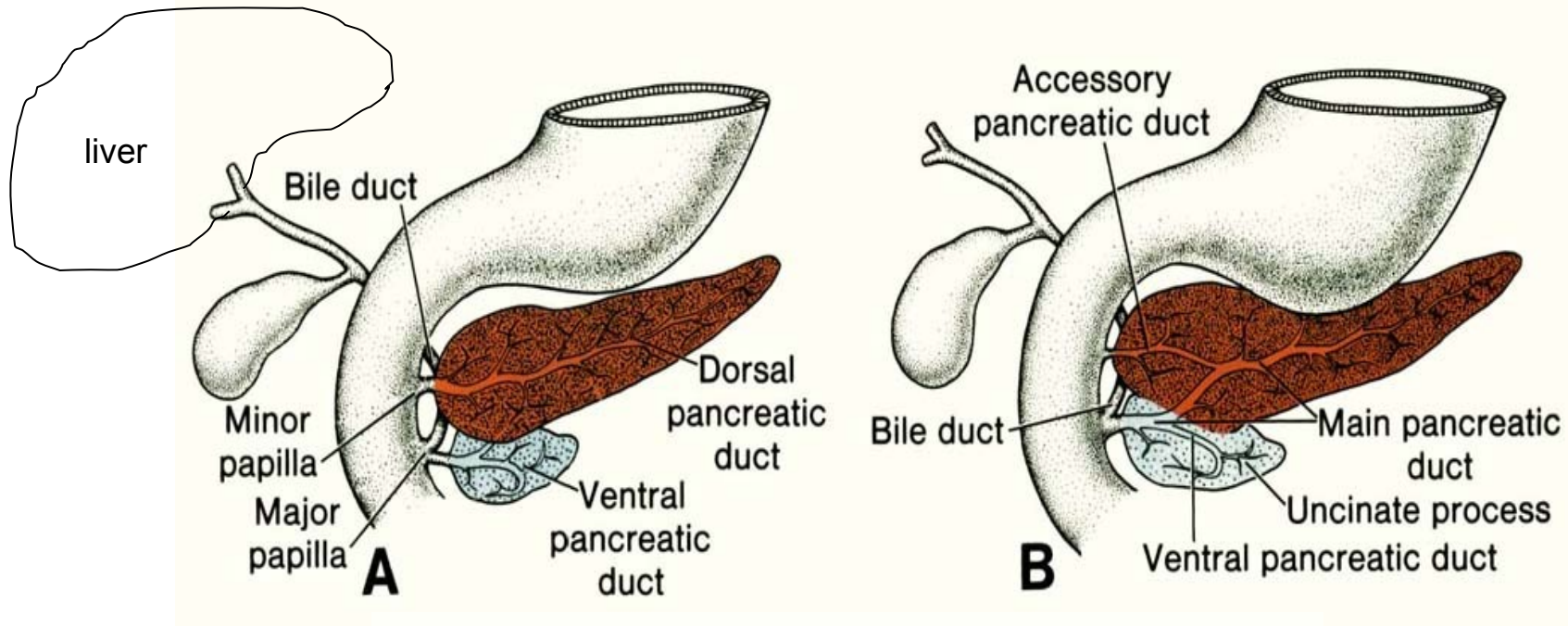


Atlas EM:

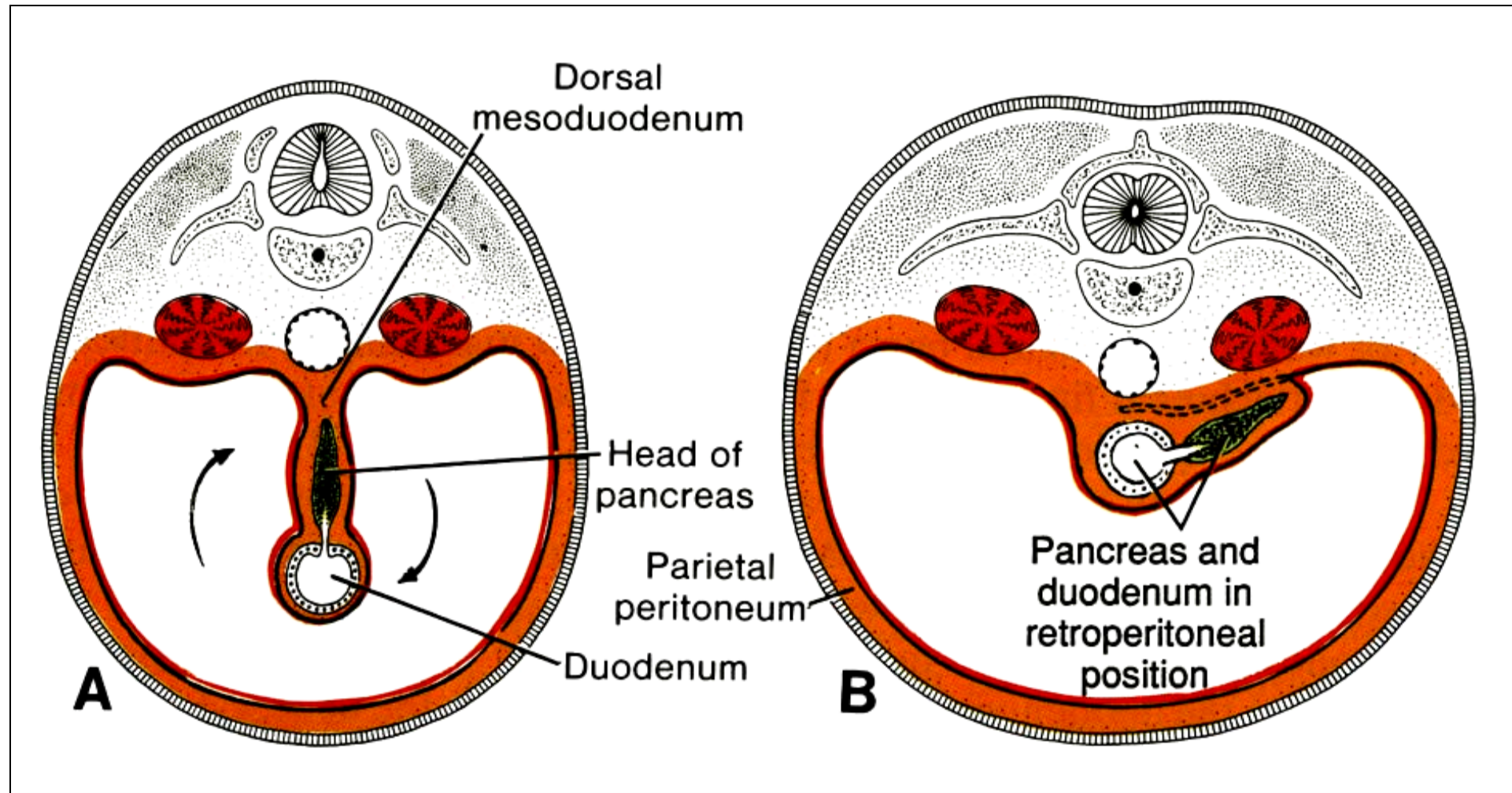
Bile canaliculi (10)



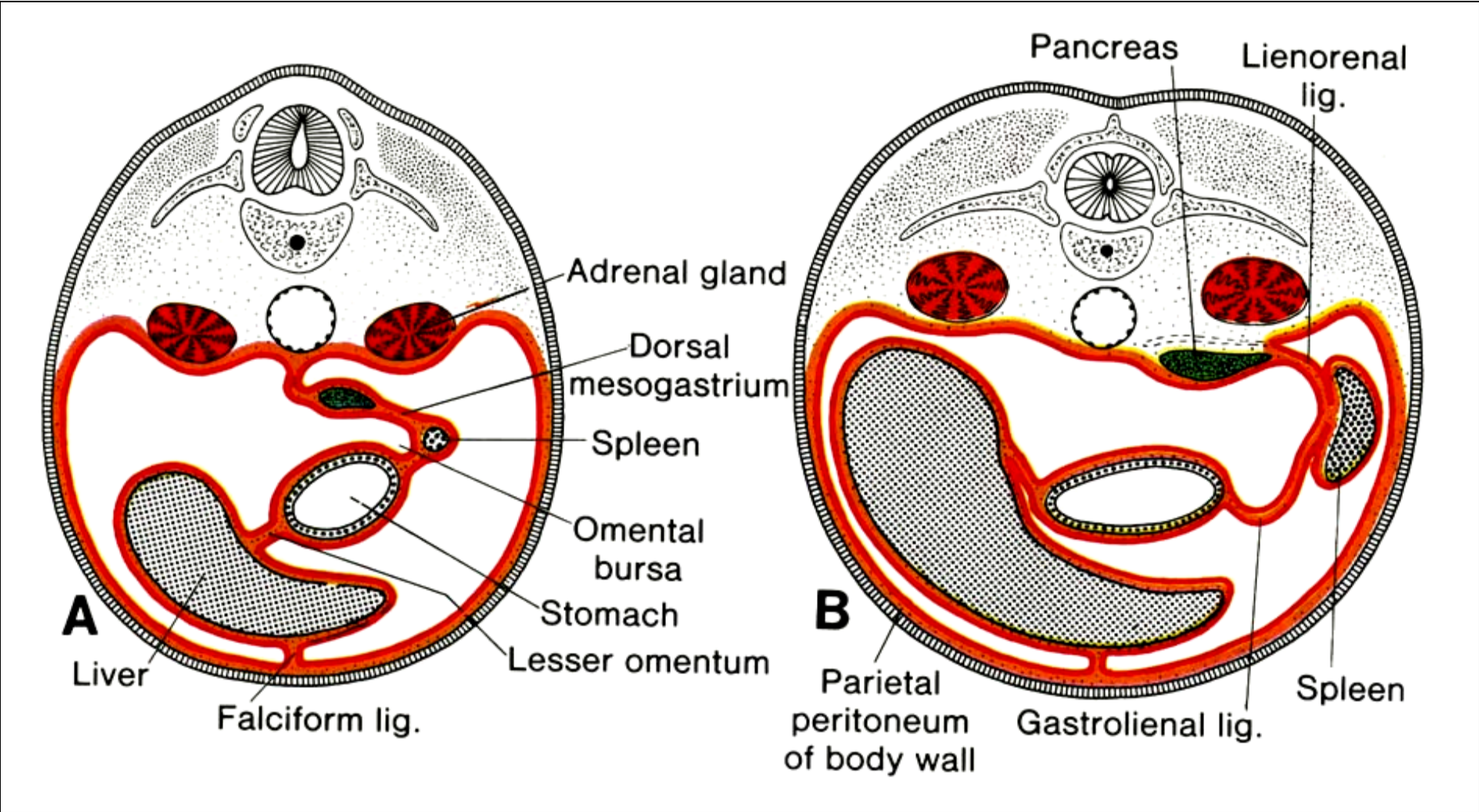
duoednal loop
is formed



Pancreas – passes into dorsal mesoduodenum and mesogastrium by proliferation of endoderm of duodenal loop;
During rotation of stomach and duodenum – duodenum + pancreas are situated retroperitoneally

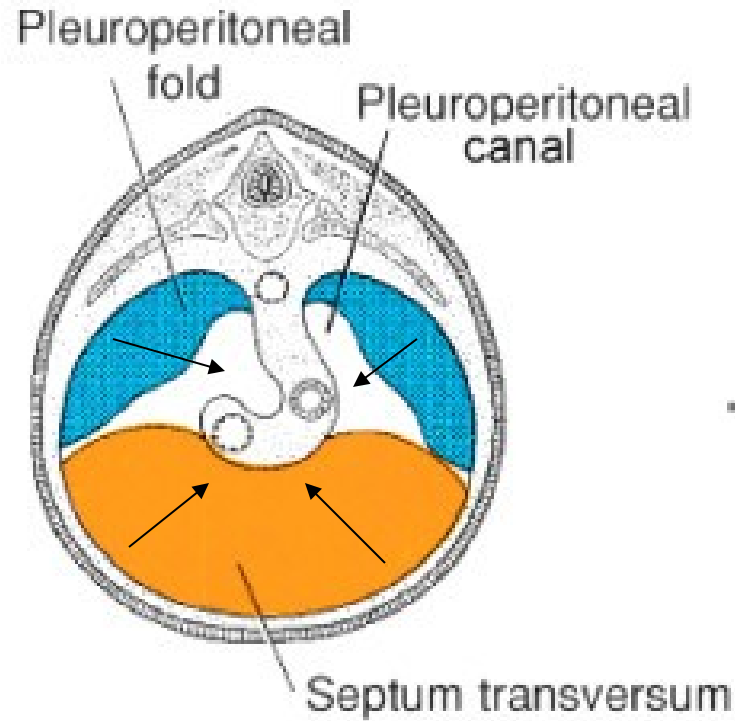


Lien – arises by proliferation of mesoderm cells in dorsal mesogastrium, which is transformed into lig. gastrolienalis a lig. lienorenalis
Spleen is intraperitoneal organ, its surface covers mesothelium.

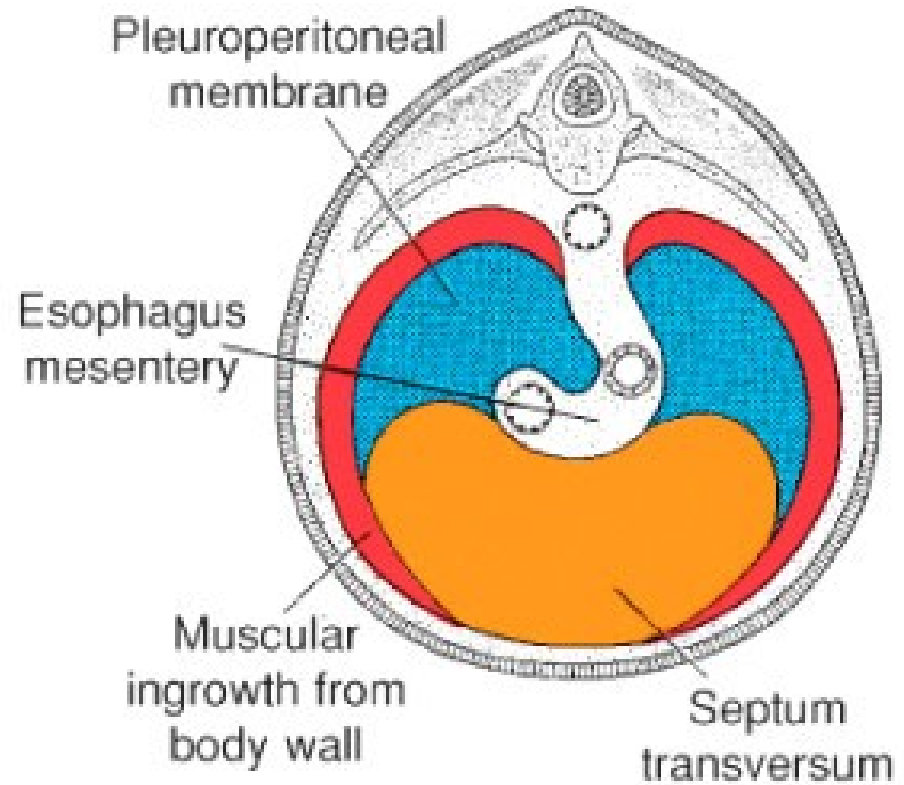


Development of diaphragm

A Week 5



B month 4



The diaphragm originates from:

1. **septum transversum** (mesoderm mass),
2. **plicae pleuroperitoneales**,
3. **mesoesophageum dorsale**,
4. **dorzolateral wall of the body tělní.**