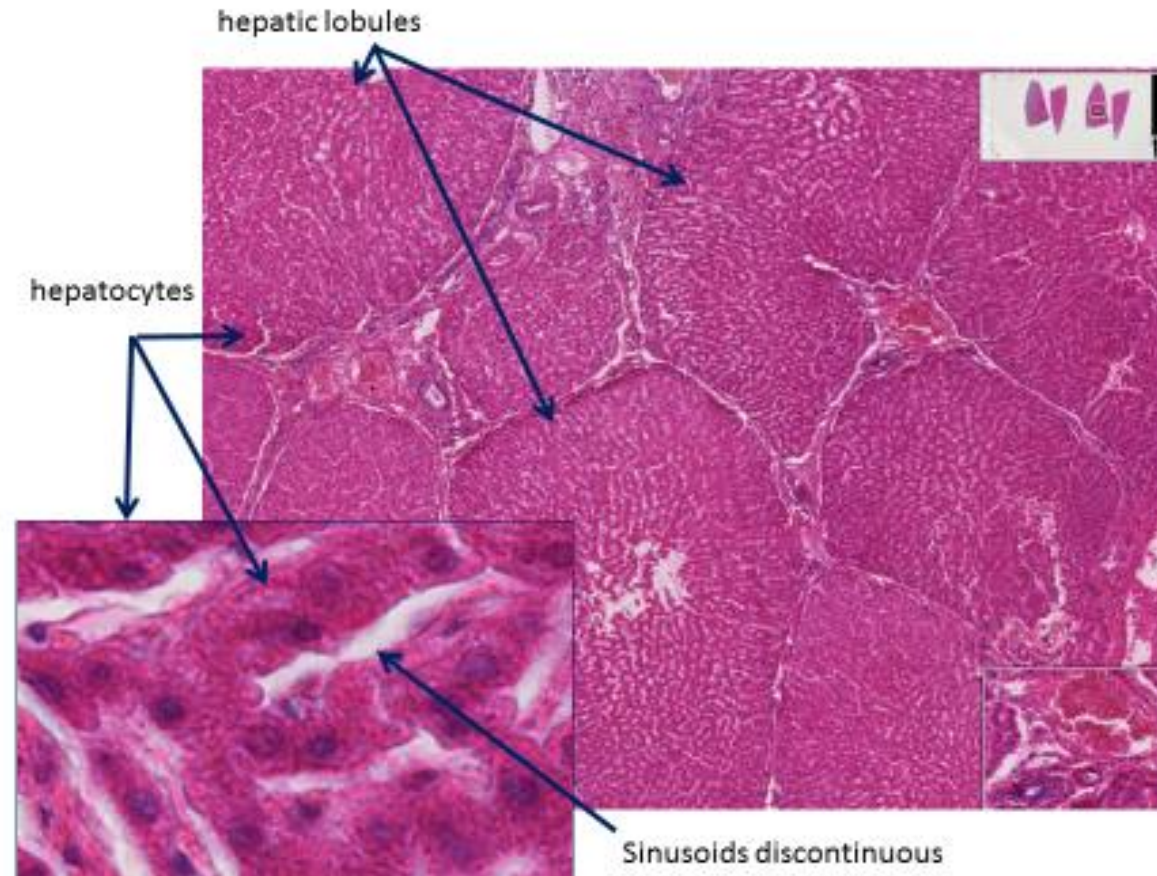
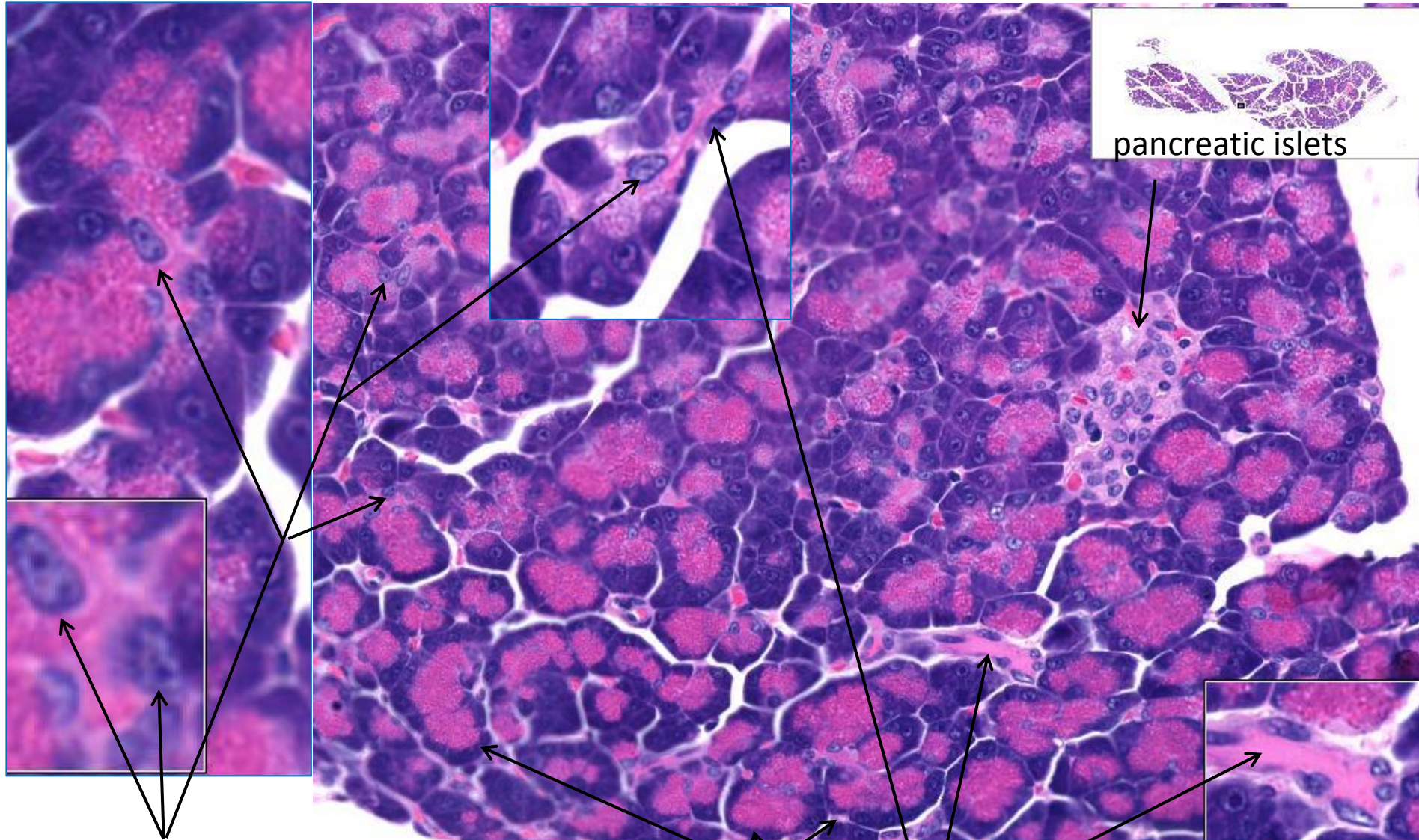


Laboratory exercises for abdominal organs

[DEMO SLIDE BOX 169](#) (P001--H--84B) – Liver, pig.



Slide #77 (C007--H--107A). Pancreas, dog.



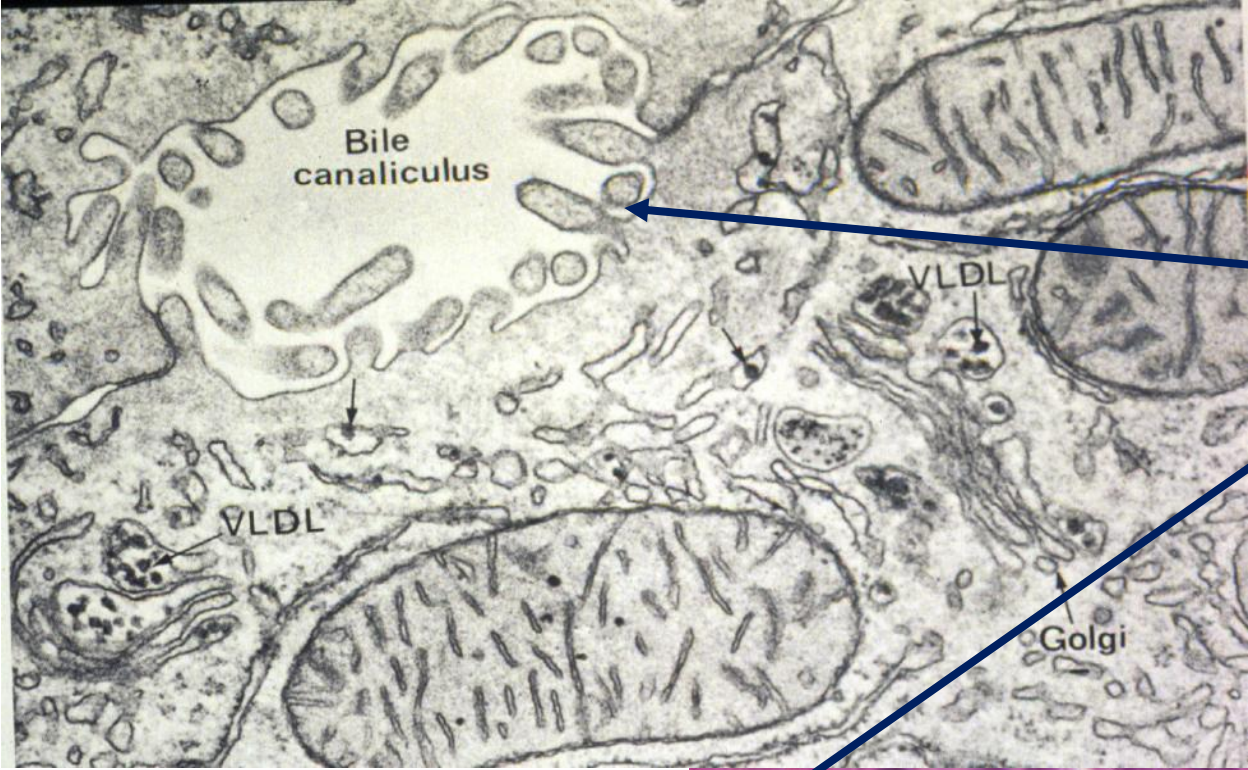
pancreatic islets

serous acini

INTERCALATED DUCTS

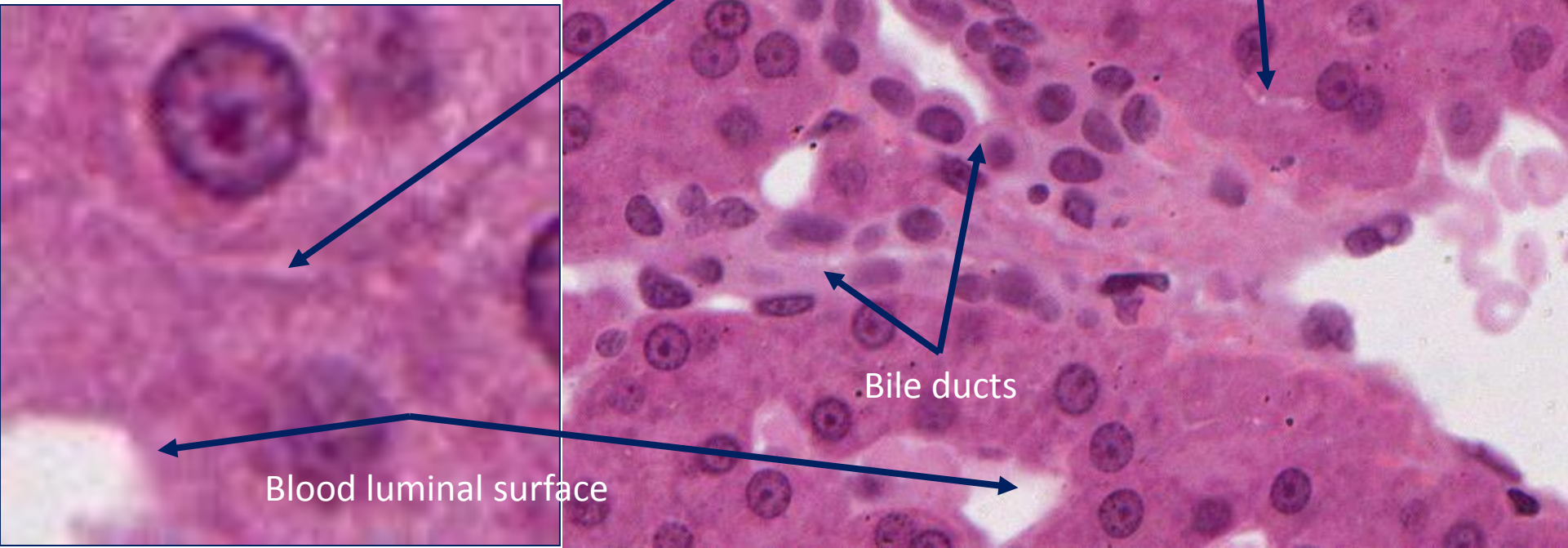
CENTROACINAR CELLS ARE THE BEGINNING CELLS OF THE INTERCALATED DUCTS THAT DRAIN THE SECRETORY ACINI OF THE PANCREAS. THEY SECRETE BICARBONATE

Bile Canaliculi



Bile luminal surfaces

155

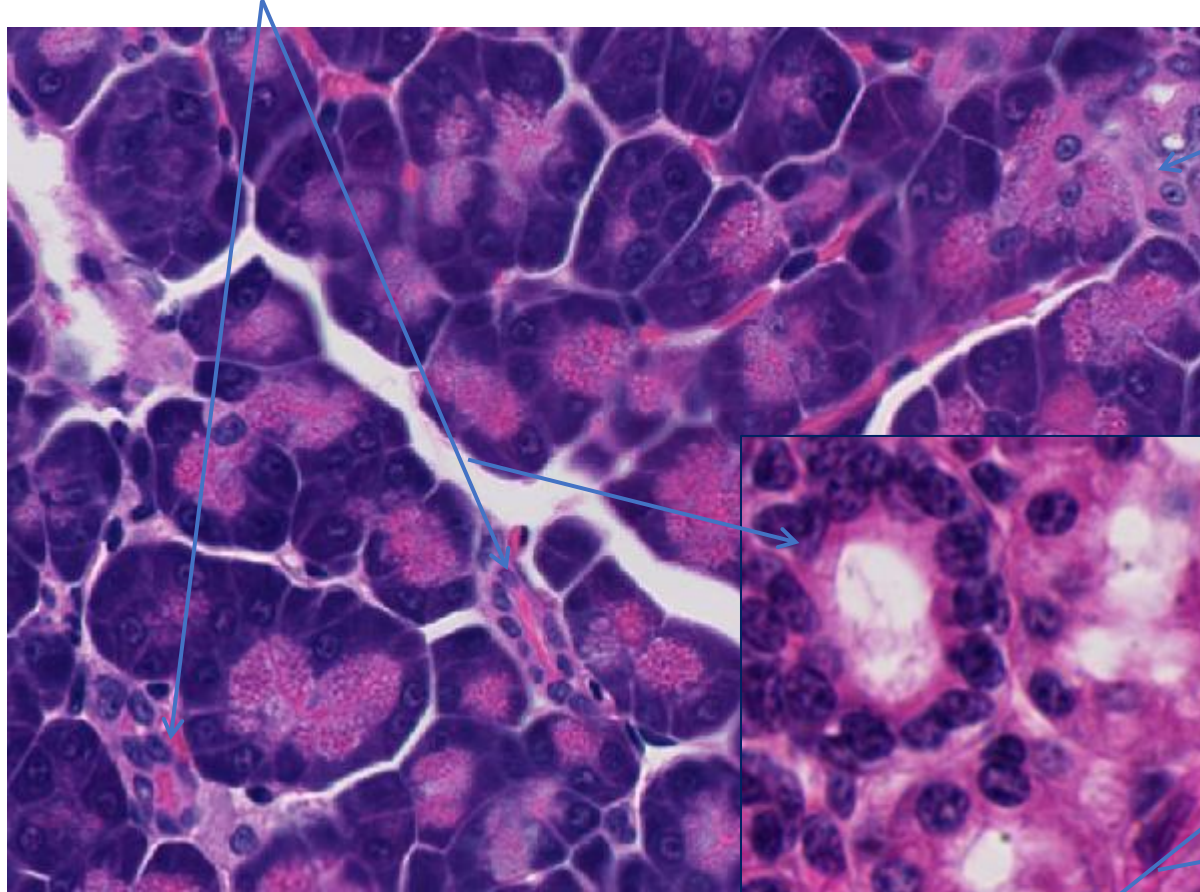


Blood luminal surface

Bile ducts

Slide #77 (C007--H--107A). Pancreas, dog.

INTERCALATED DUCTS



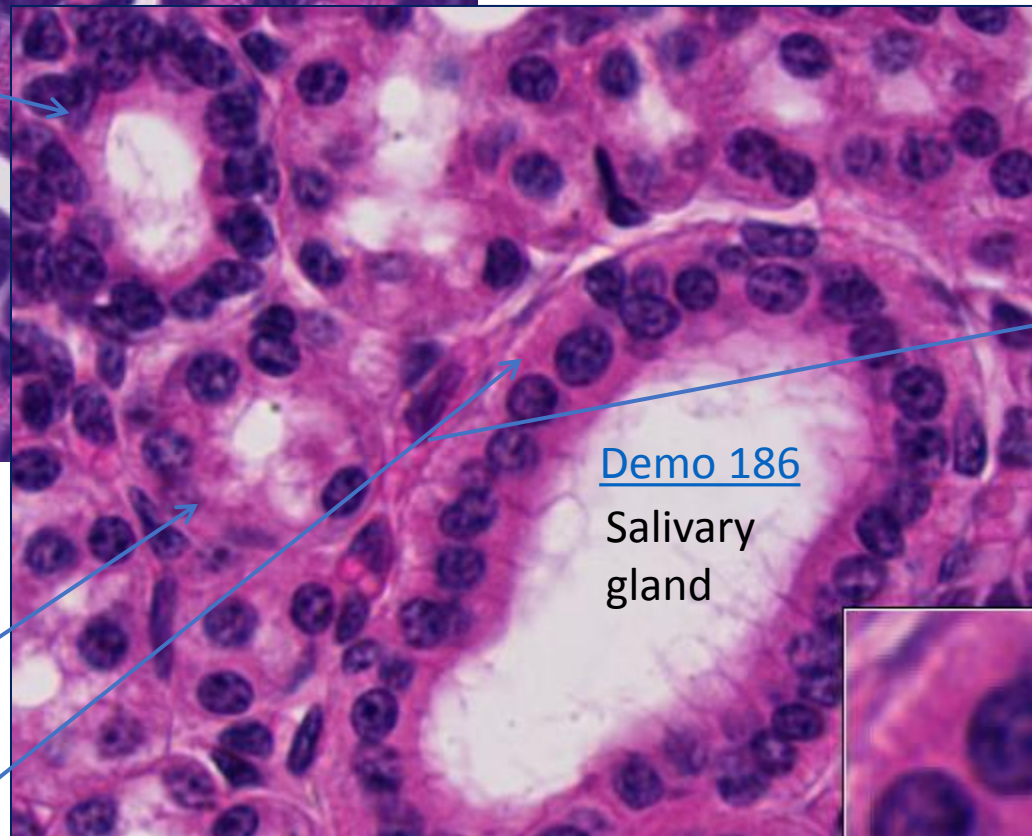
pancreatic islets

Pancreas has
Islets and centroacinar cells,
but no striated ducts

Compared to the
salivary glands

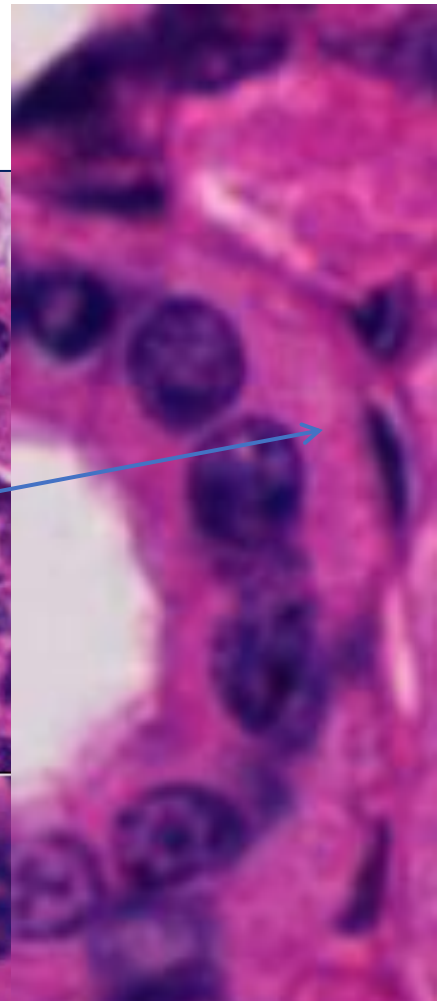
The salivary gland has
striated ducts, but no islets
and centroacinar cells

Striations in base of duct cells



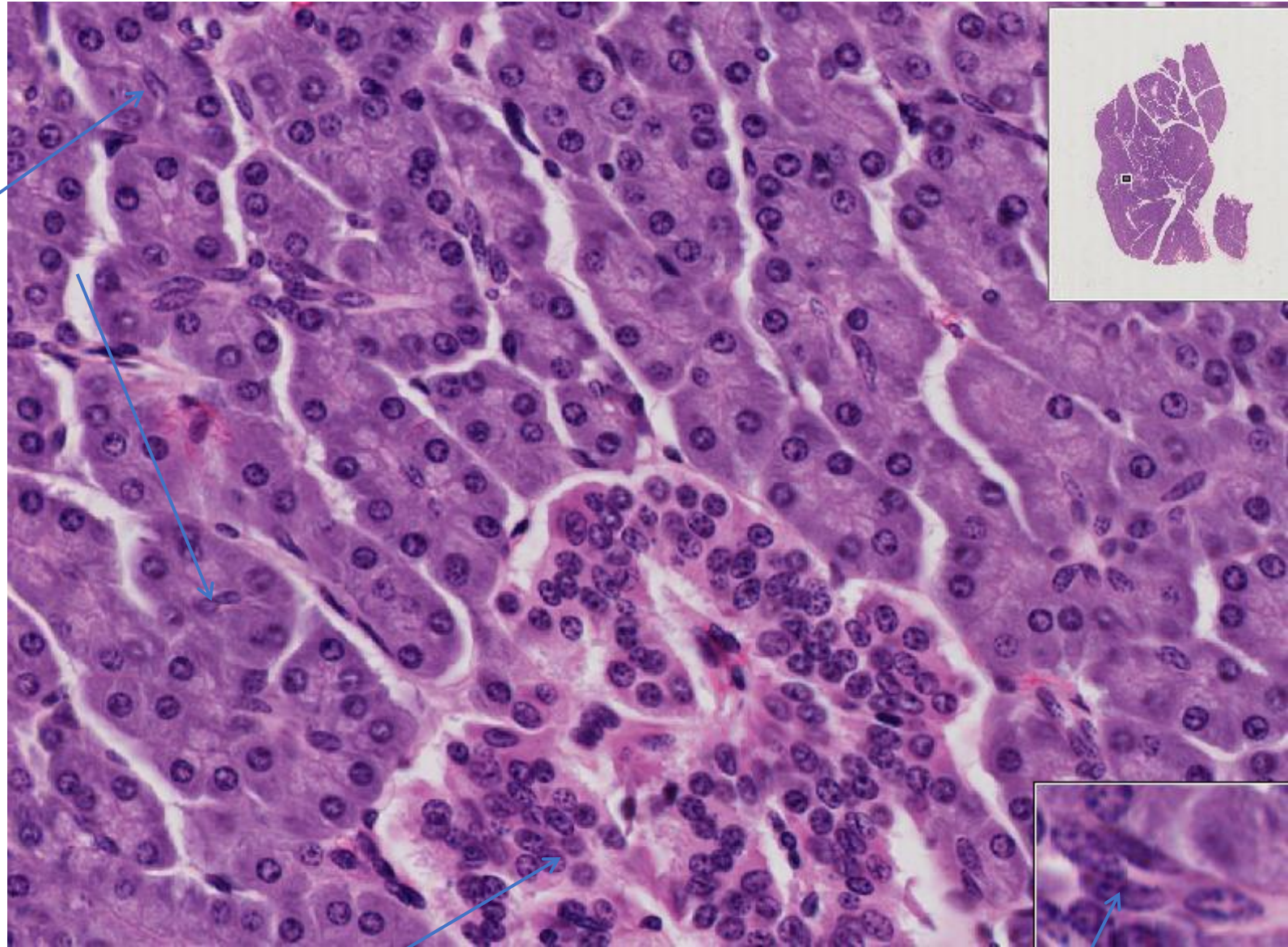
Demo 186

Salivary
gland



Slide #193 (GT--1--102). Pancreas, goat.

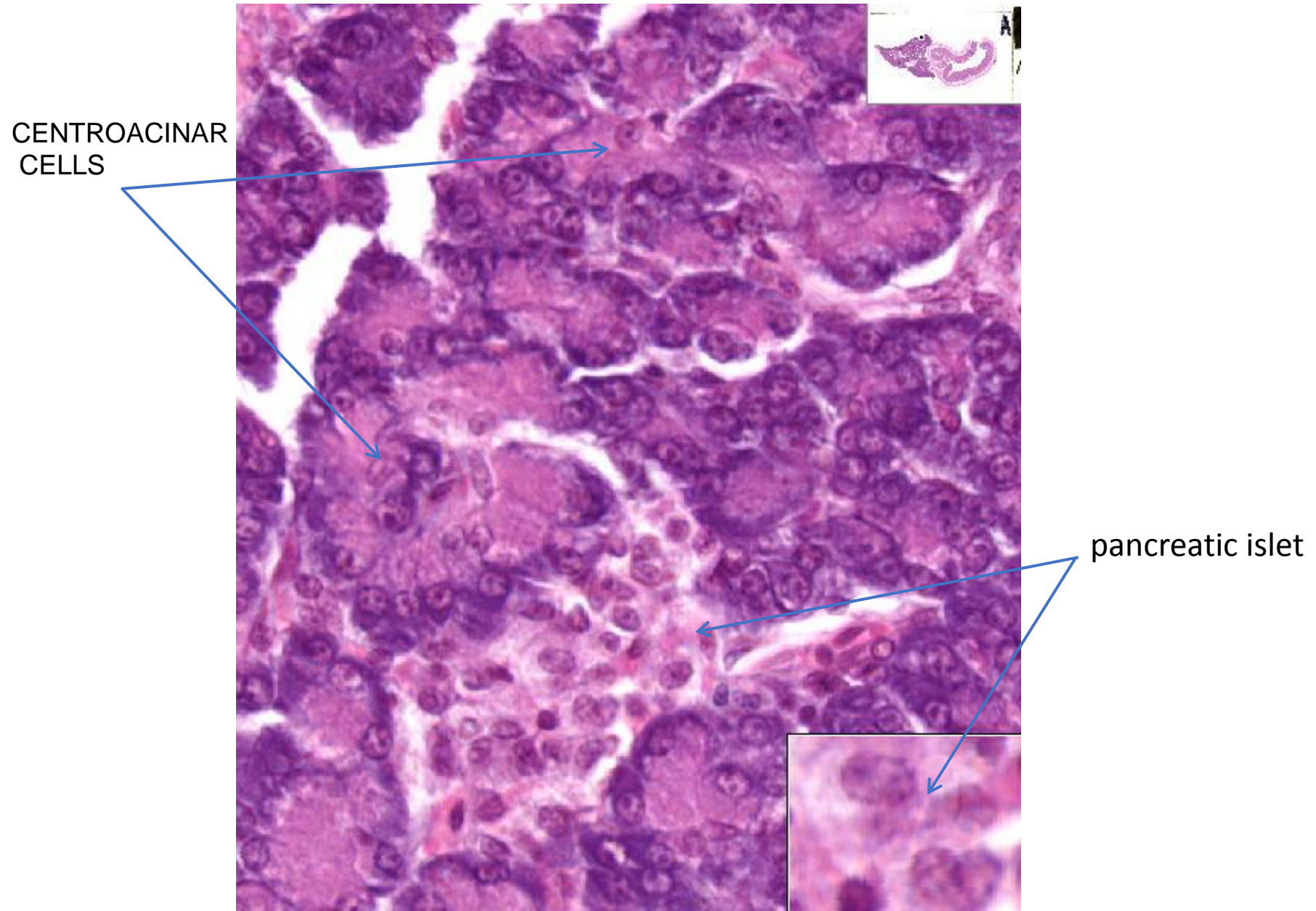
CENTROACINAR
CELLS
are the beginning of
the intercalated duct
that originated within
the lumen of the
acina



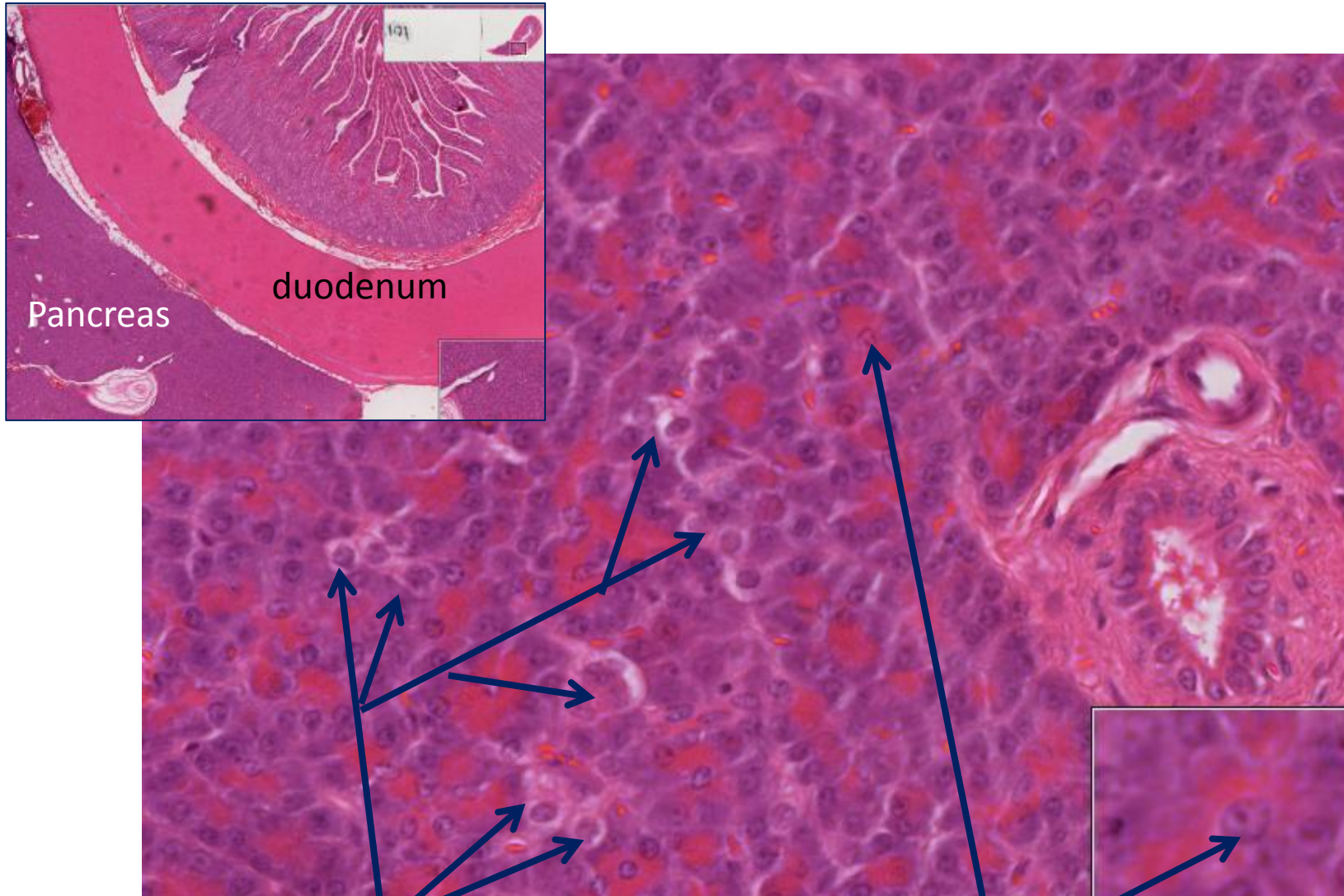
pancreatic islets

INTERCALATED DUCTS

DEMO SLIDE BOX 180– Small intestine (duodenum) and pancreas, dog. (157)

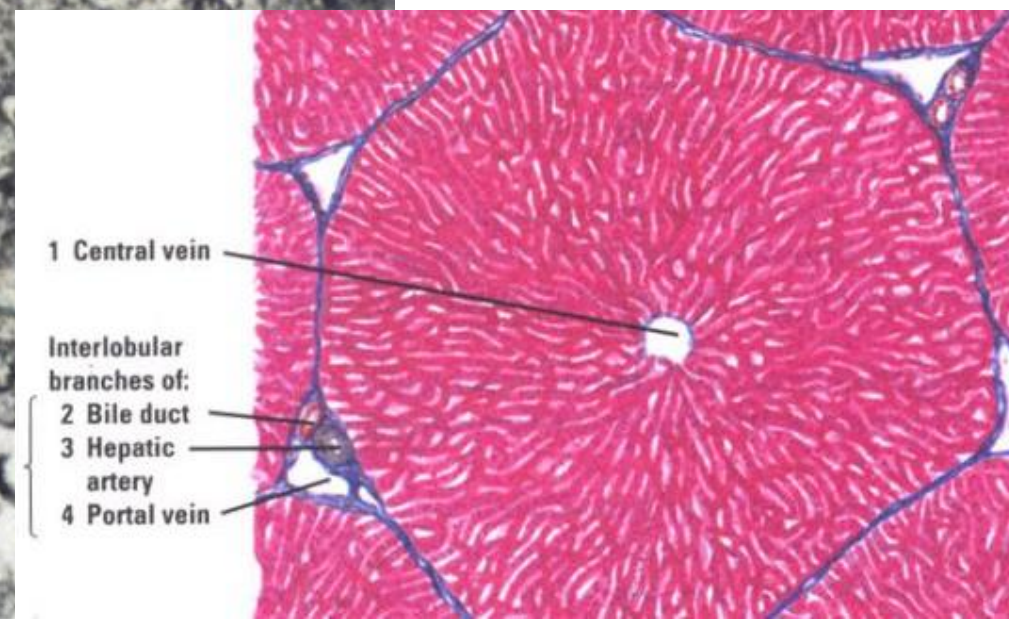
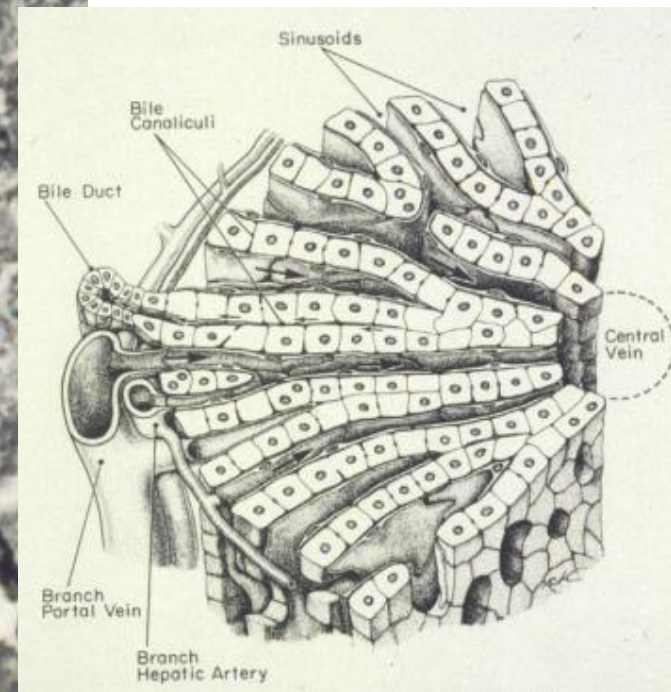
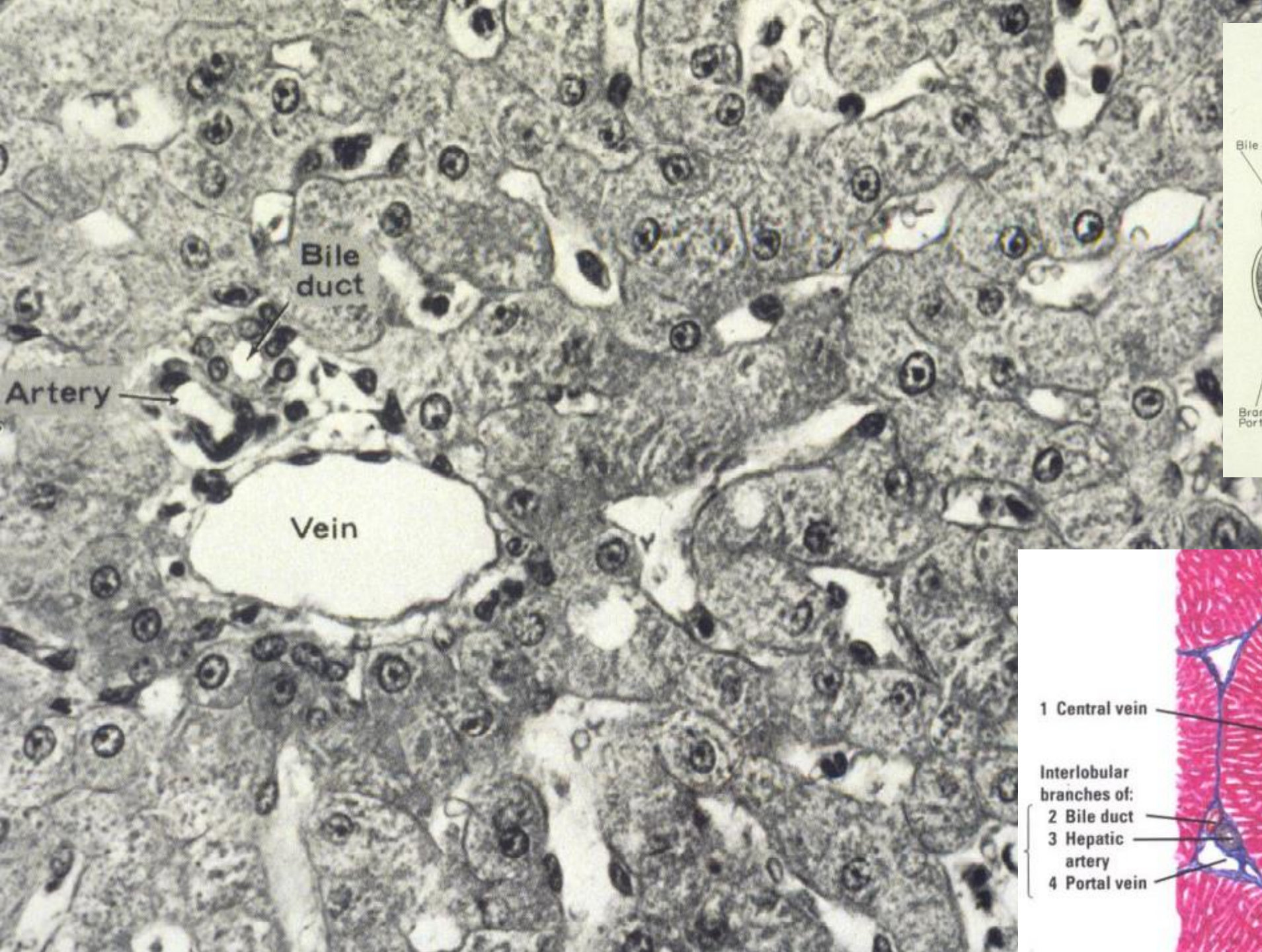


Slide #93 (1017) -- Pancreas and duodenum, cat.)



Dispersed pancreatic islet cells

CENTROACINAR
CELLS



Liver

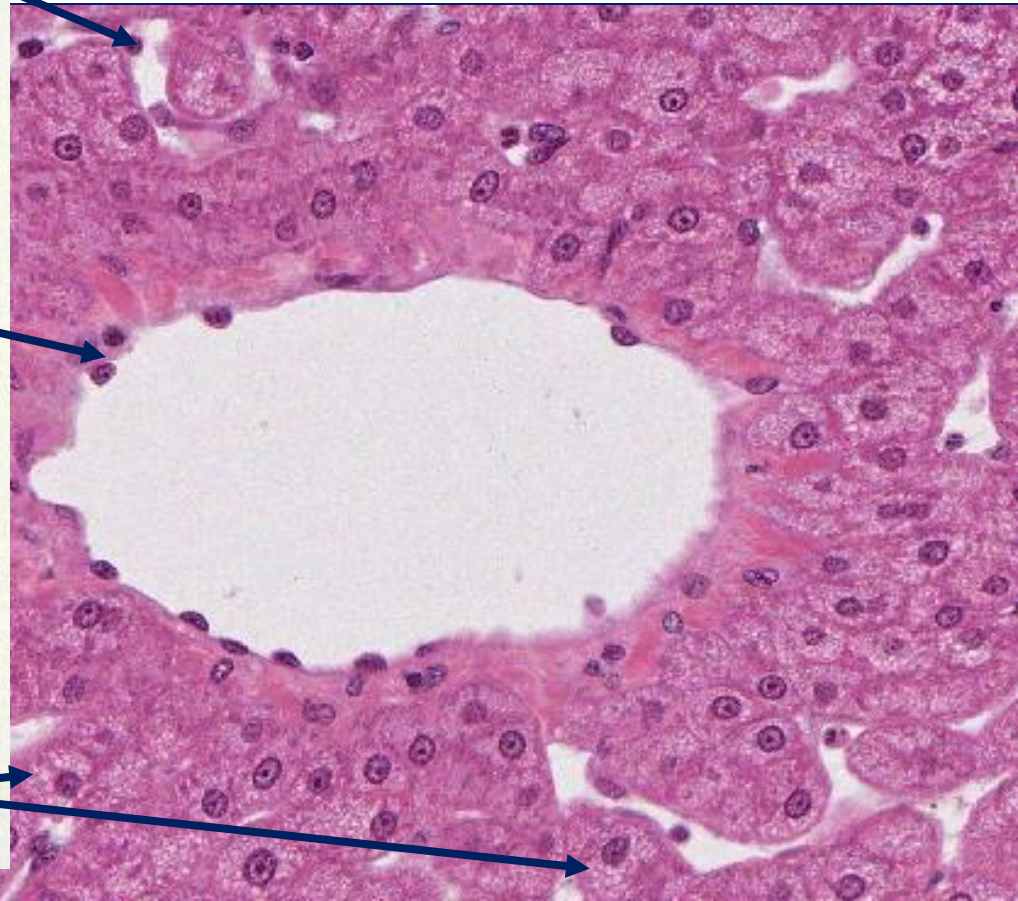
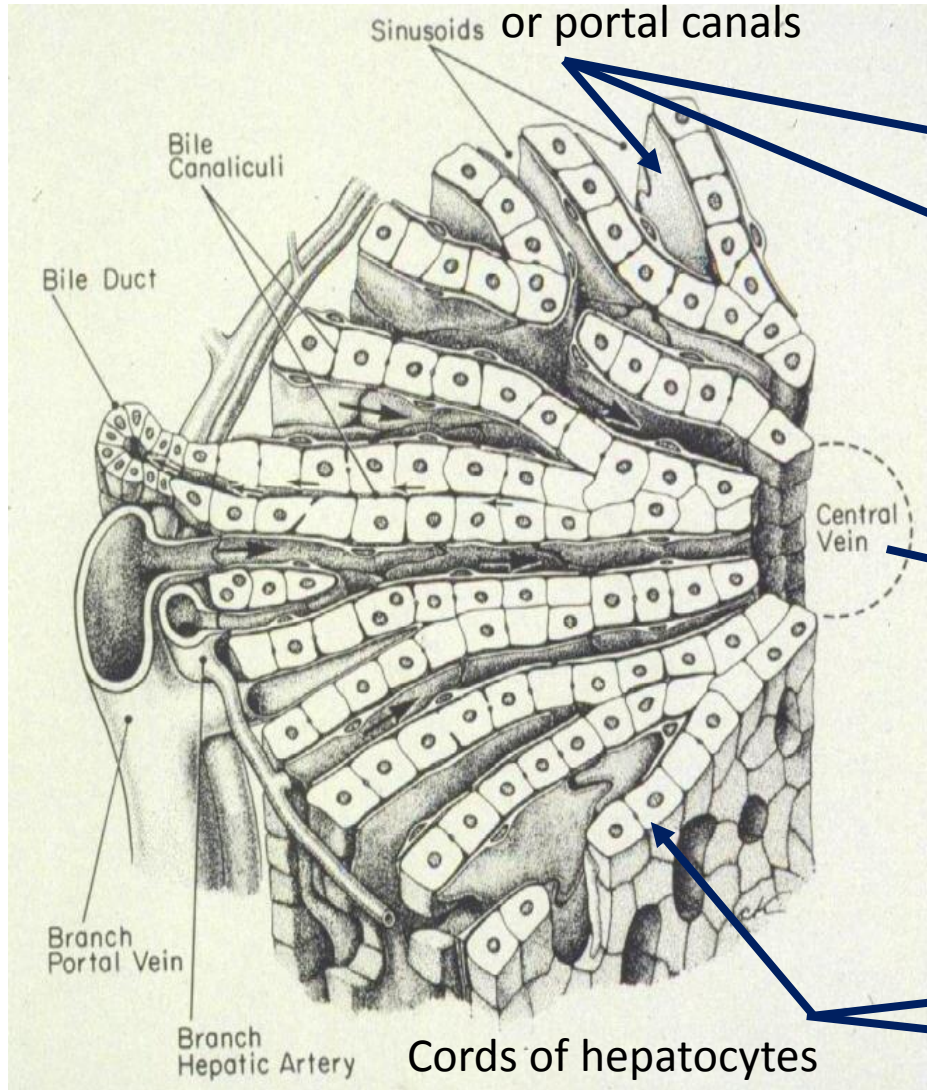
A bile duct

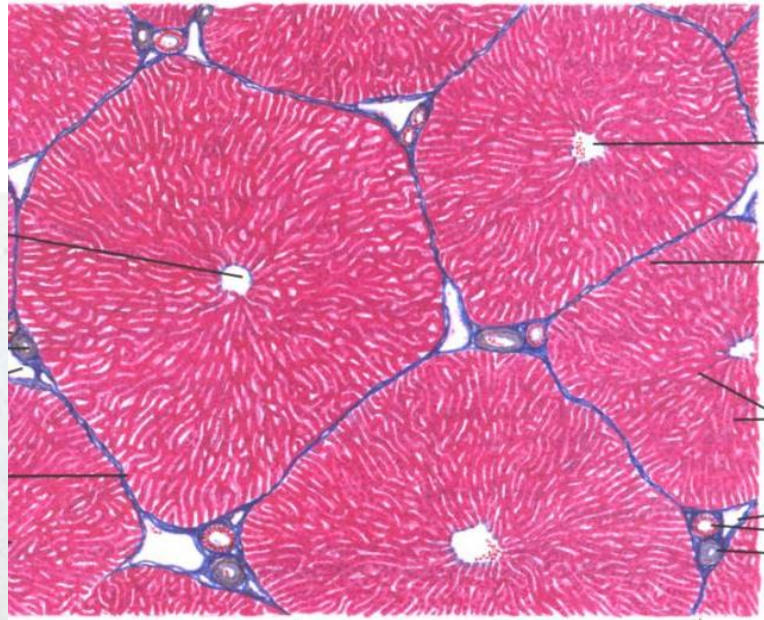
155

Branch of portal vein,

Branch of hepatic artery

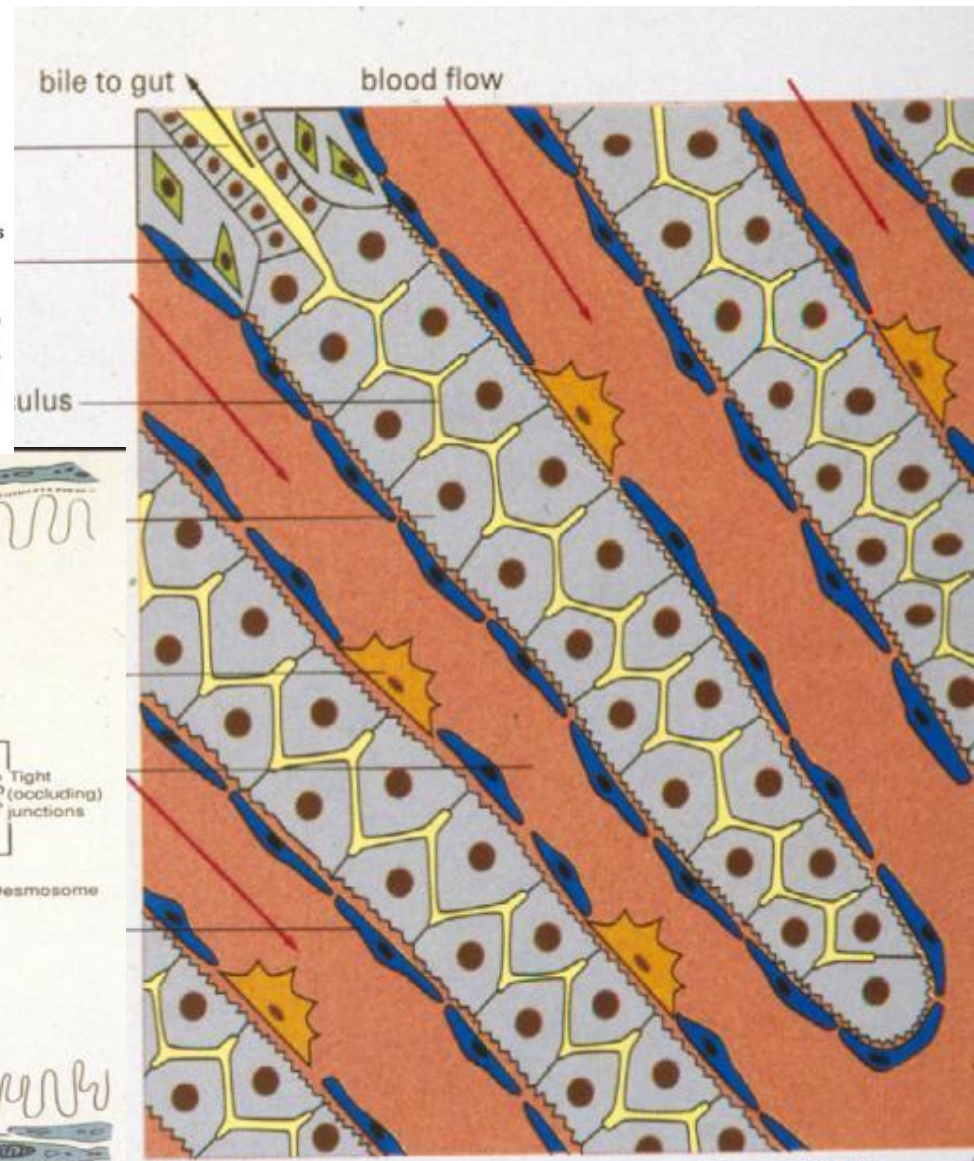
Lymphatic vessel (usually)





- 8 Central vein
- 9 Interlobular septum
- 10 Hepatic sinusoids
- Interlobular branches of:
 - 11 Portal vein
 - 12 Bile duct
 - 13 Hepatic artery

Portal area



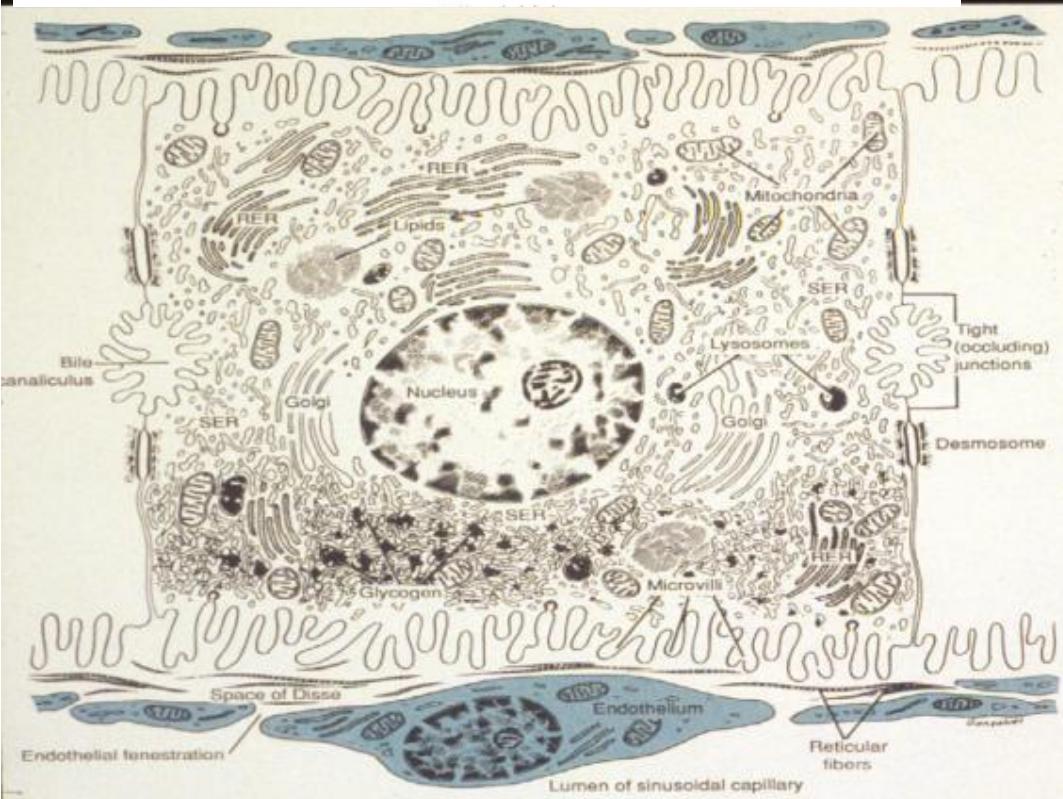
bile to gut blood flow

ulus

Tight (occluding) junctions

Desmosome

50 μm



Bile canaliculus

Endothelial fenestration

Space of Disse

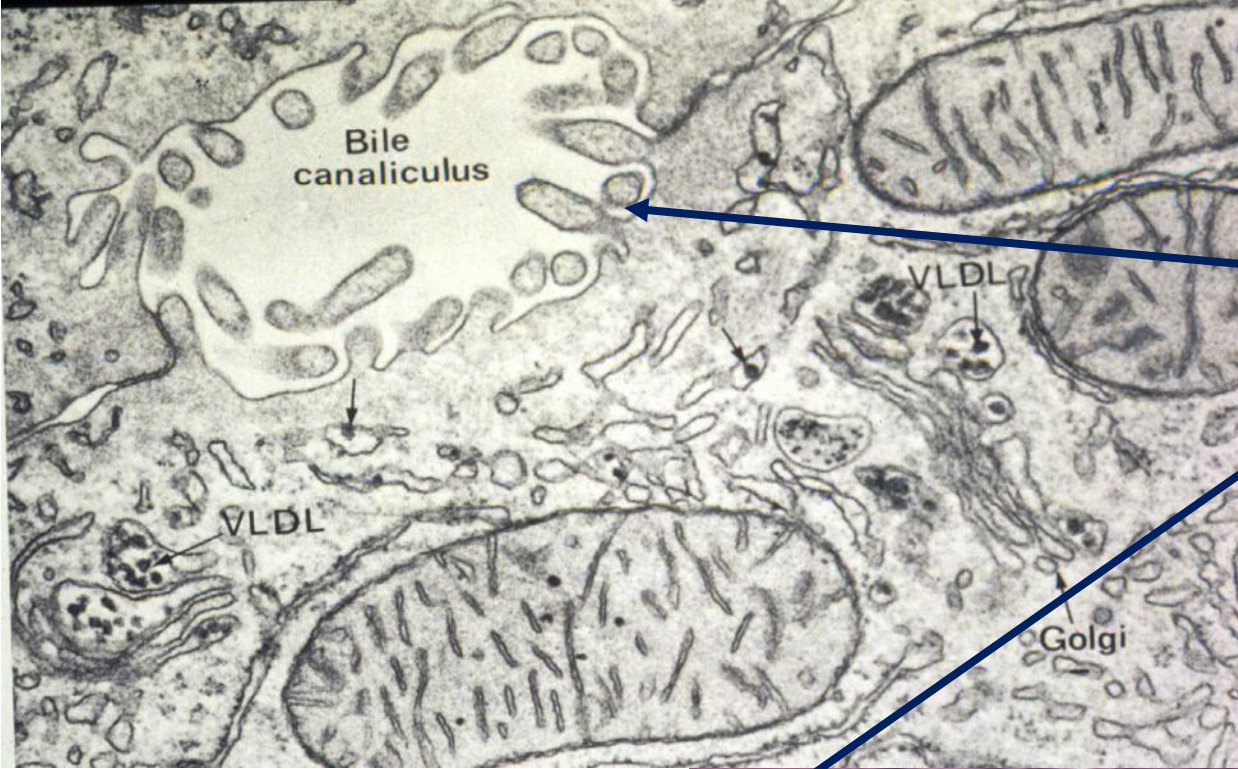
Endothelium

Lumen of sinusoidal capillary

Reticular fibers

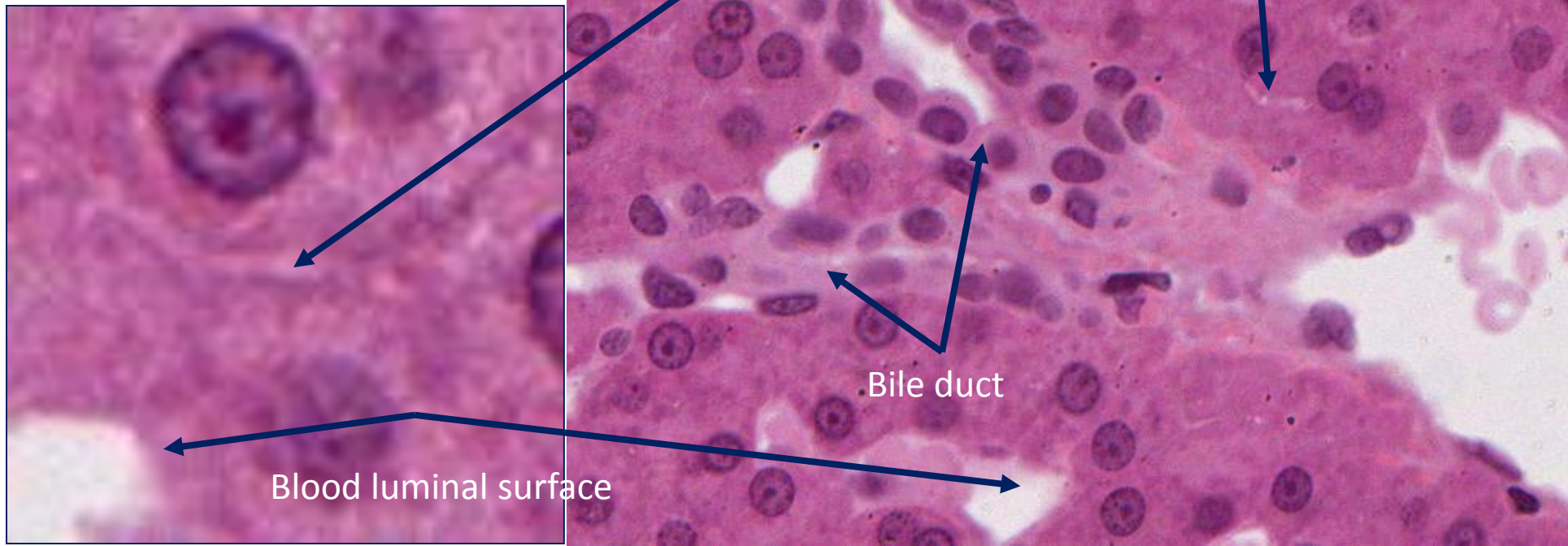
(B)

Bile Canaliculi

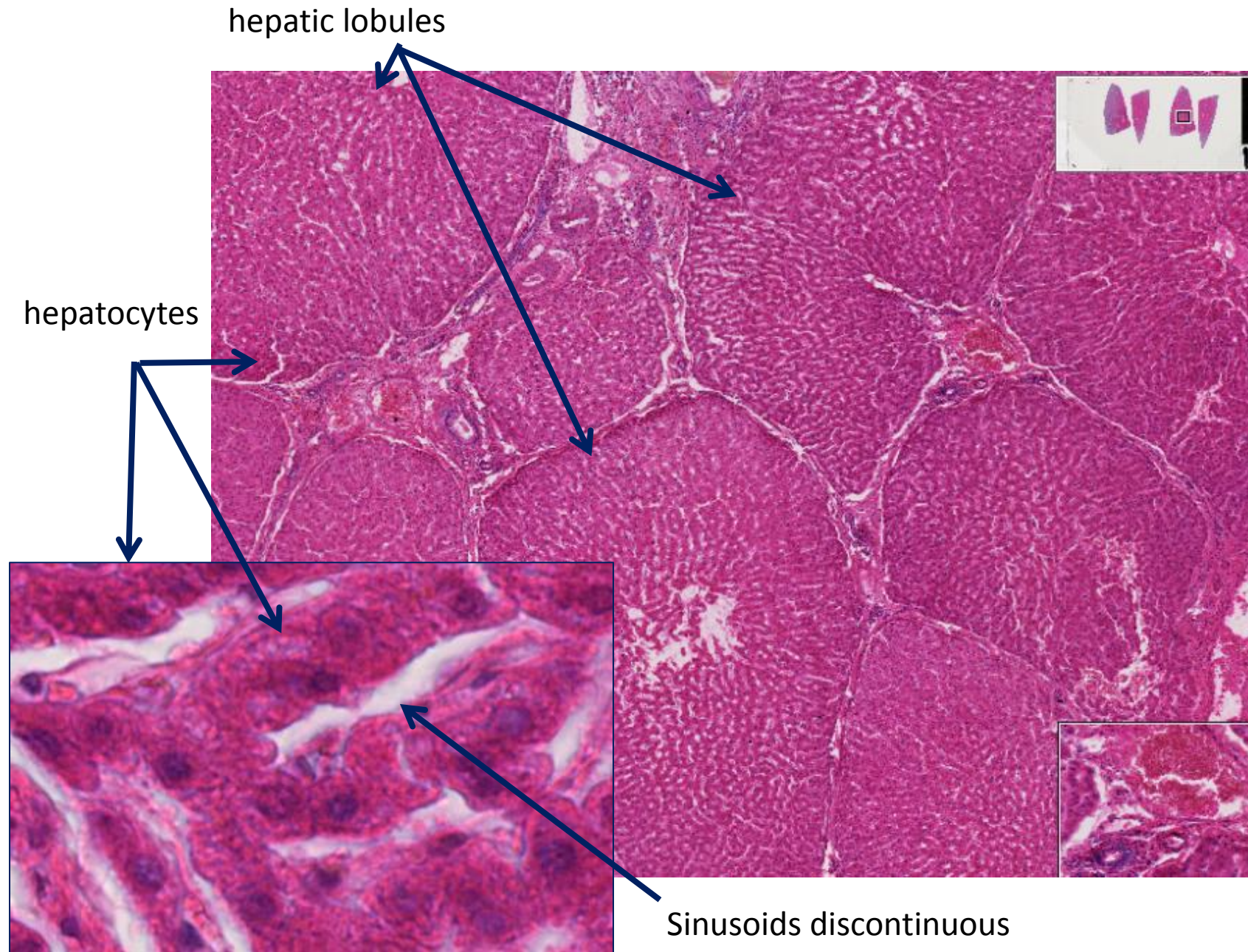


Bile luminal surfaces

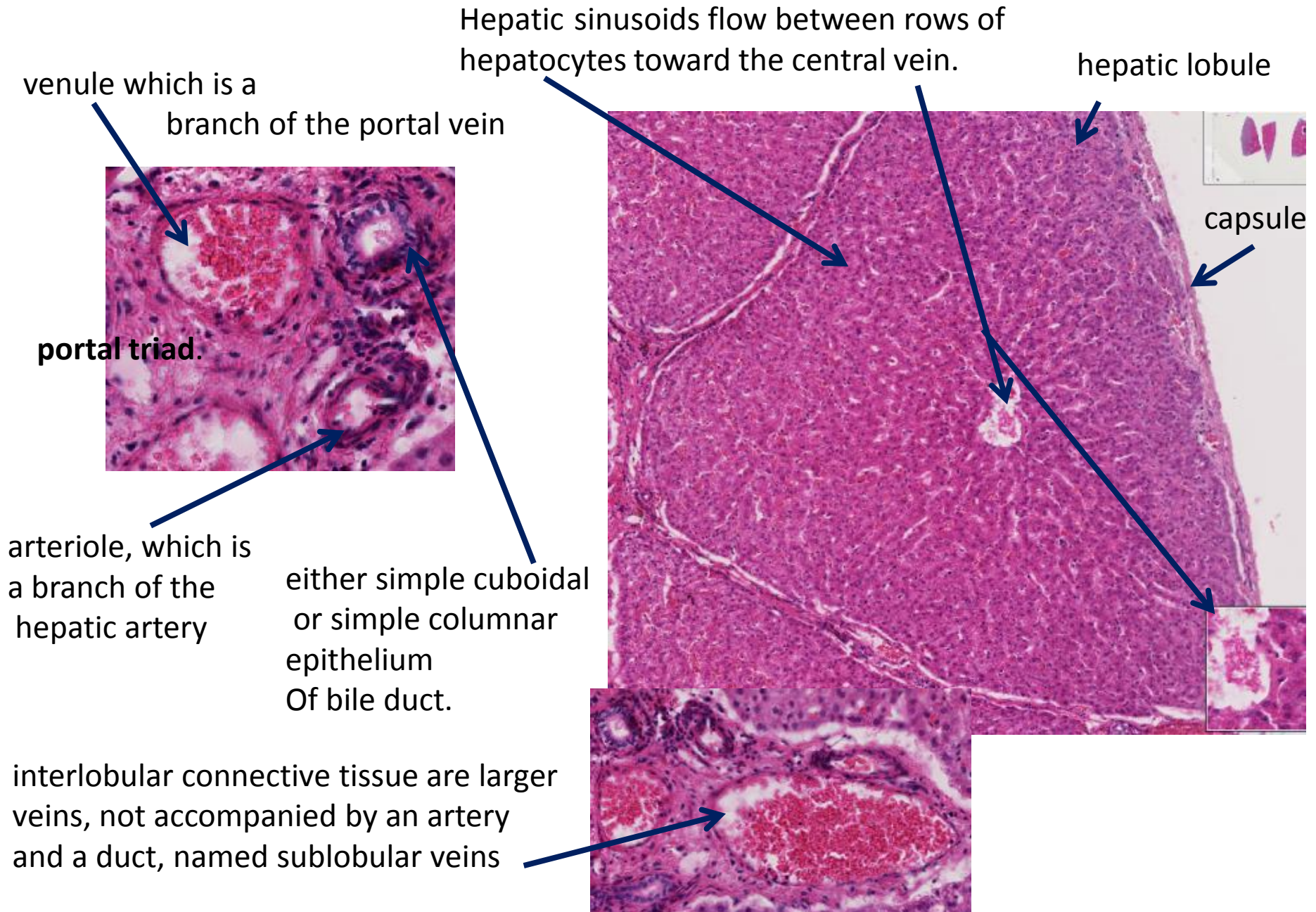
[155](#)



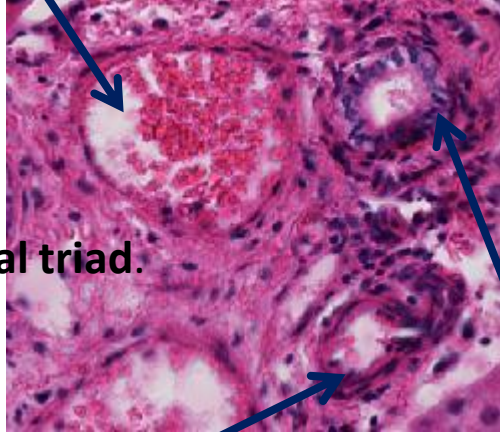
DEMO SLIDE BOX 169 (P001--H--84B) – Liver, pig.



DEMO SLIDE BOX 169 (P001--H--84B) – Liver, pig.



venule which is a branch of the portal vein



portal triad.

arteriole, which is a branch of the hepatic artery

either simple cuboidal or simple columnar epithelium Of bile duct.

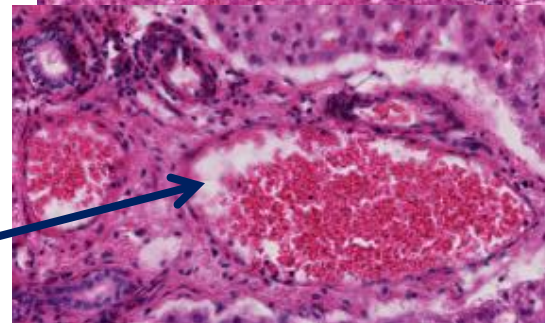
interlobular connective tissue are larger veins, not accompanied by an artery and a duct, named sublobular veins

Hepatic sinusoids flow between rows of hepatocytes toward the central vein.

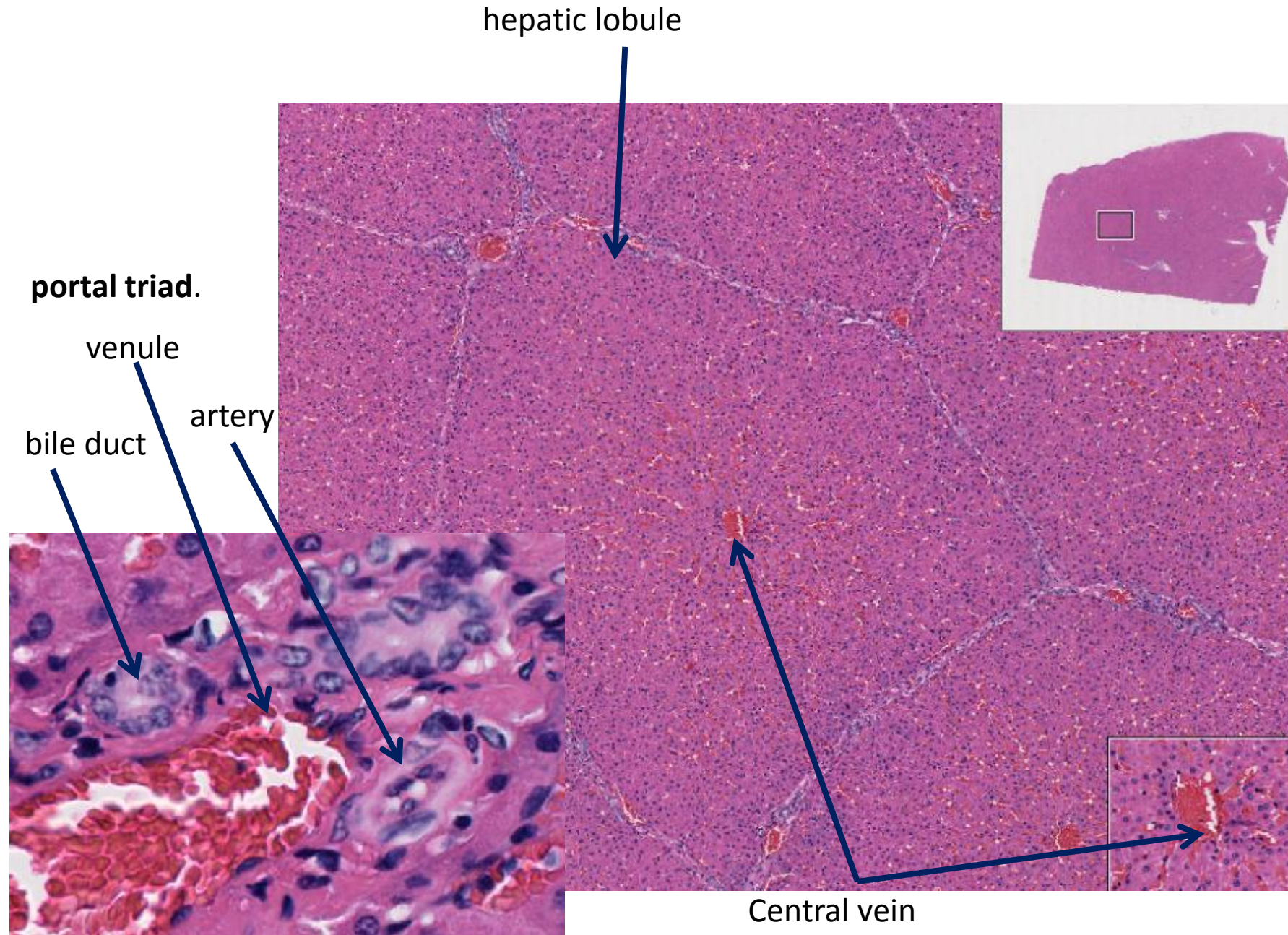
hepatic lobule



capsule

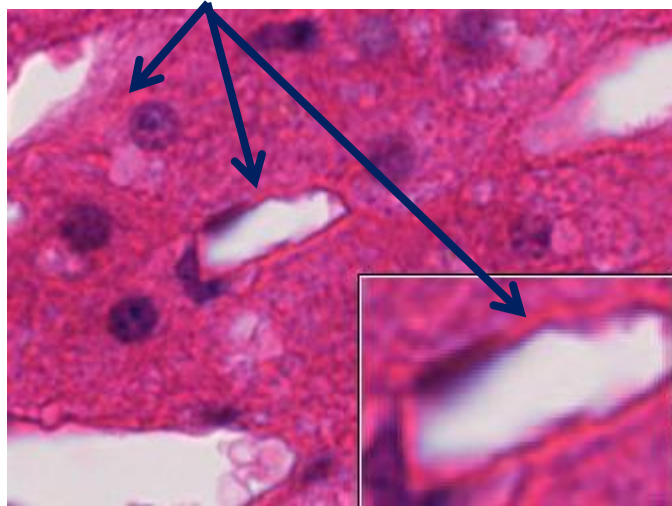


Slide #45 (Fig 1--87c). Liver, Pig.

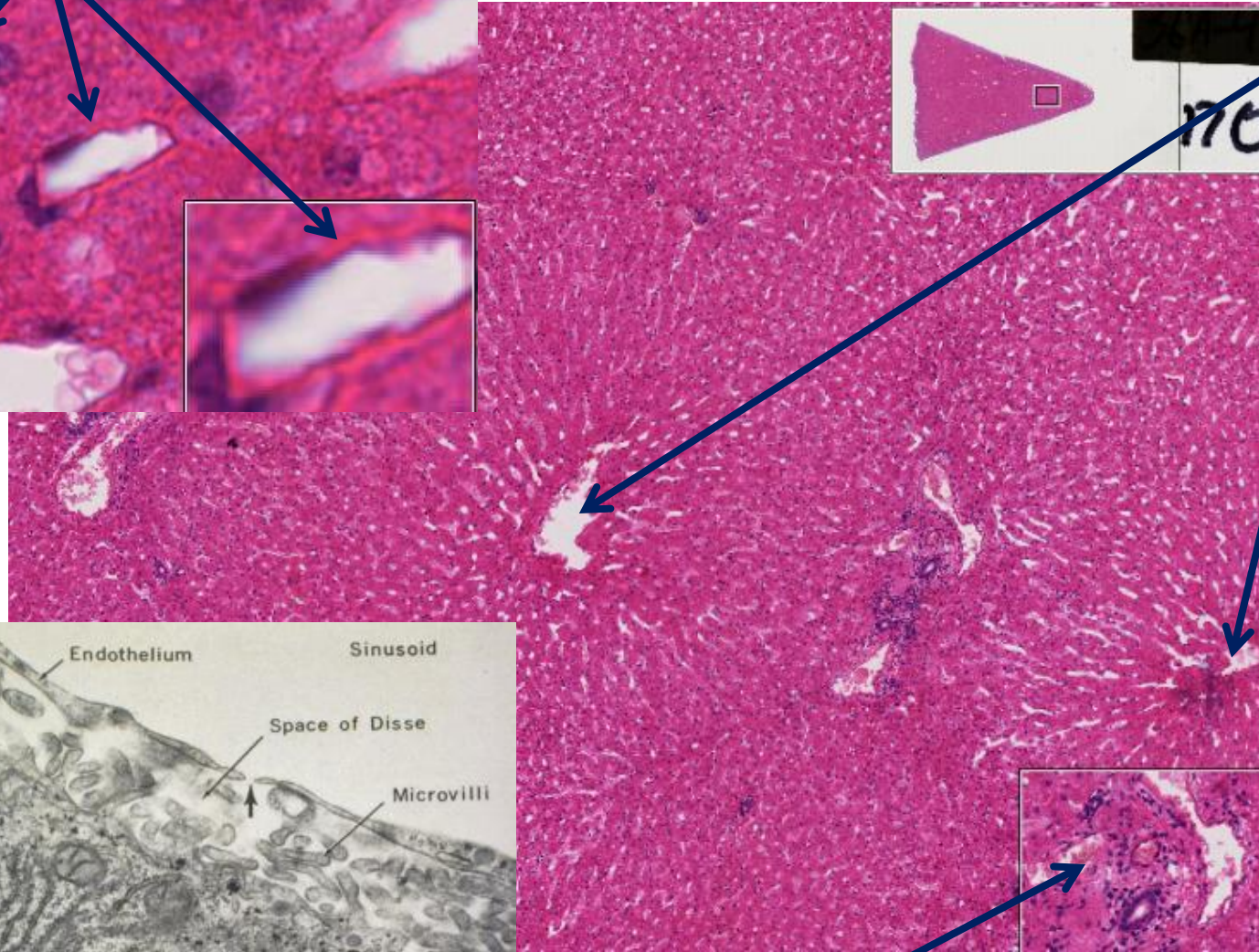


DEMO SLIDE BOX 170 (E3--H--84--1). Liver, horse.

Space of Disse



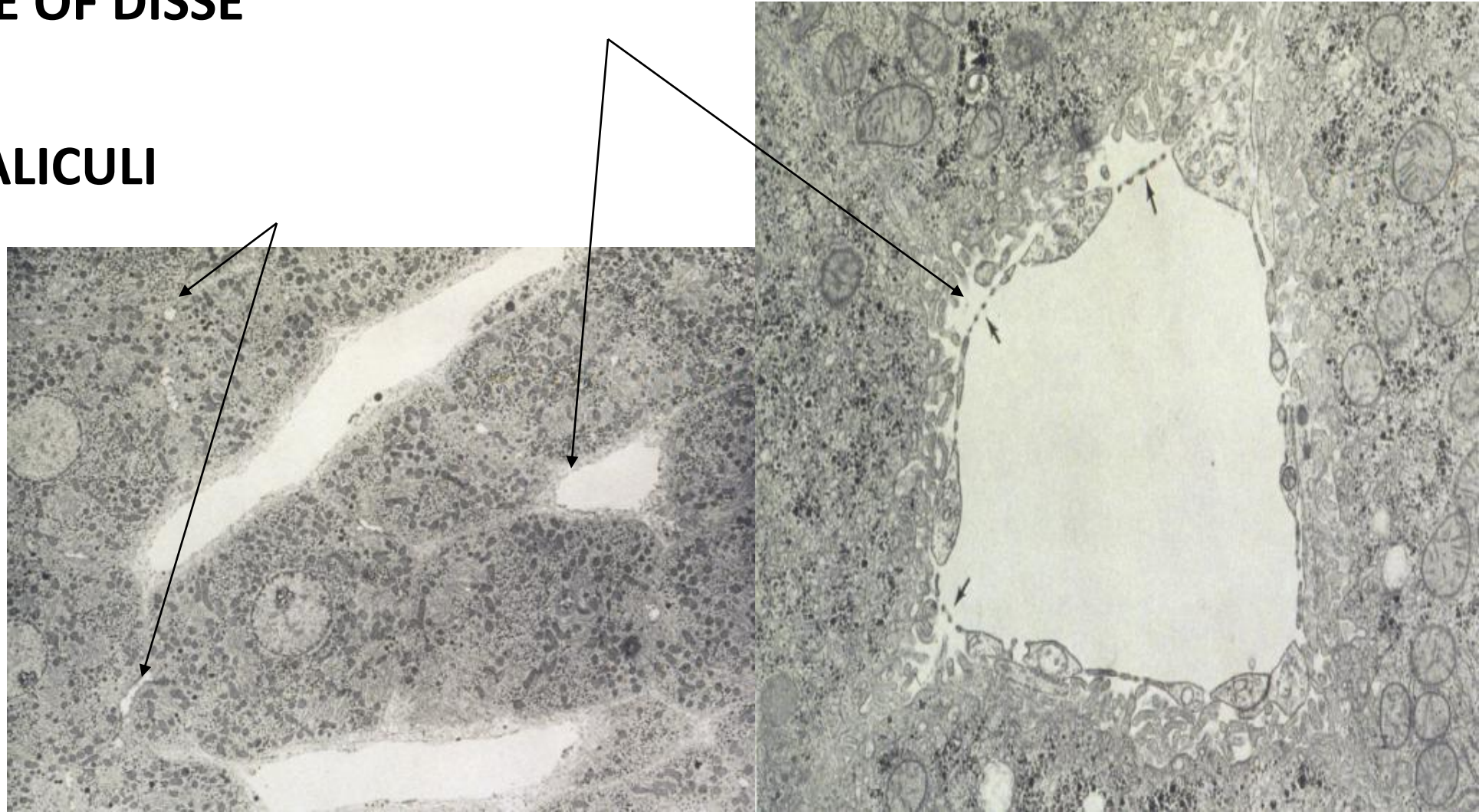
Hepatic sinusoids flow between rows of hepatocytes toward the central vein.



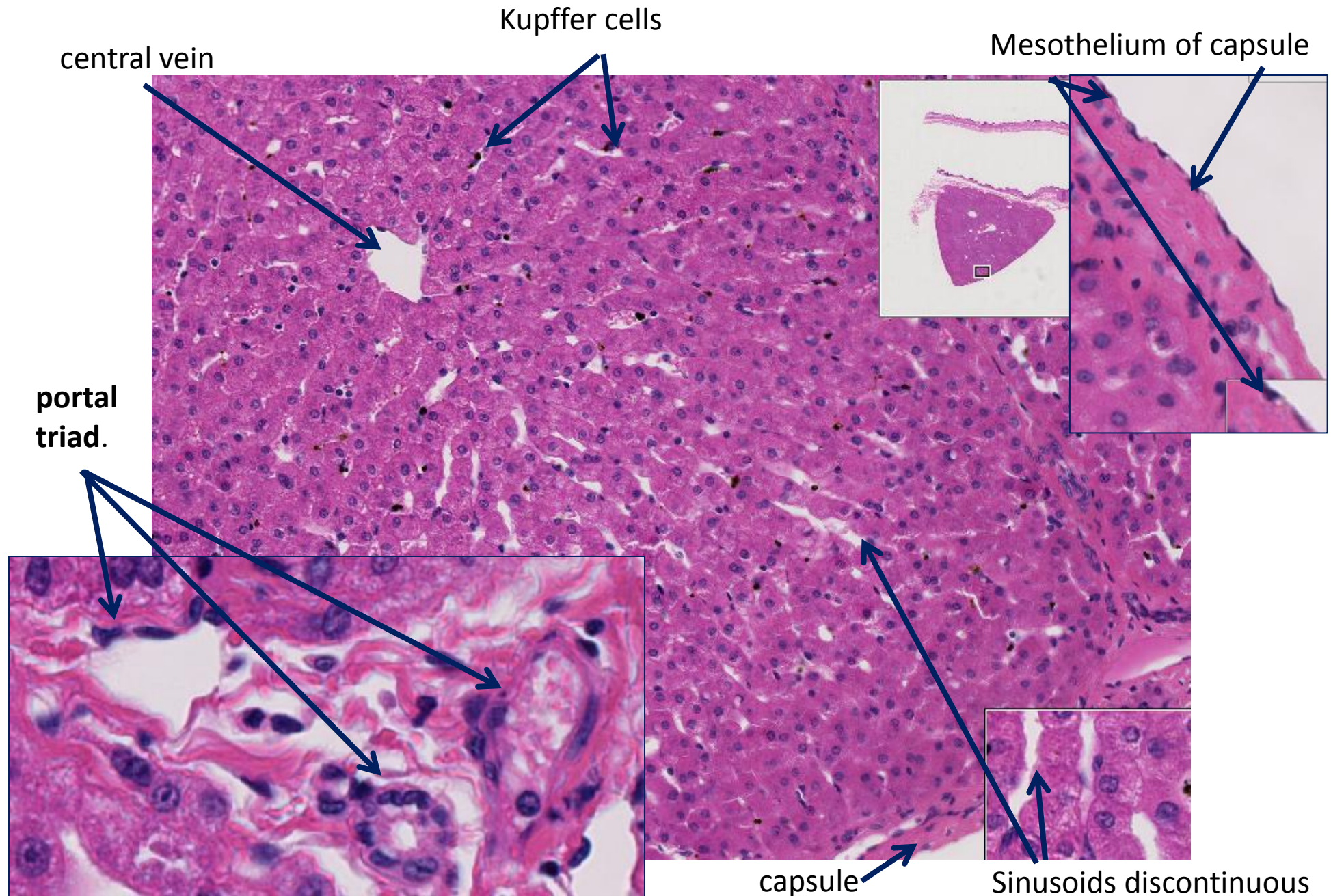
portal triad.

HEPATOCTYTE

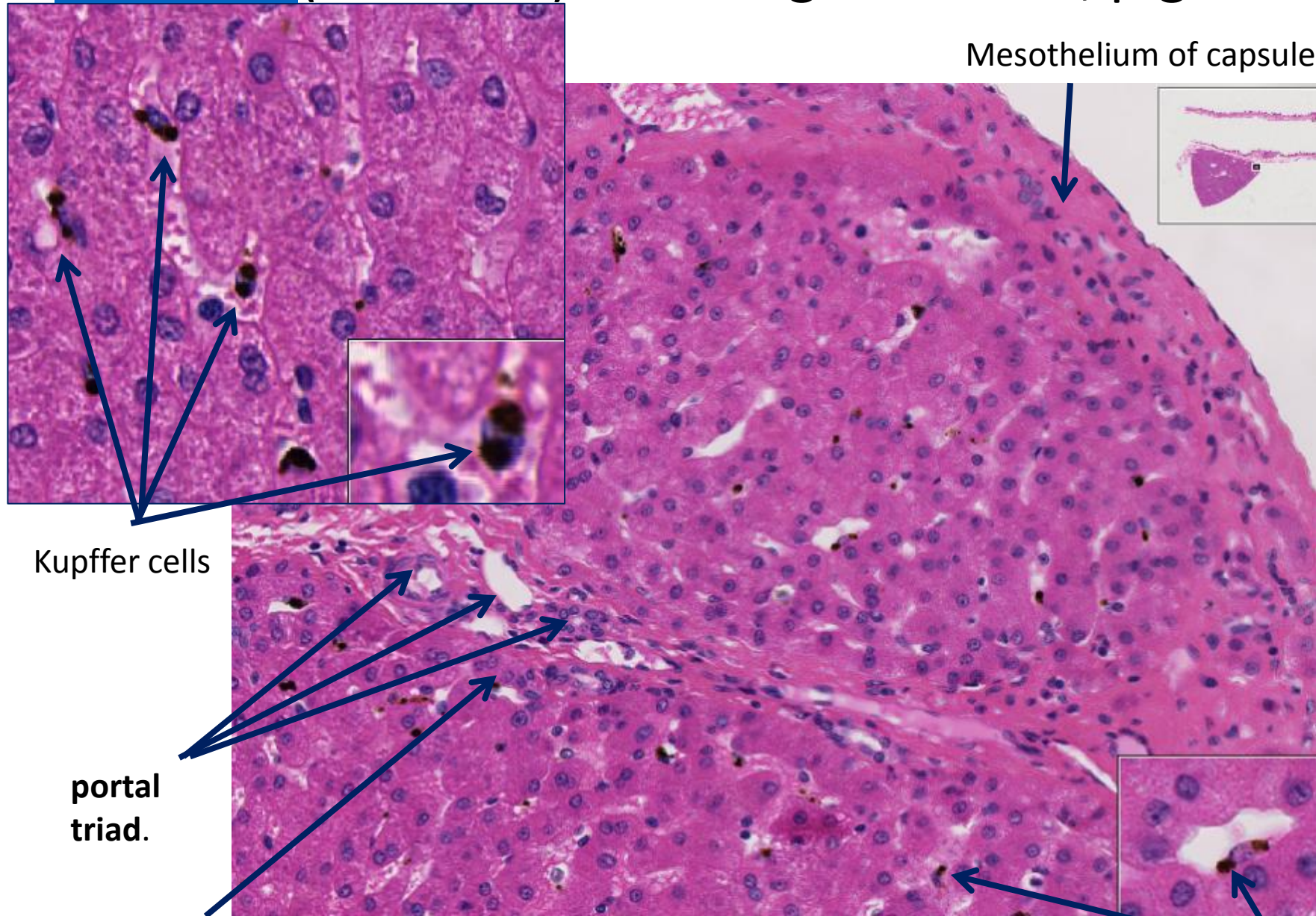
SPACE OF DISSE
BILE
CANALICULI



Slide #48 (PF5--76B). Liver & gall bladder, pig.



Slide #48 (PF5--76B). Liver & gall bladder, pig.



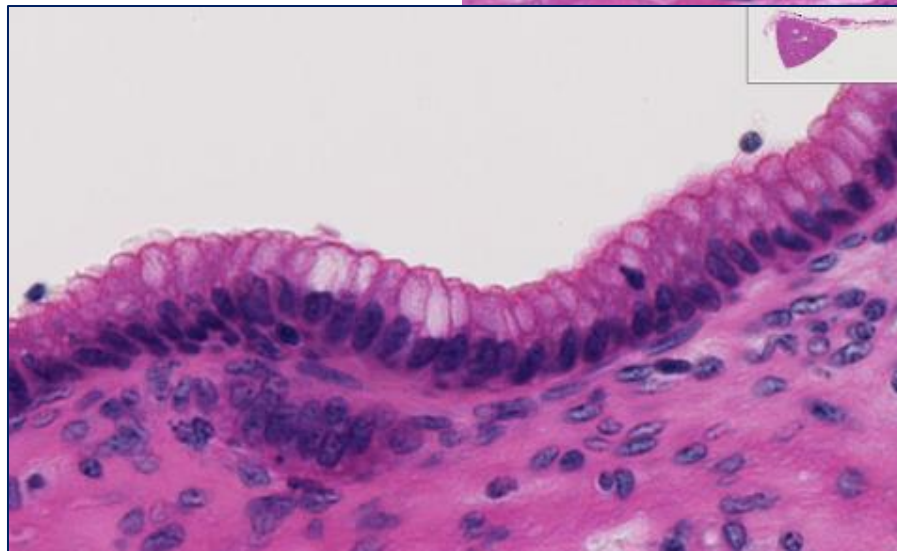
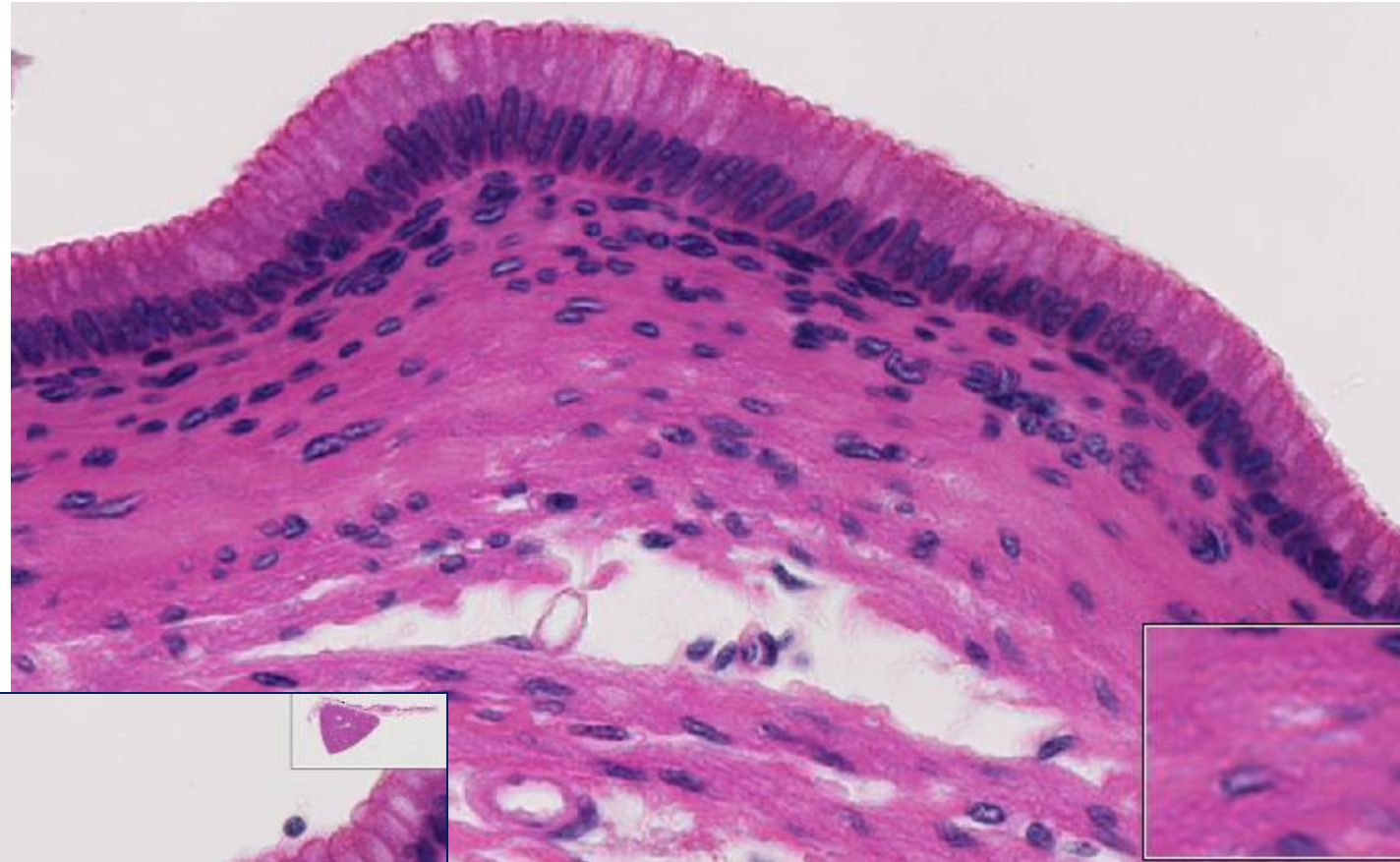
Kupffer cells (i.e. the liver macrophages lining the sinusoids) are noticeable because they ingested black

Kupffer cells

Slide #48 (PF5--76B). Liver & gall bladder, pig.

Microvilli occur apically but are difficult to see

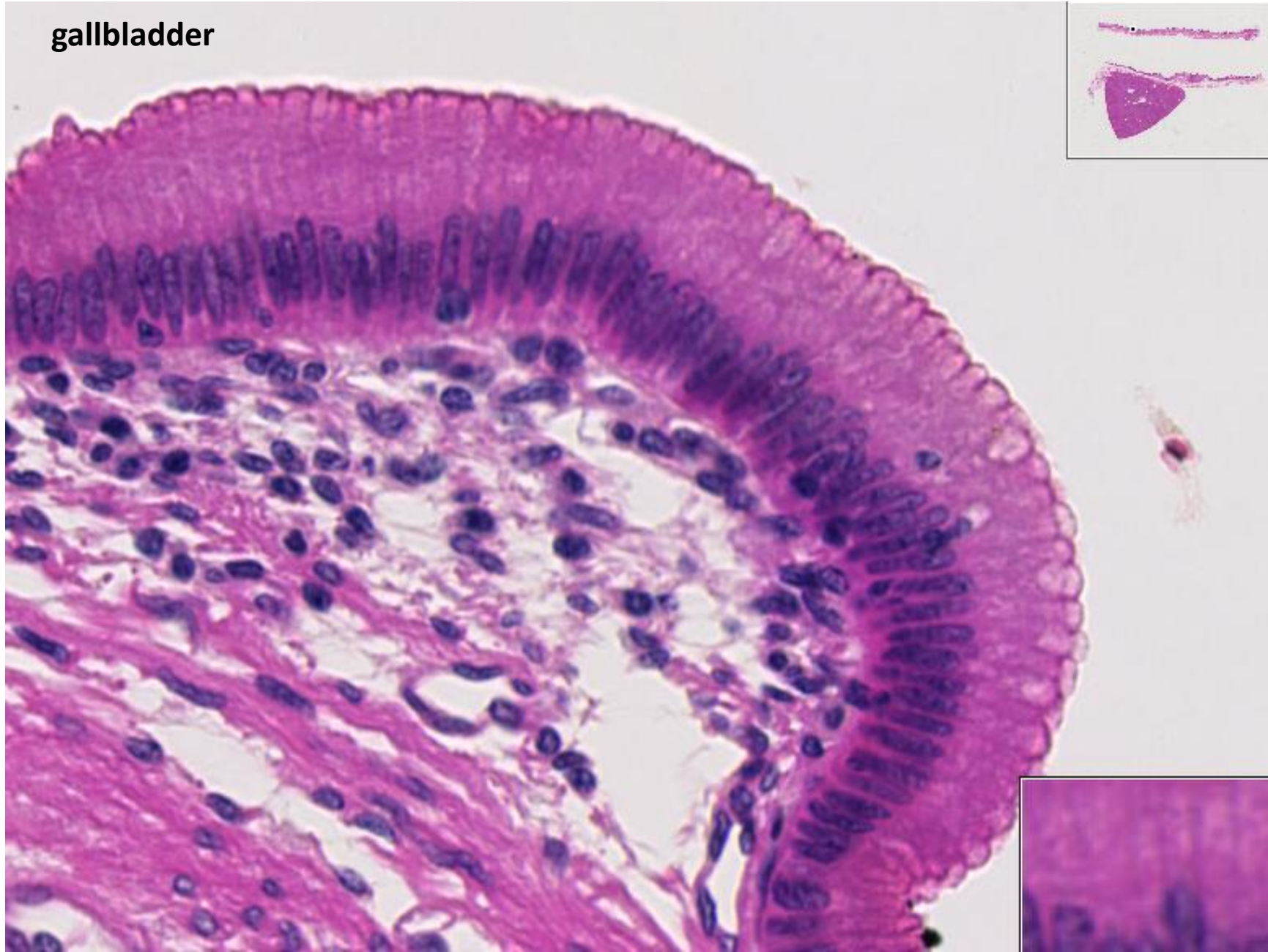
gallbladder



No muscularis mucosae occurs so the lamina propria blends with the submucosa. Note the tunica muscularis is not well organized. The thick layer of CCT outside the tunica muscularis is called the “perimuscular connective tissue” layer.

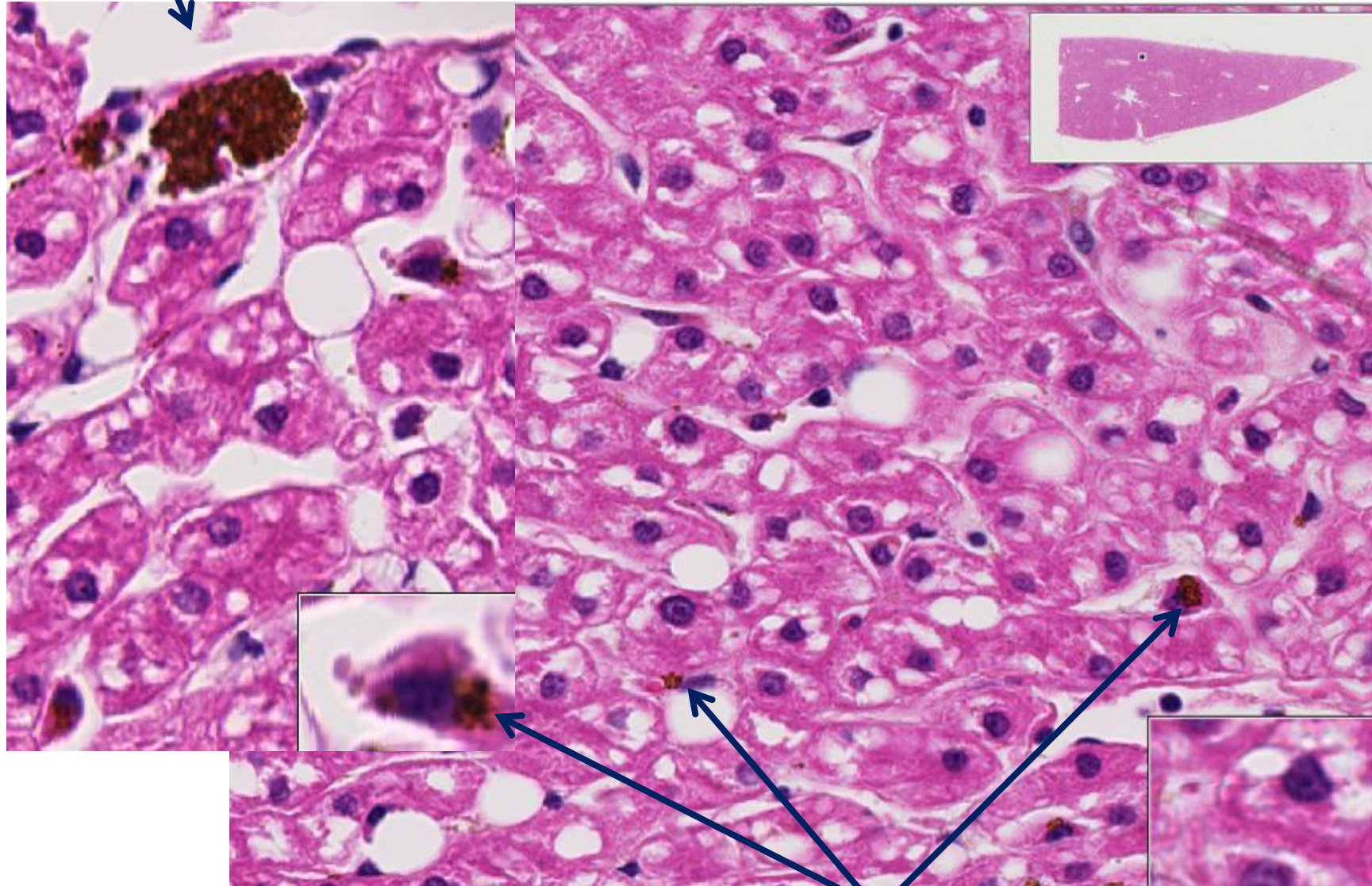
Slide #48 (PF5--76B). Liver & gall bladder, pig.

gallbladder



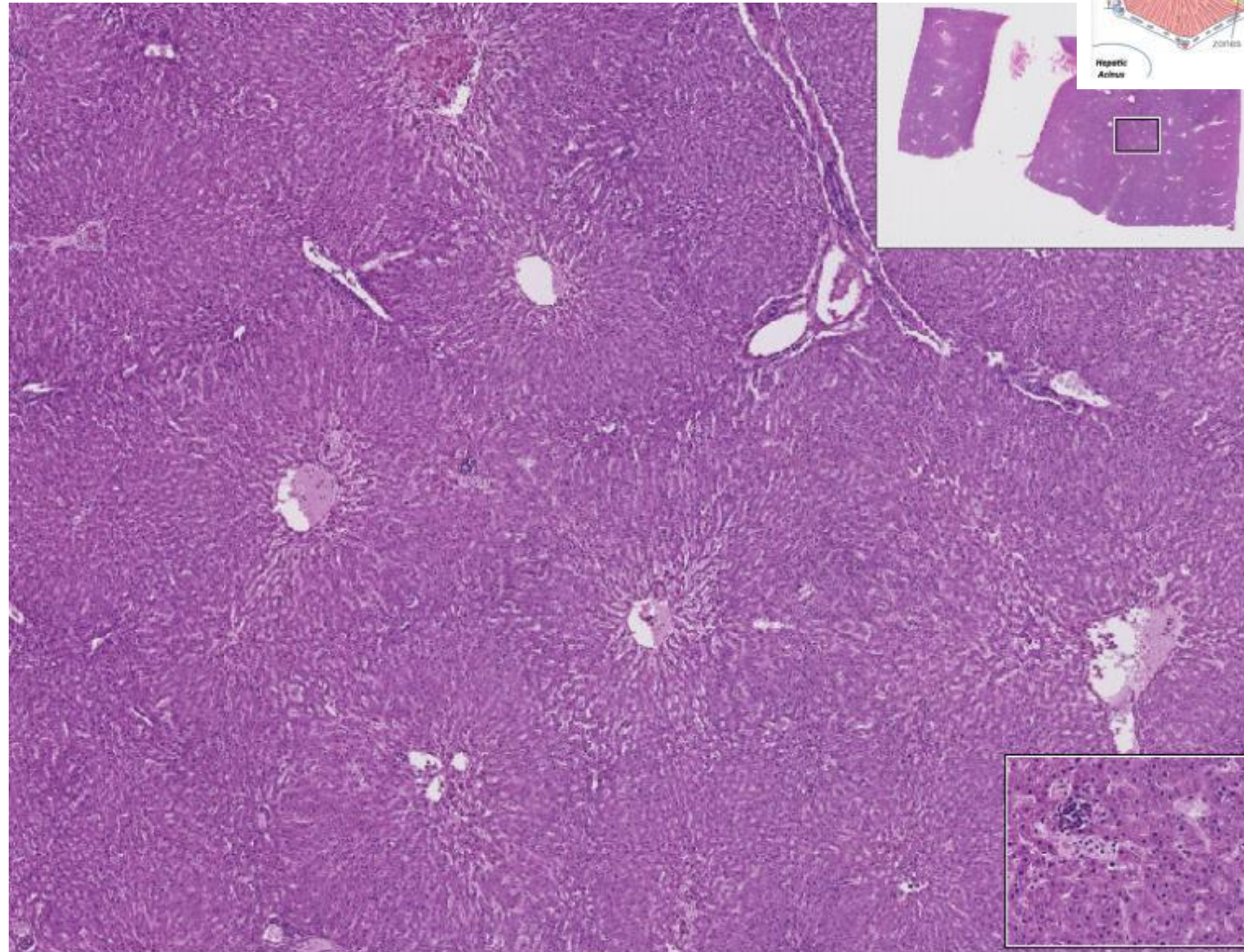
Slide #167 (M--1 87F). Liver, monkey

Central vein

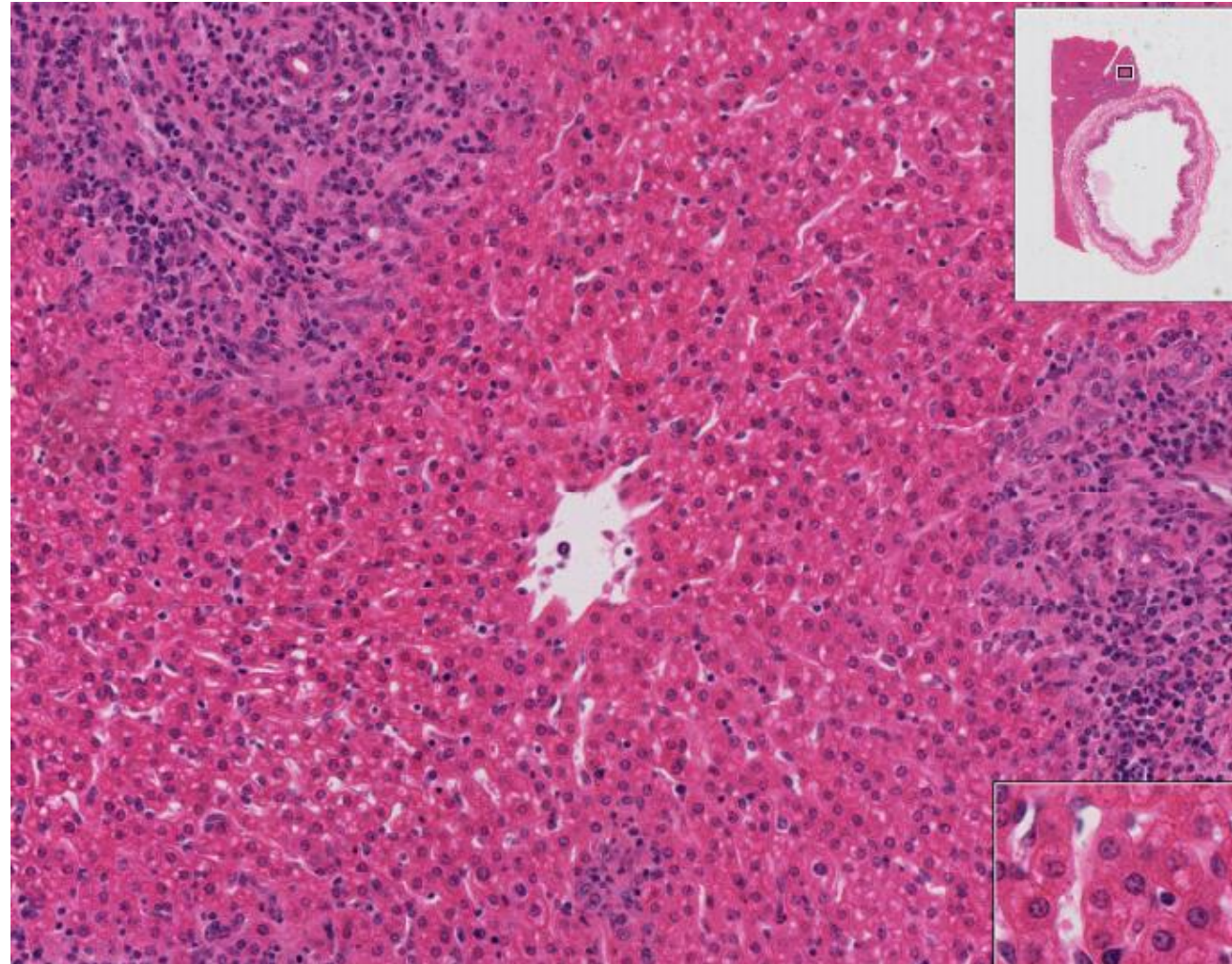


Kupfer cells

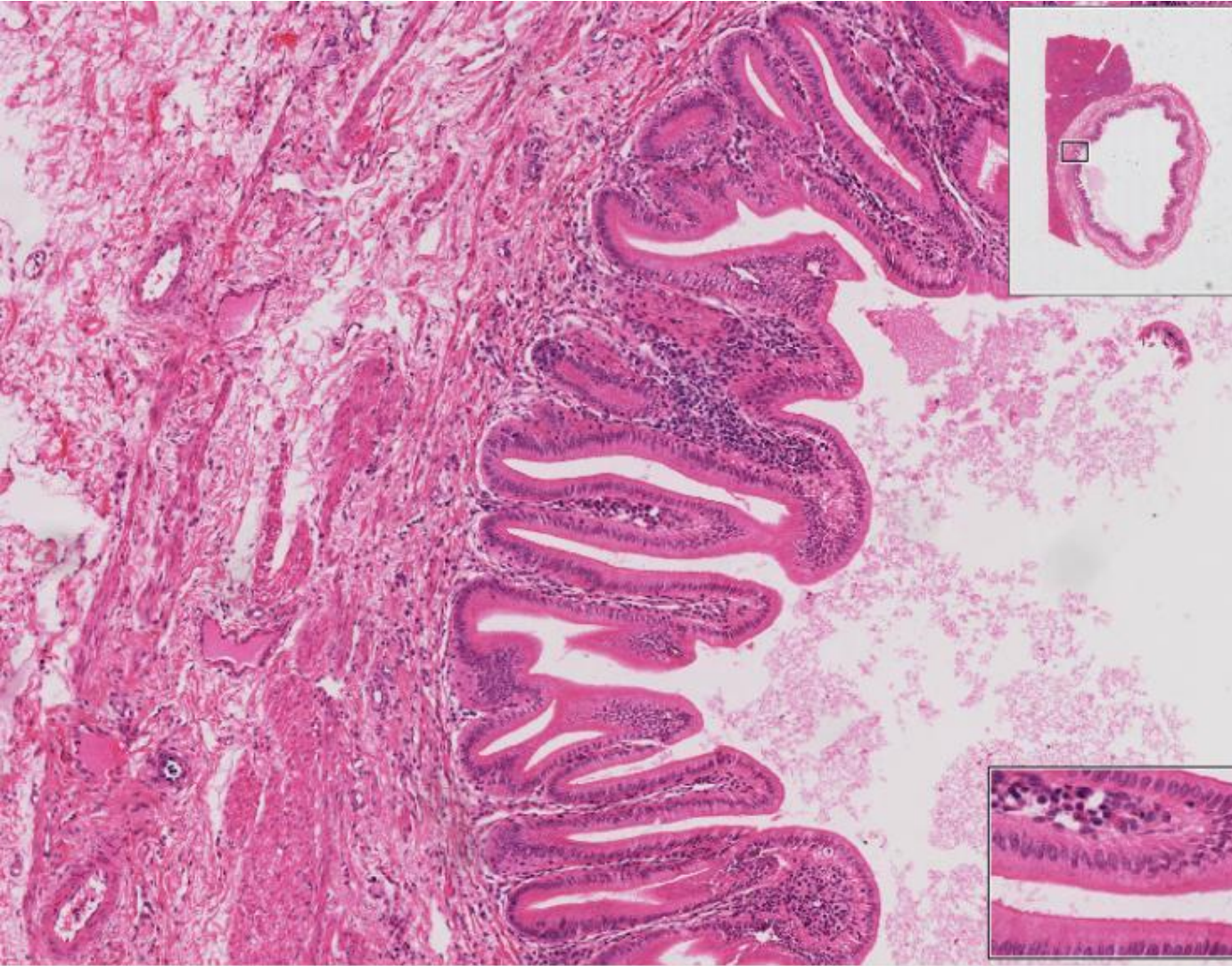
Slide #111 (87NG)—Liver, goat



Slide #117 (SP--1--61) -- Liver and gallbladder, sheep.



Slide #117 (SP--1--61) -- Liver and gallbladder, sheep.



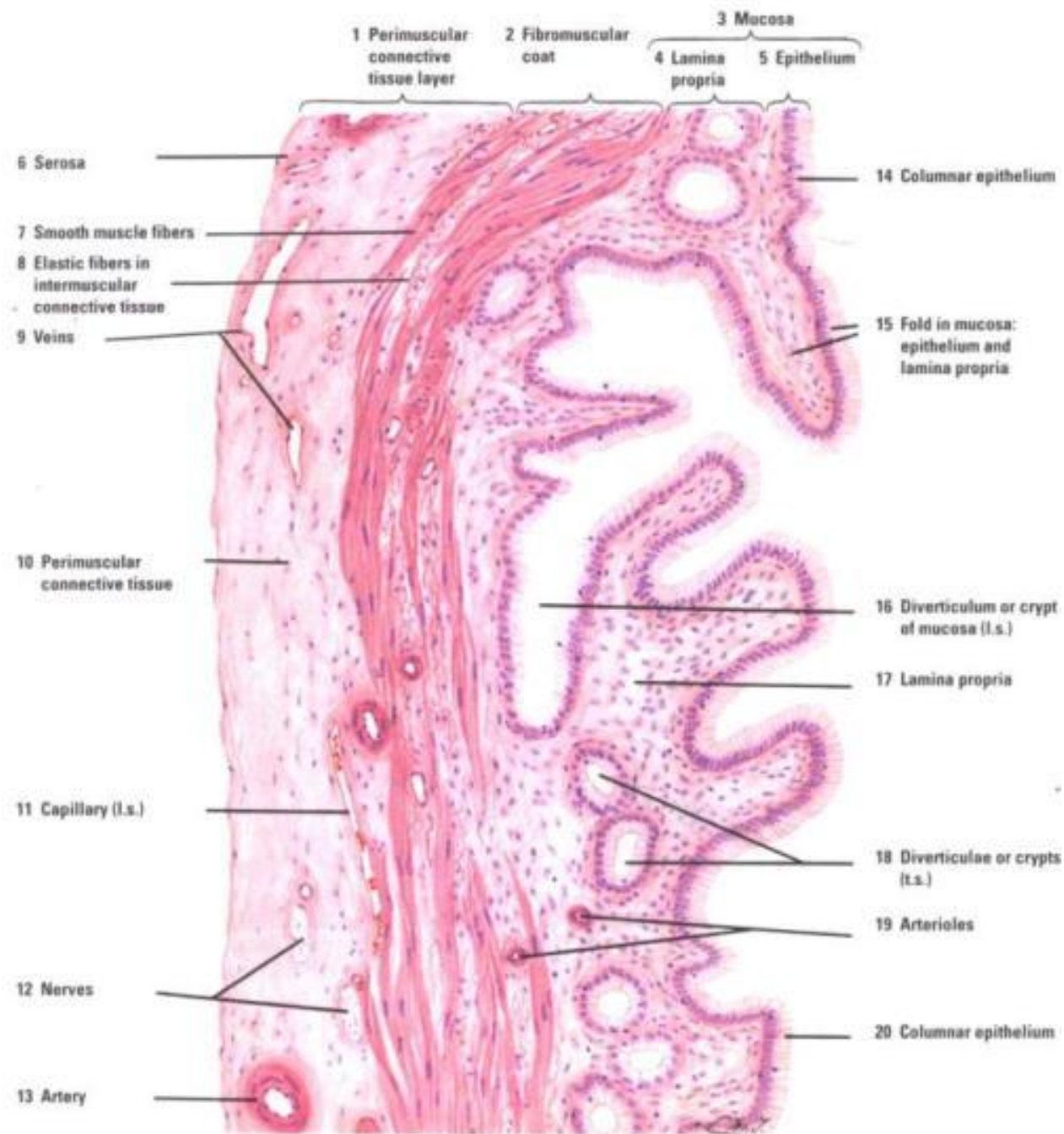
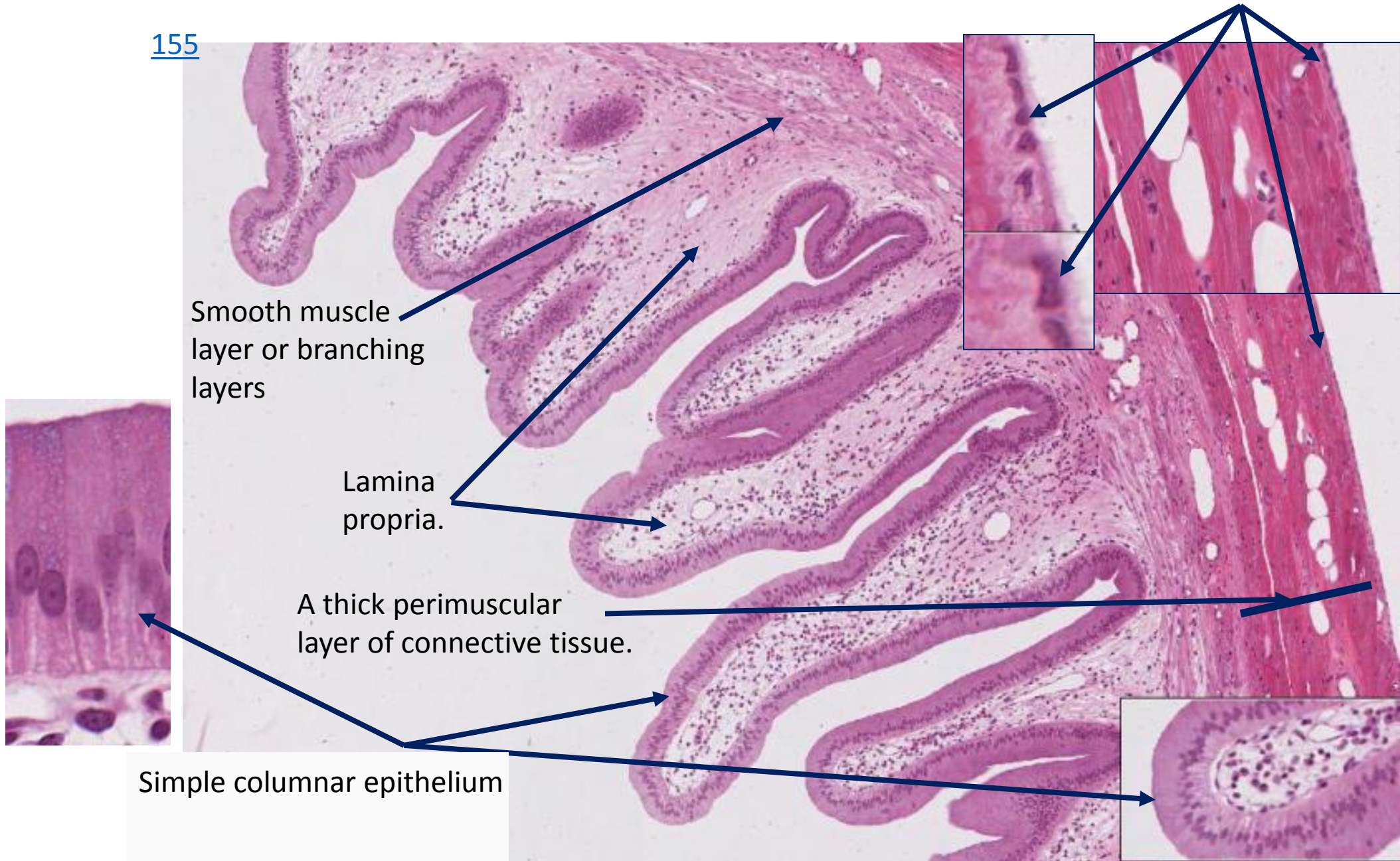


Fig. 12.9. Colon (panoramic view). Stain: hematoxylin-eosin. Medium magnification.

Gallbladder

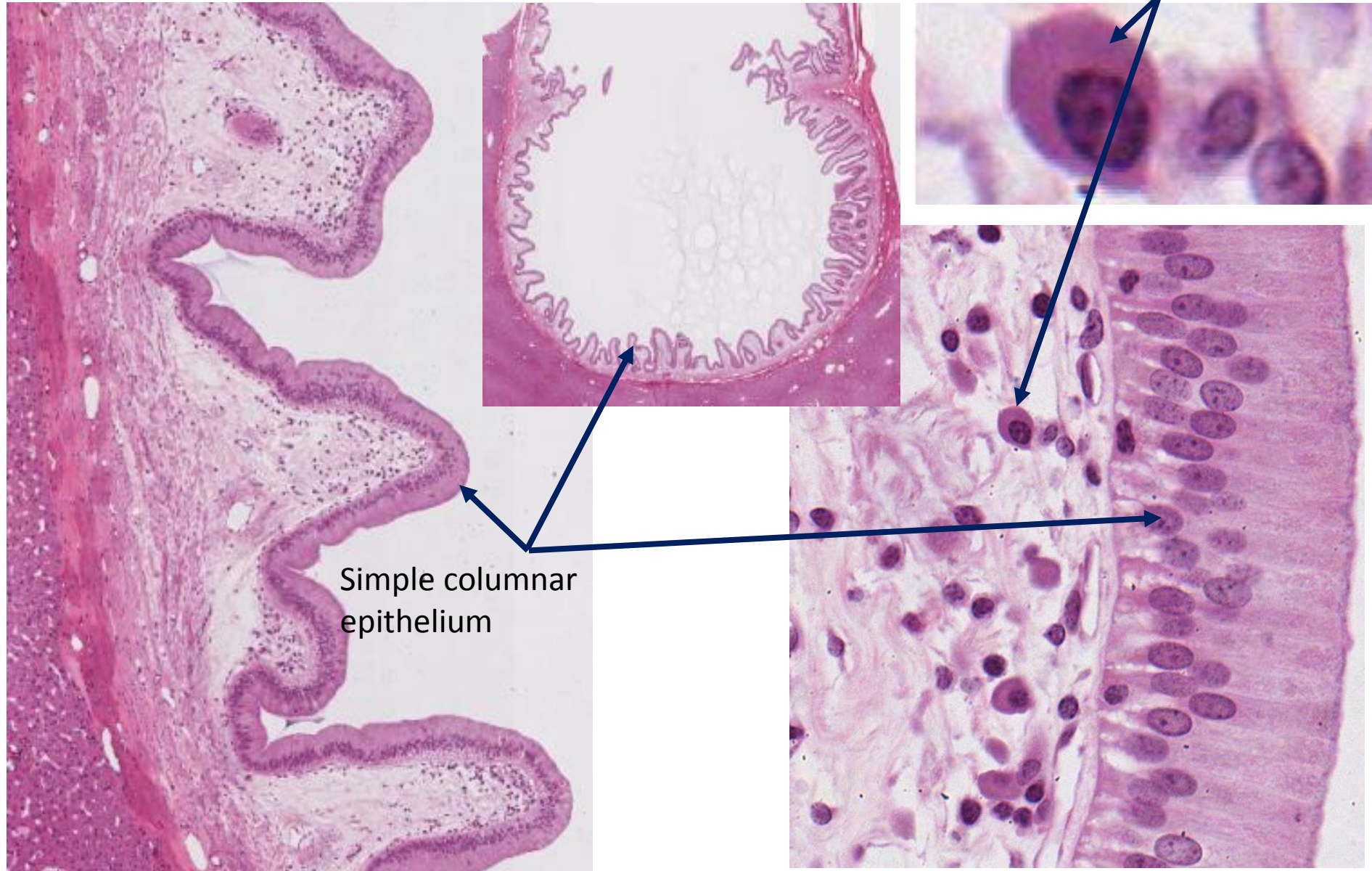
155



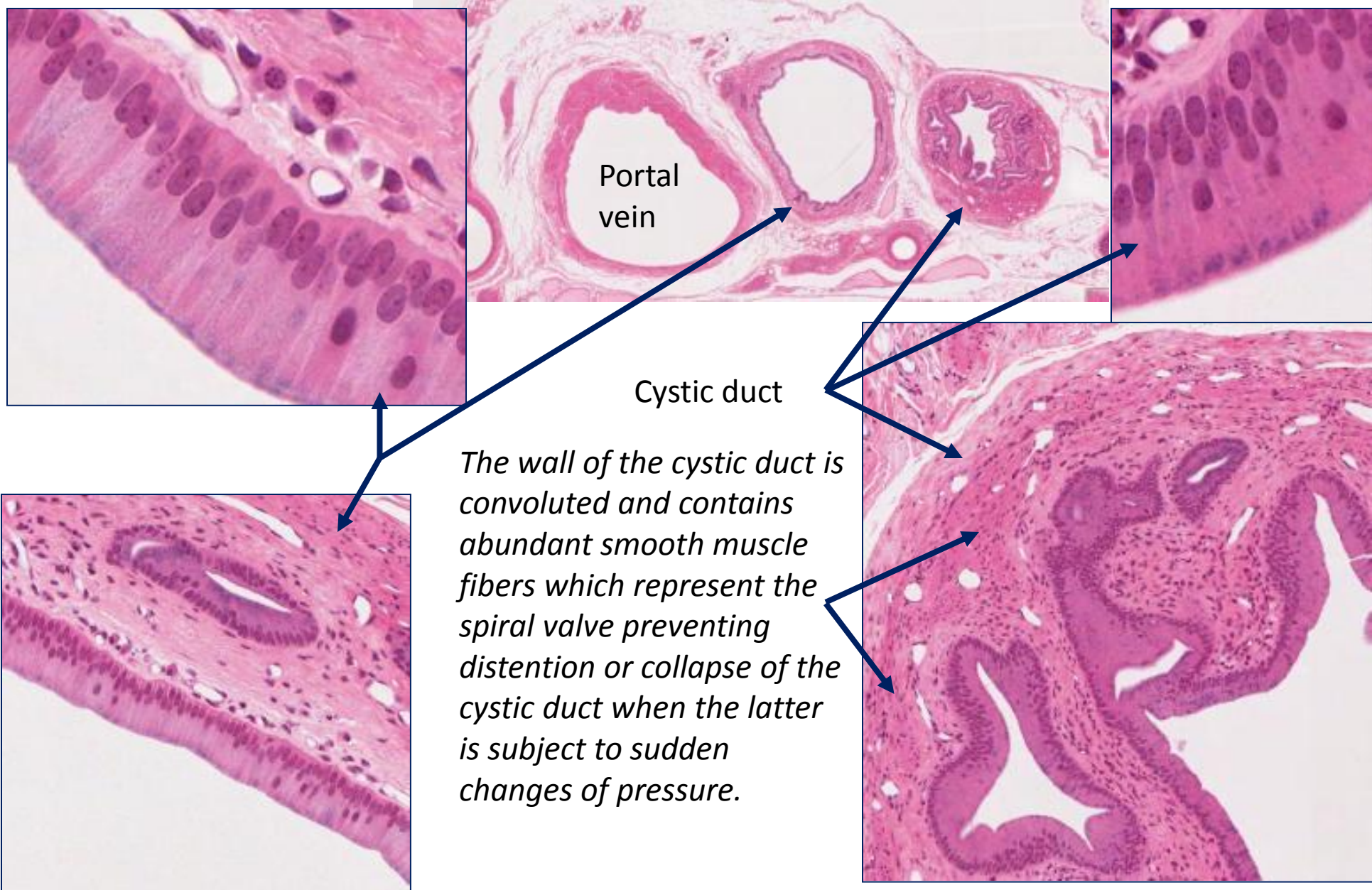
The gallbladder stores and concentrates the bile elaborated by the liver

Mucosa

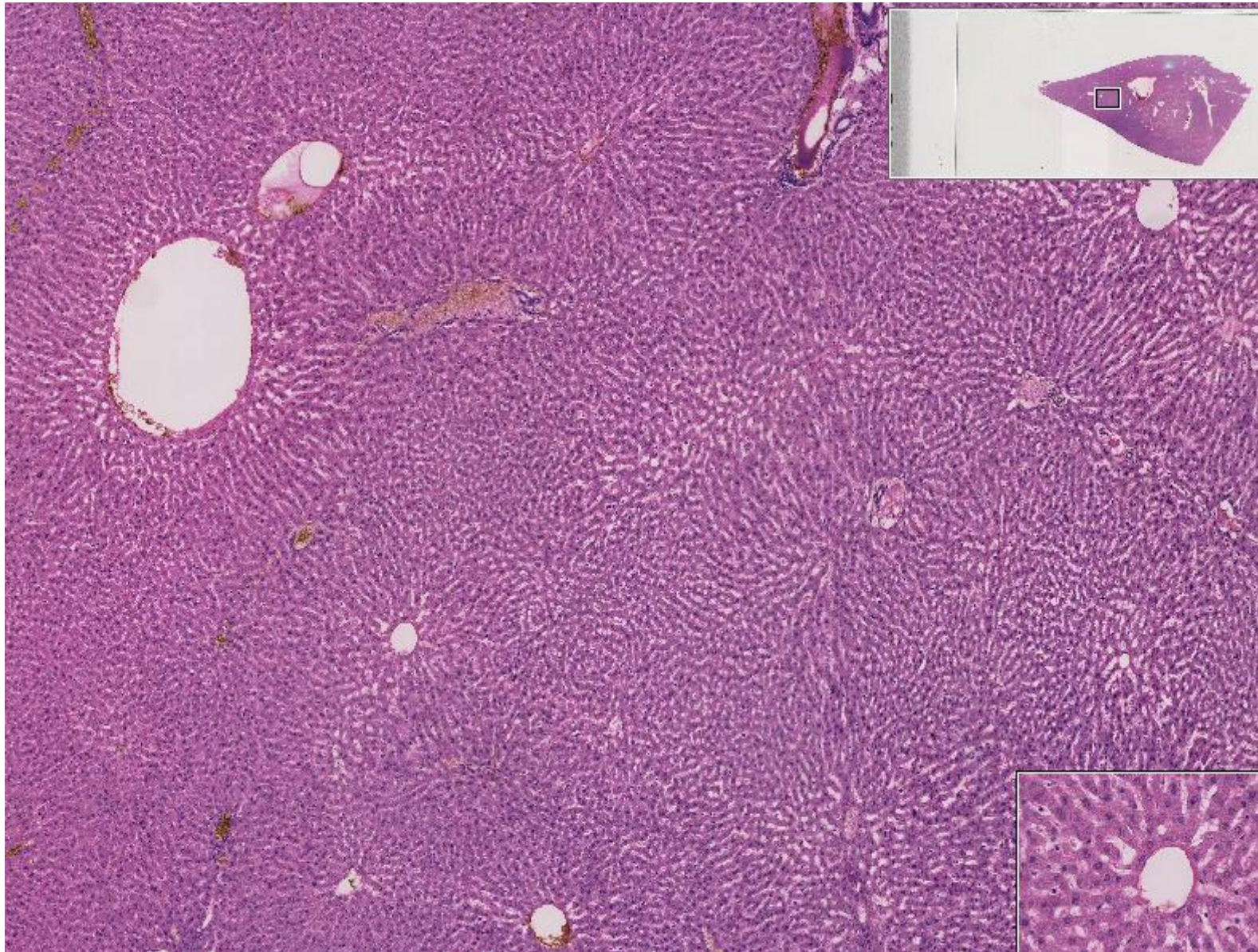
Plasma cells
In the lamina propria



126 Bile duct with portal vein, monkey



Slide # 94 (Rbt--87G)—Liver, rabbit.



DEMO SLIDE BOX 58 -- Liver and gallbladder, dog.

