

Glands of the Digestive System

The Liver (Hepar)

General Structure and Blood Supply

Capsule

Porta hepatis

Hepatic artery

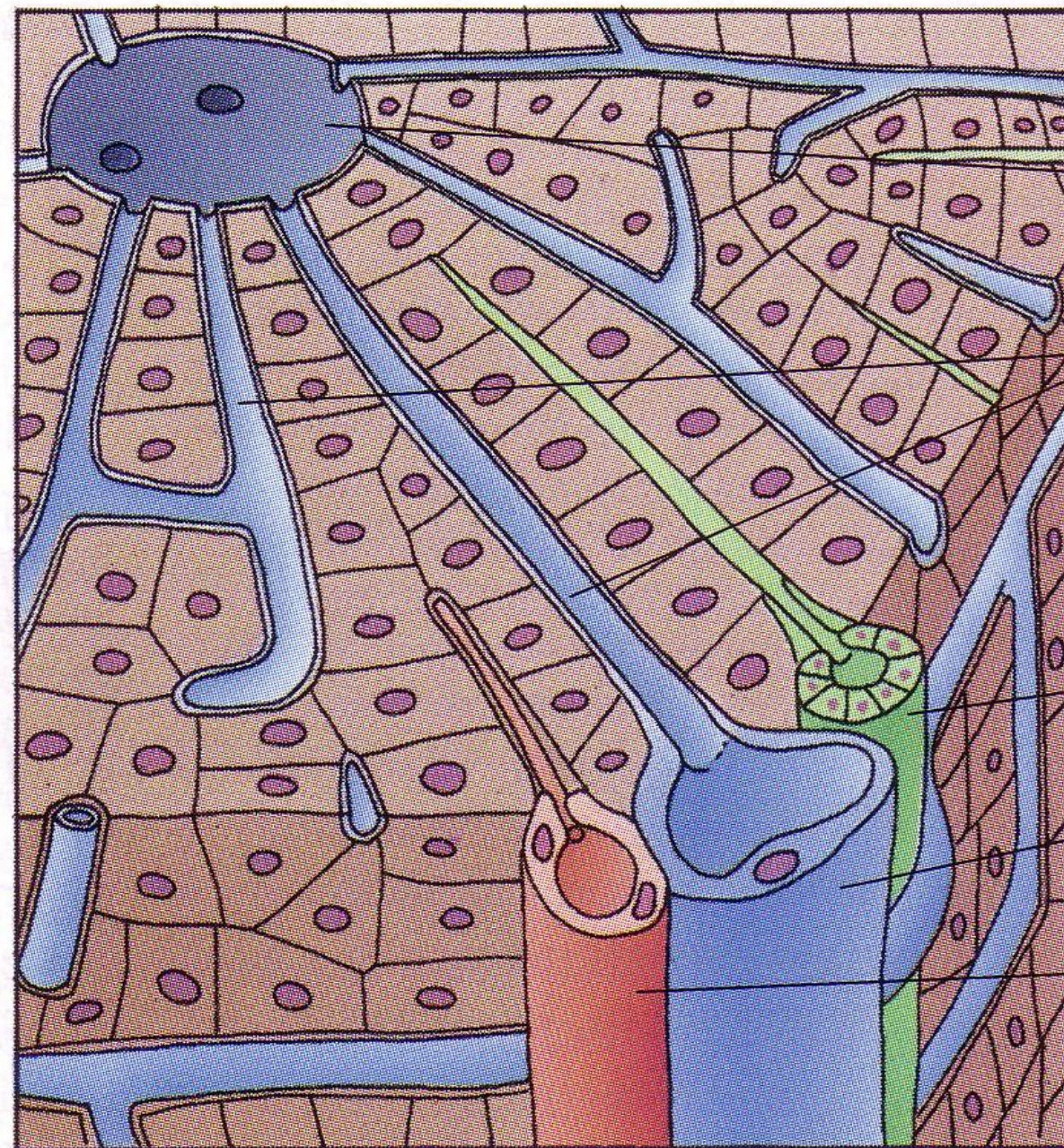
Portal vein

Common hepatic duct

Branches of the Hepatic Artery Proper and the Portal Vein

Right and left hepatic branches → segmental arteries → lobular arteries → distributing arterioles → inlet arterioles.

Right and left portal branches → segmental veins → distributing veins → inlet veins → sinusoids → central vein → sublobular veins → collecting veins → hepatic veins → inferior vena cava.



Central vein

Sinusoids

Bile duct

Portal vein

Hepatic artery

Portal triad

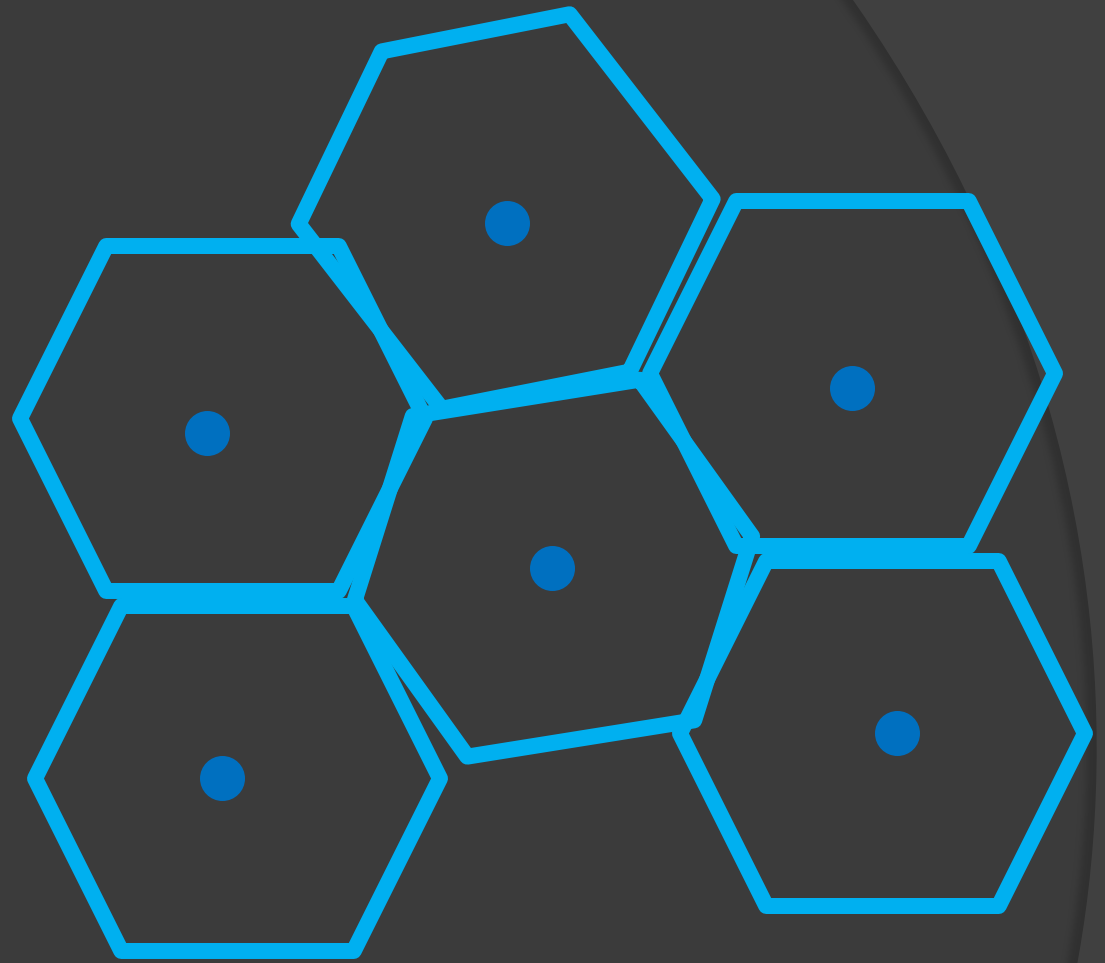
Liver lobules



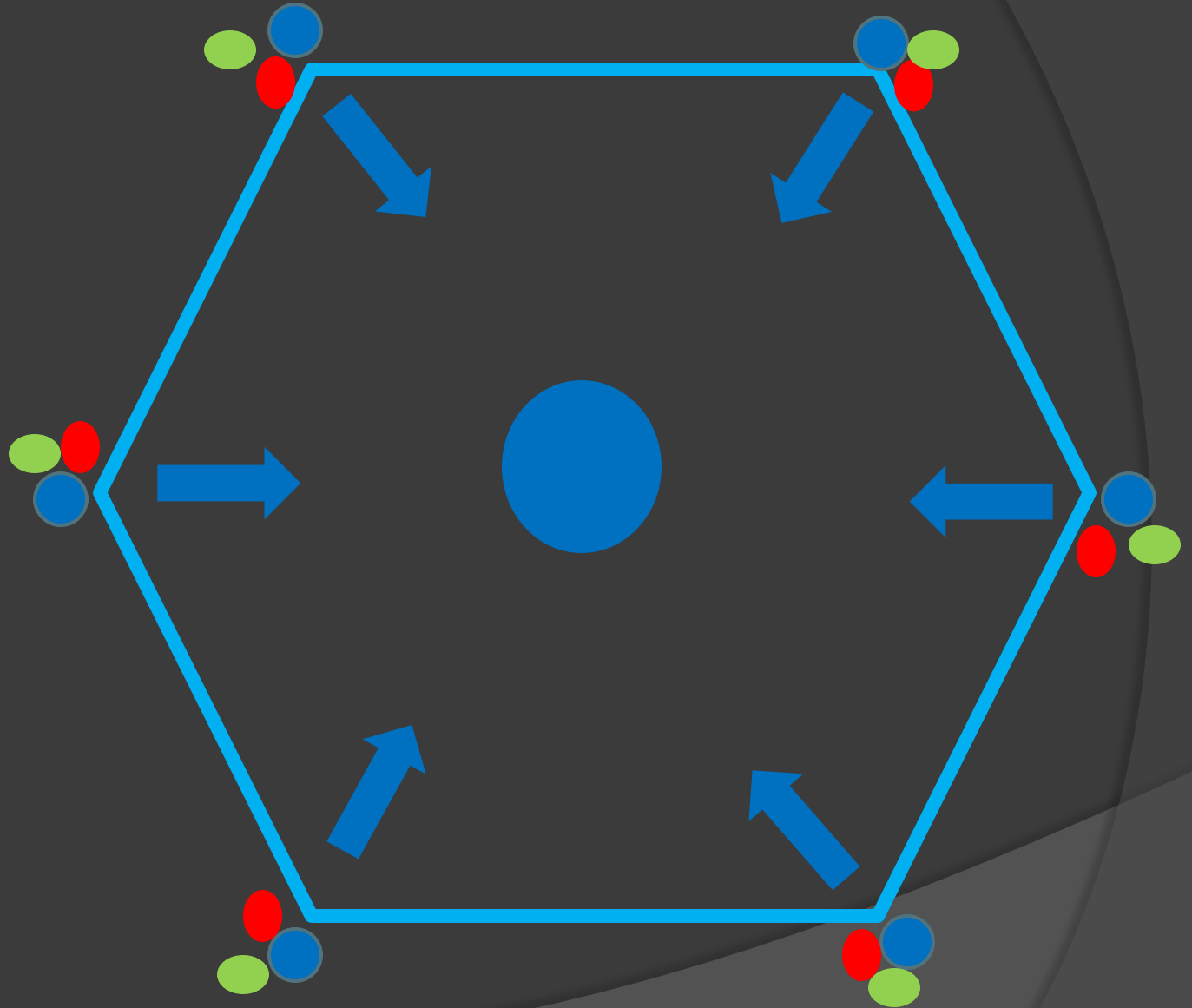
pathological

Portal

Classical



Classical
Lobule:
outlined by
connective
tissue; not in
humans.

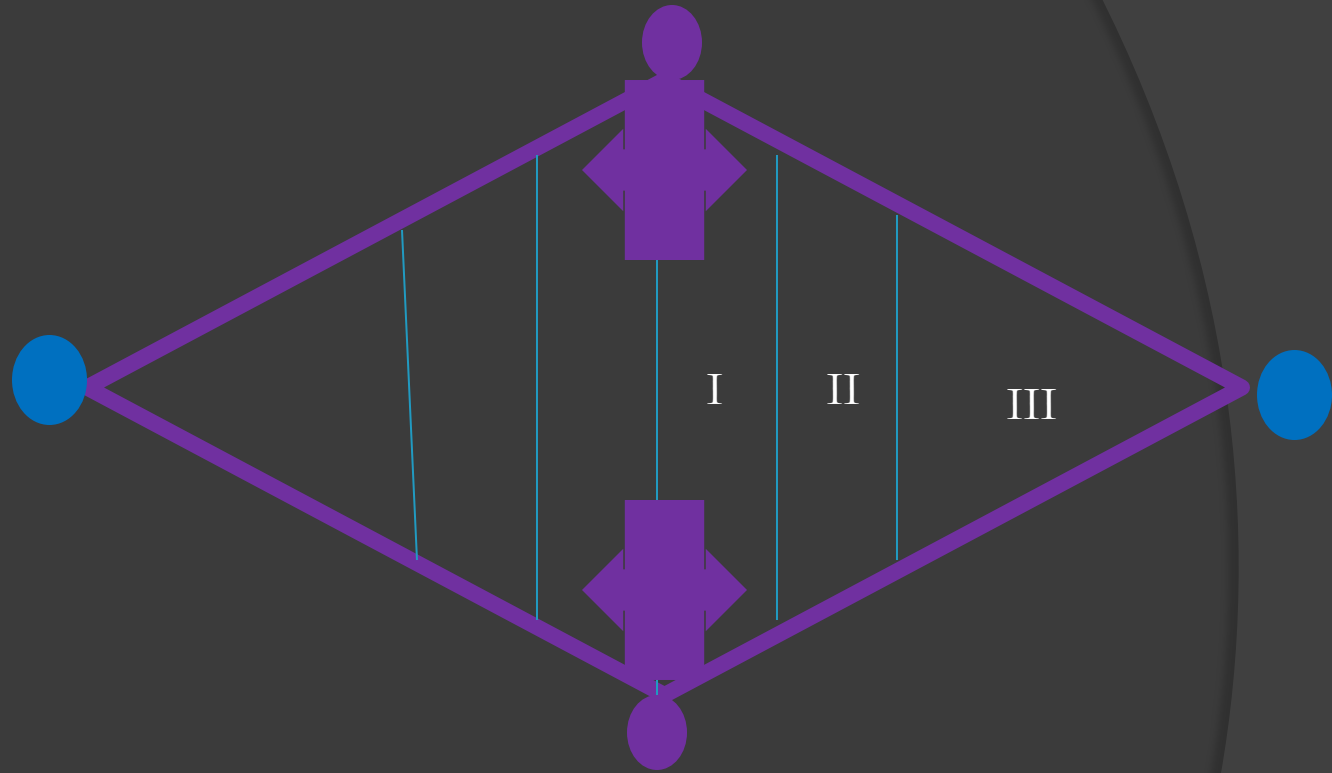


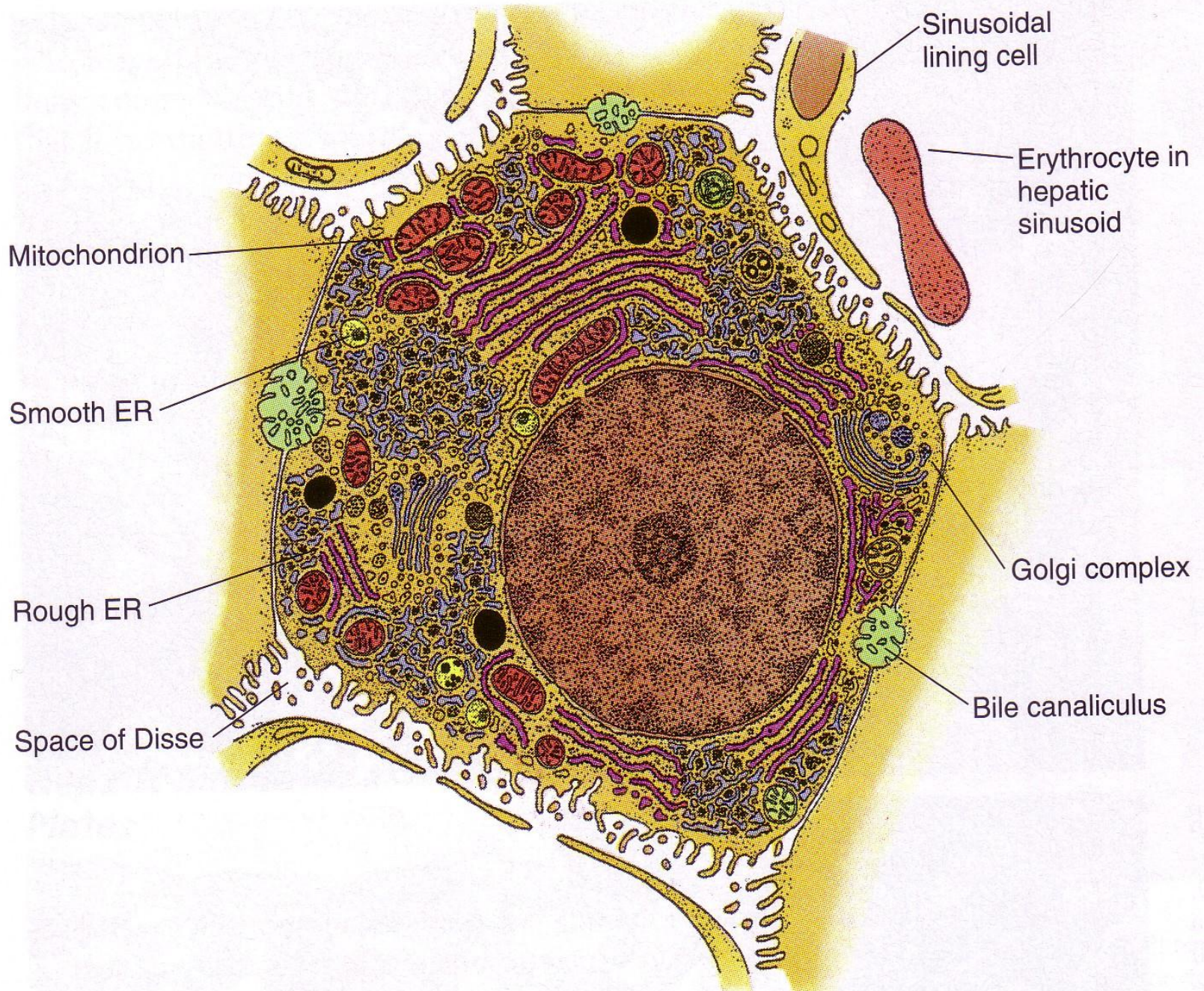
Portal Lobule:

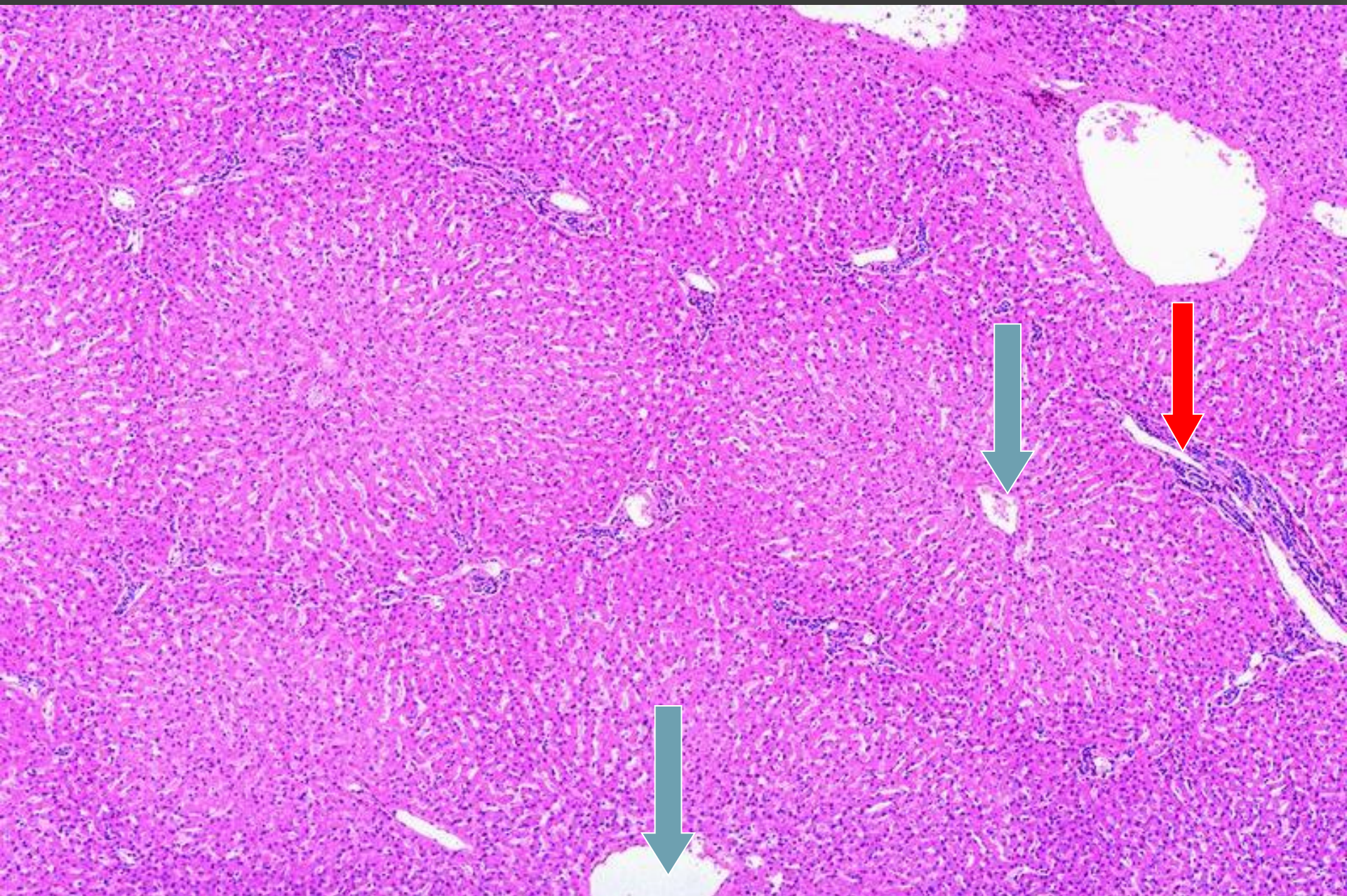
Based on bile drainage from adjacent liver cells; appears triangular with heads of the triangle are central veins.

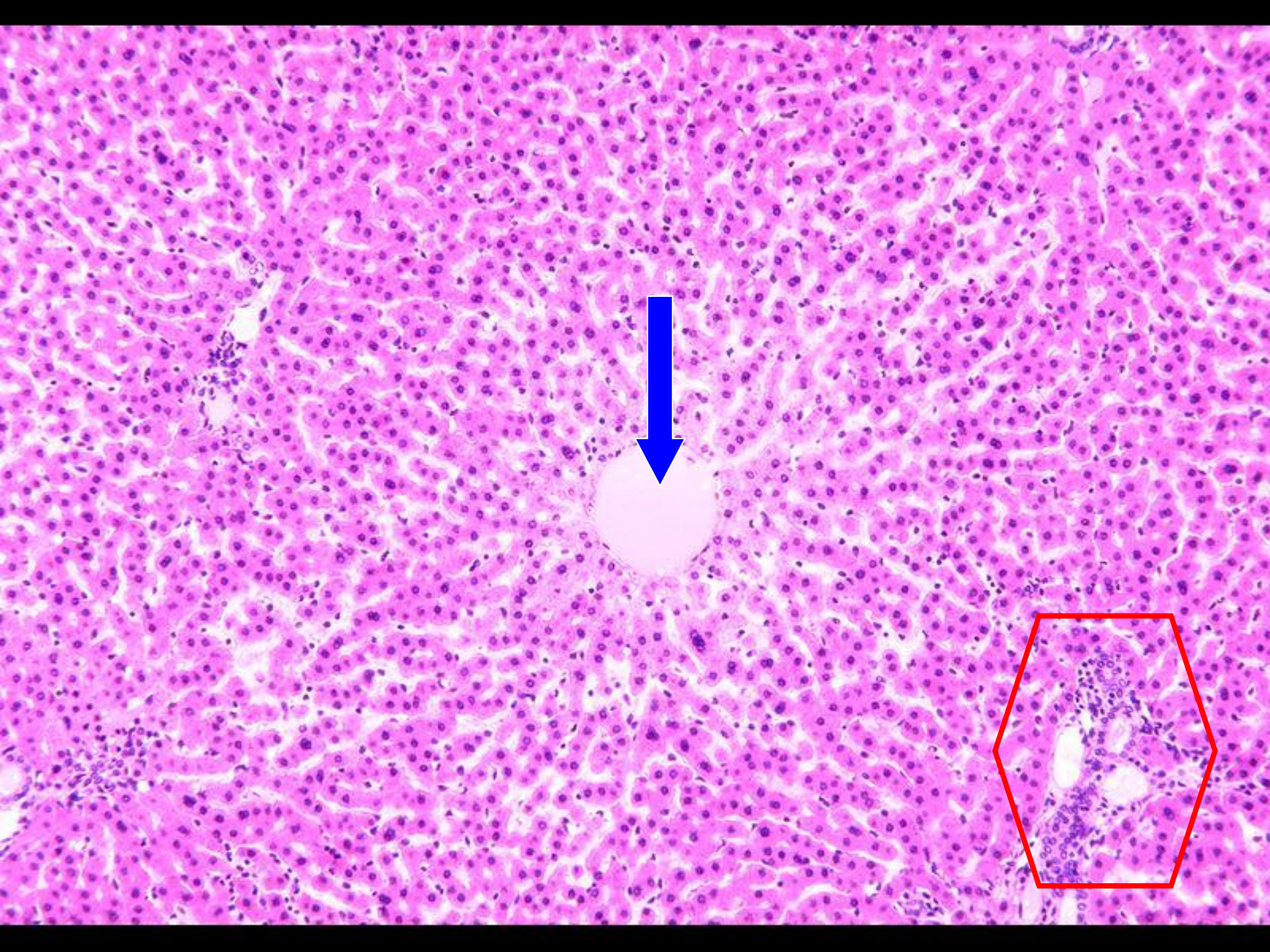


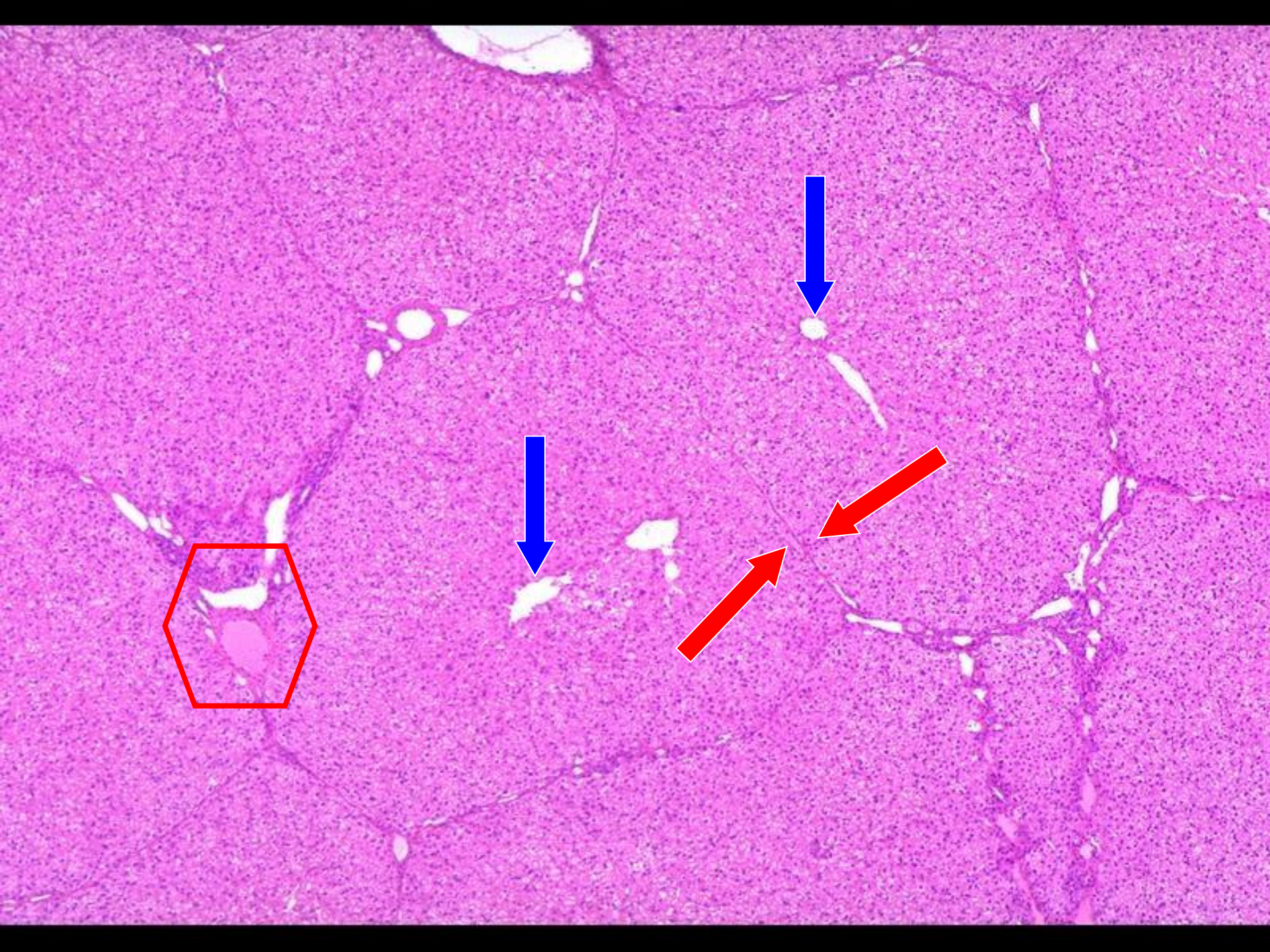
Hepatic
acinus (of
Rappaport):
based on the
blood flow
from
distributing
vessels.

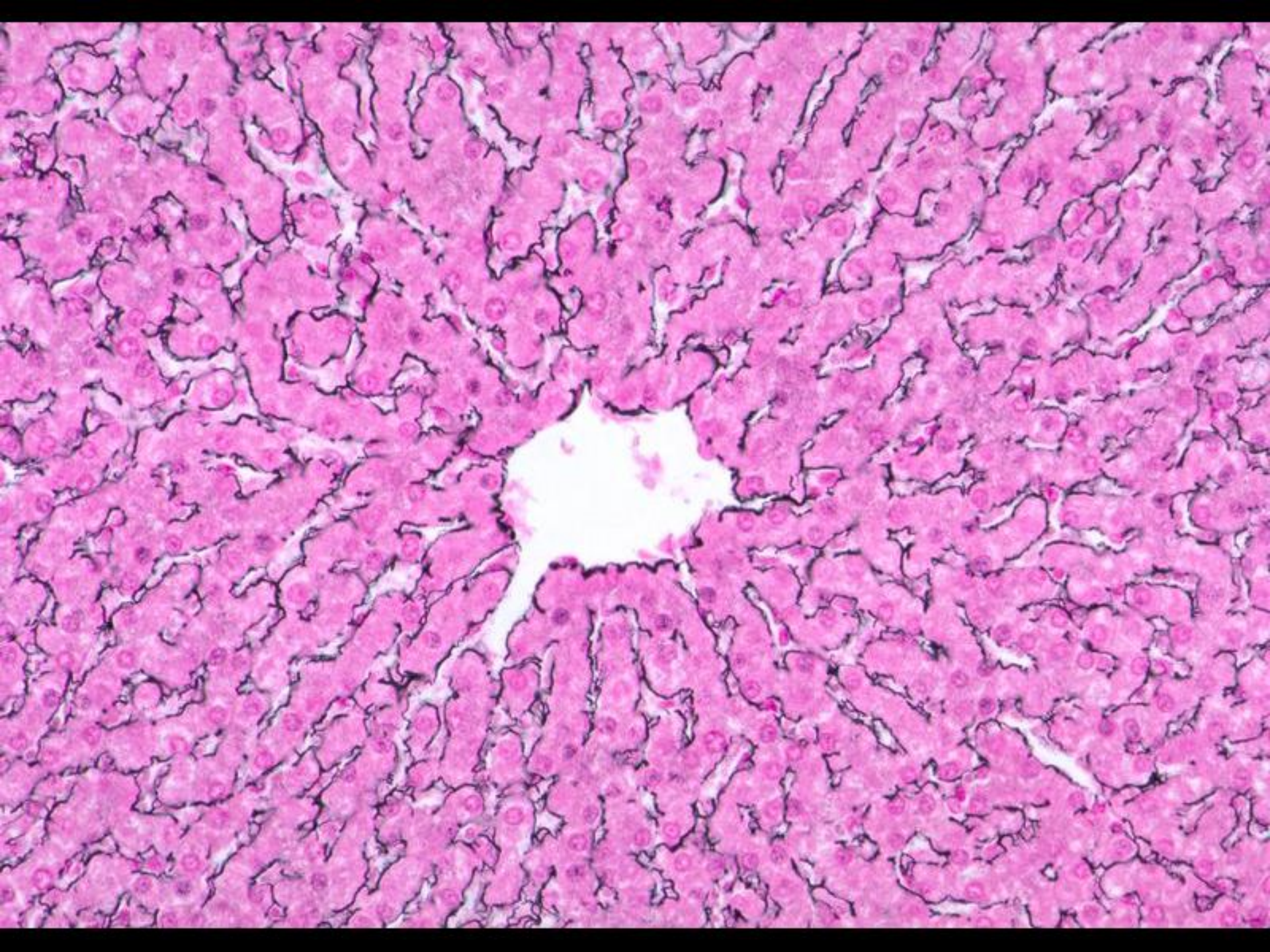


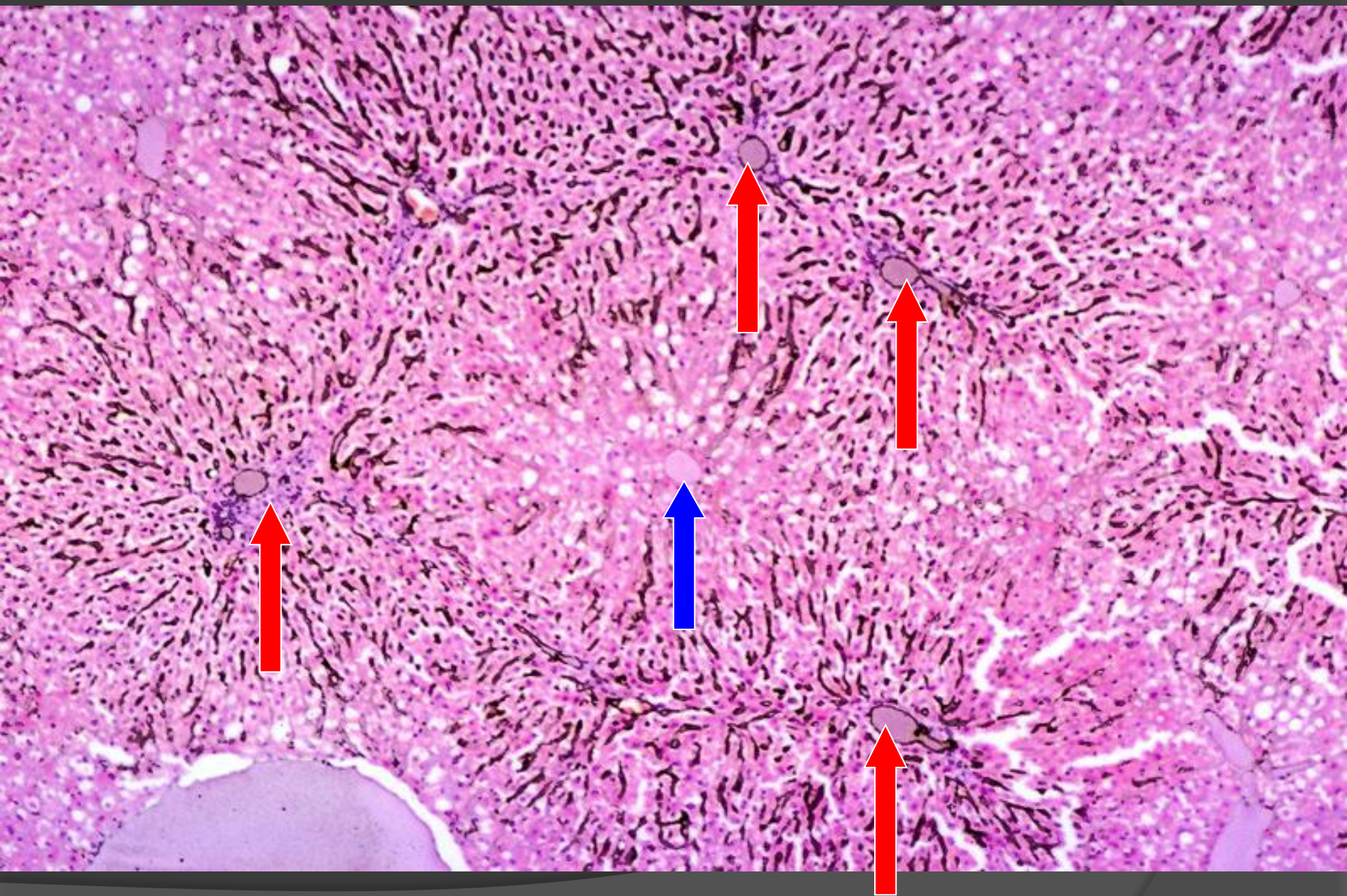


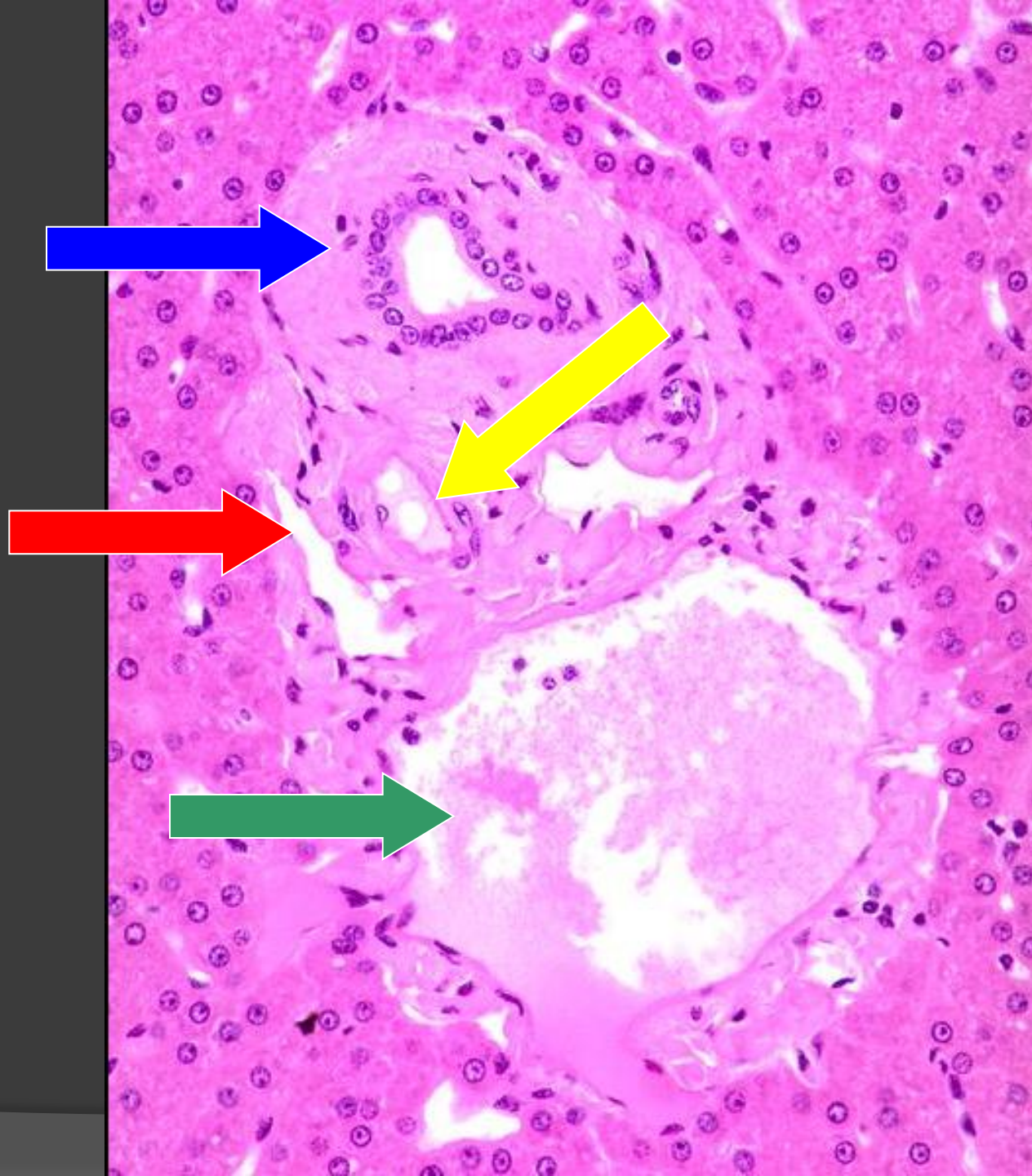


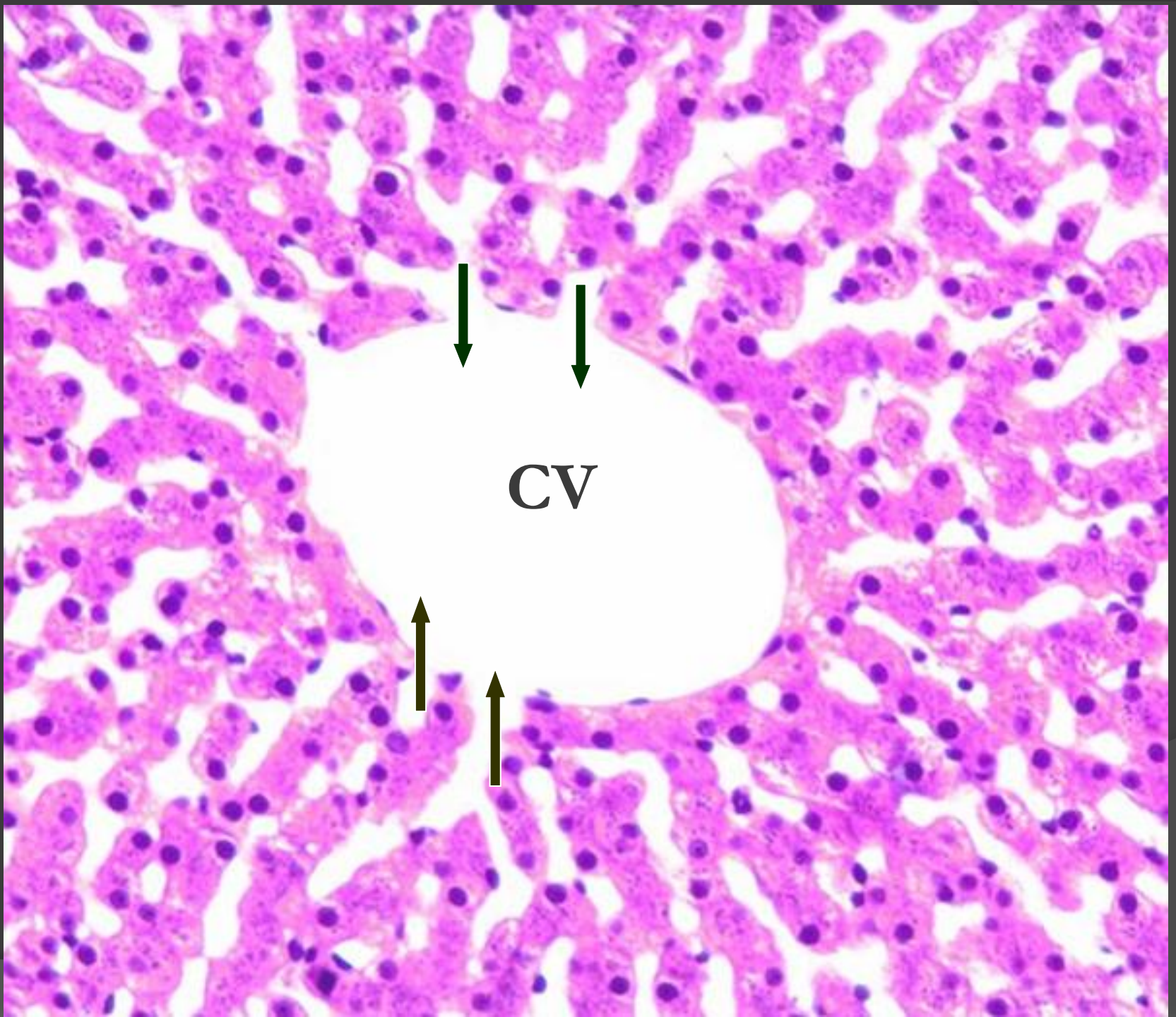


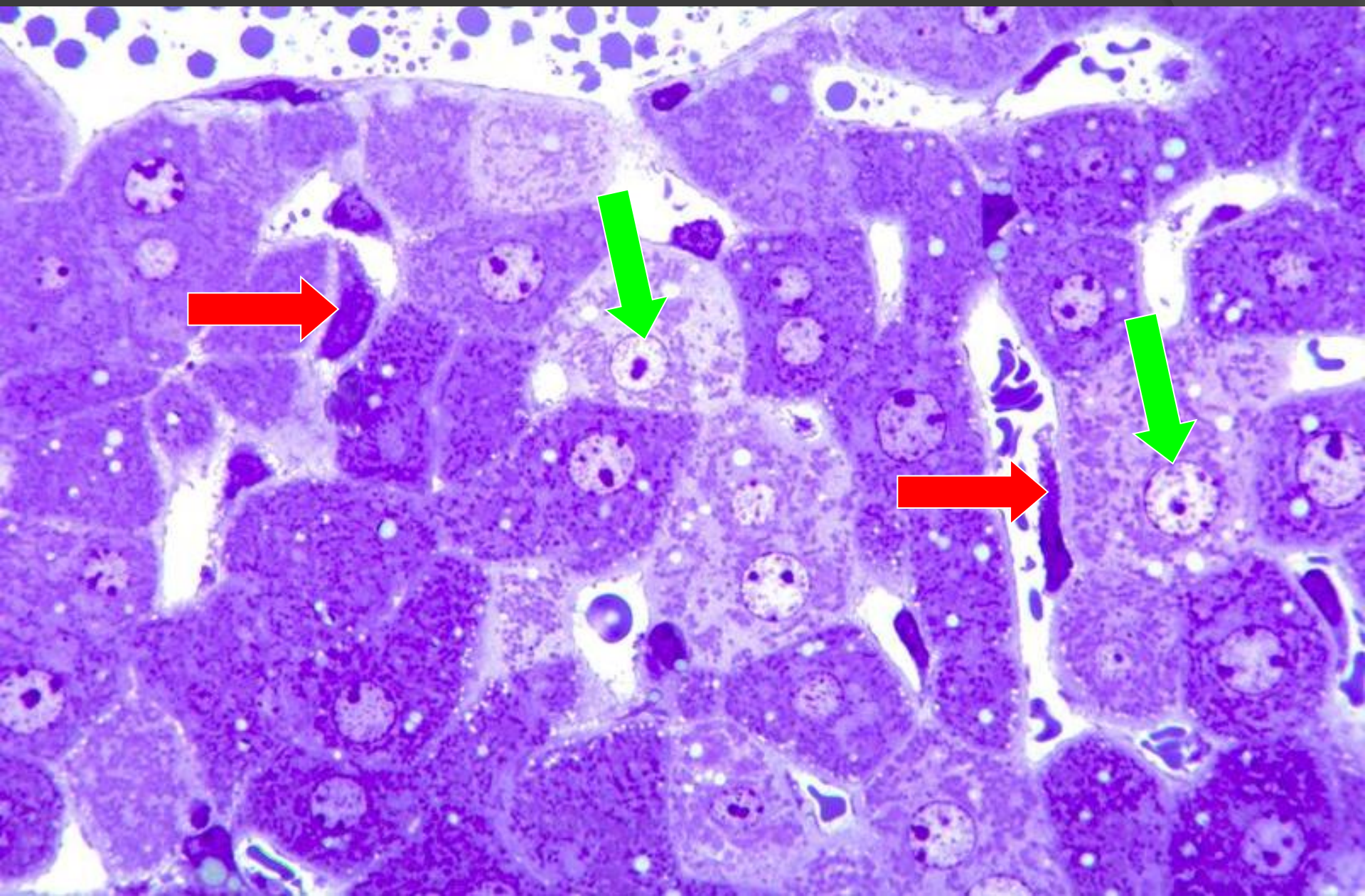


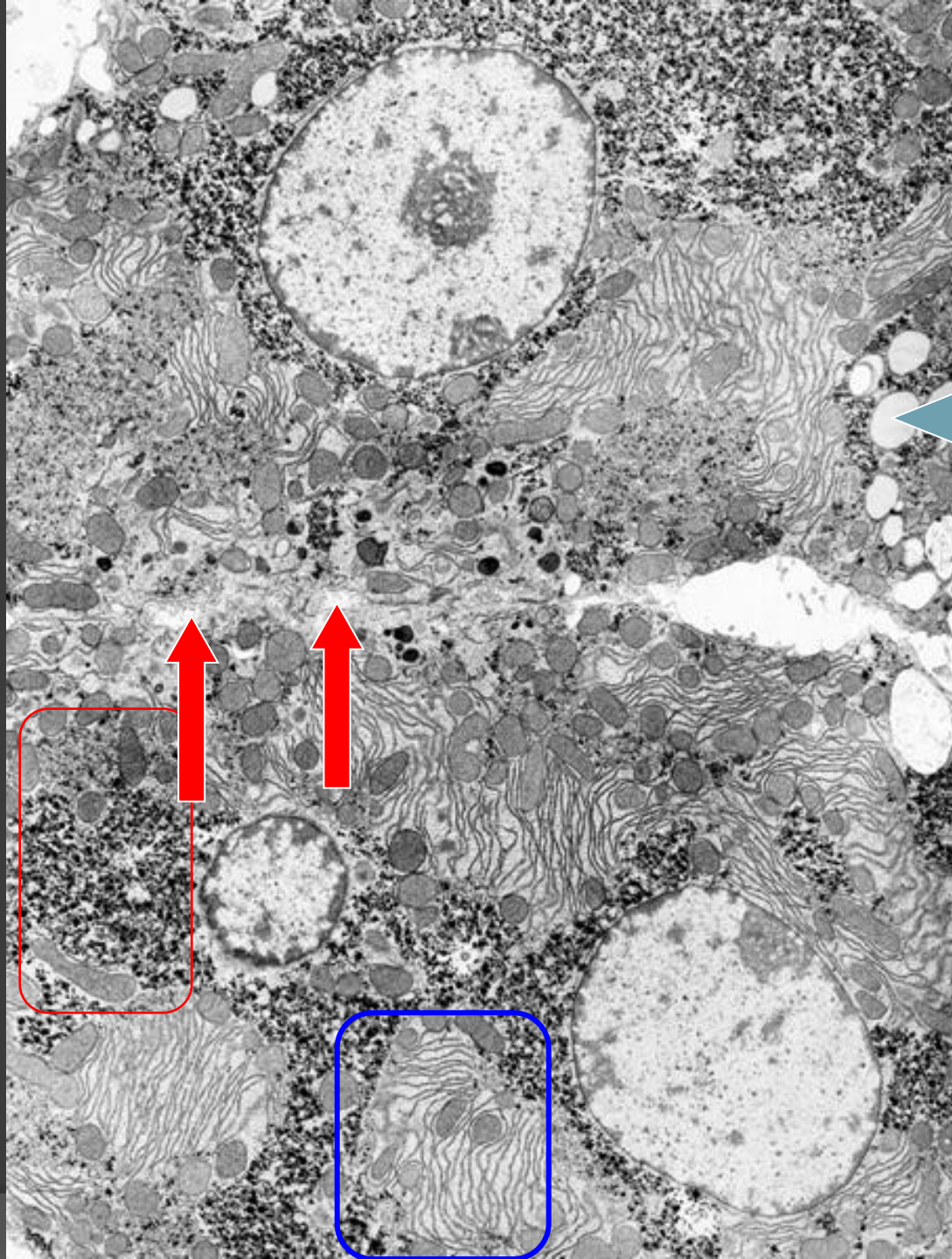


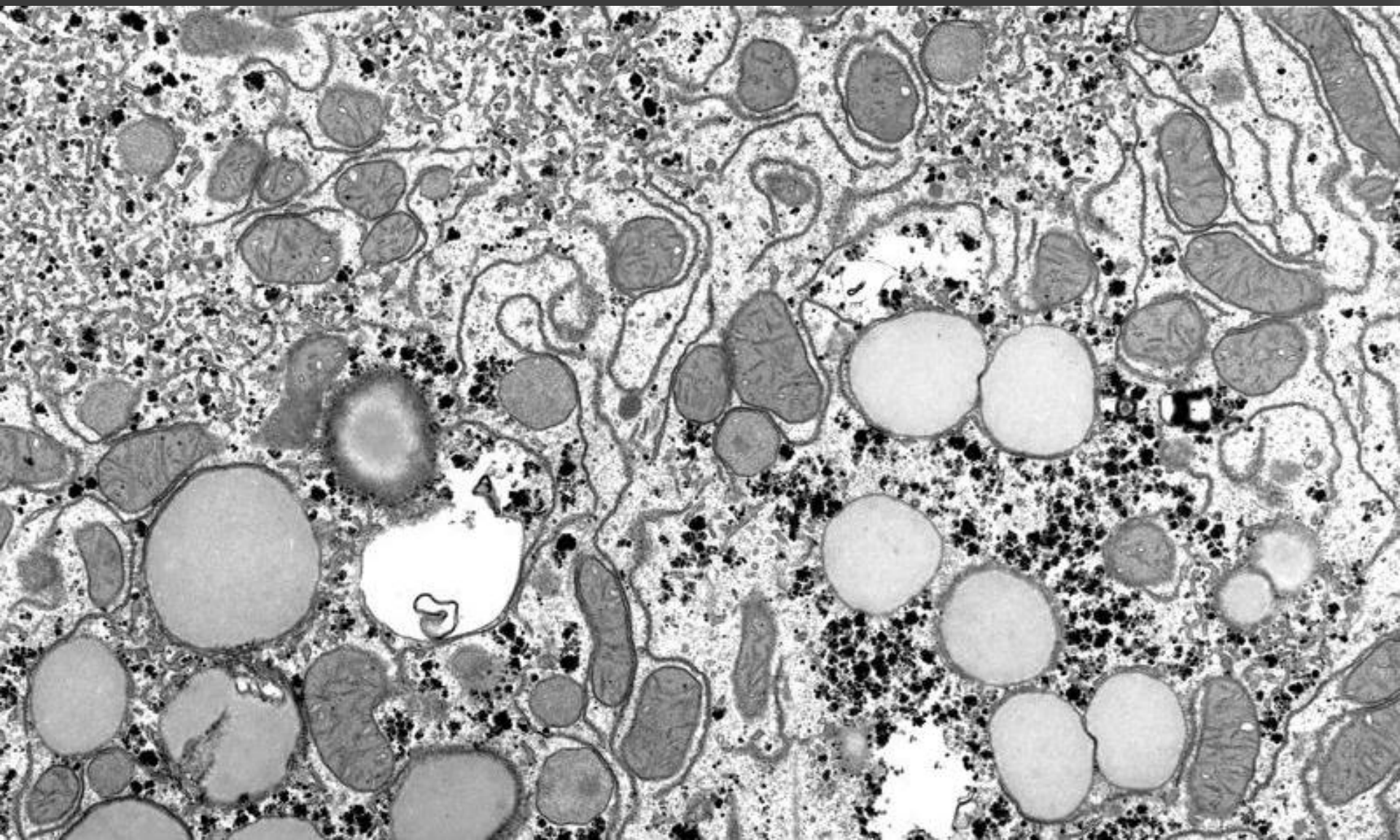






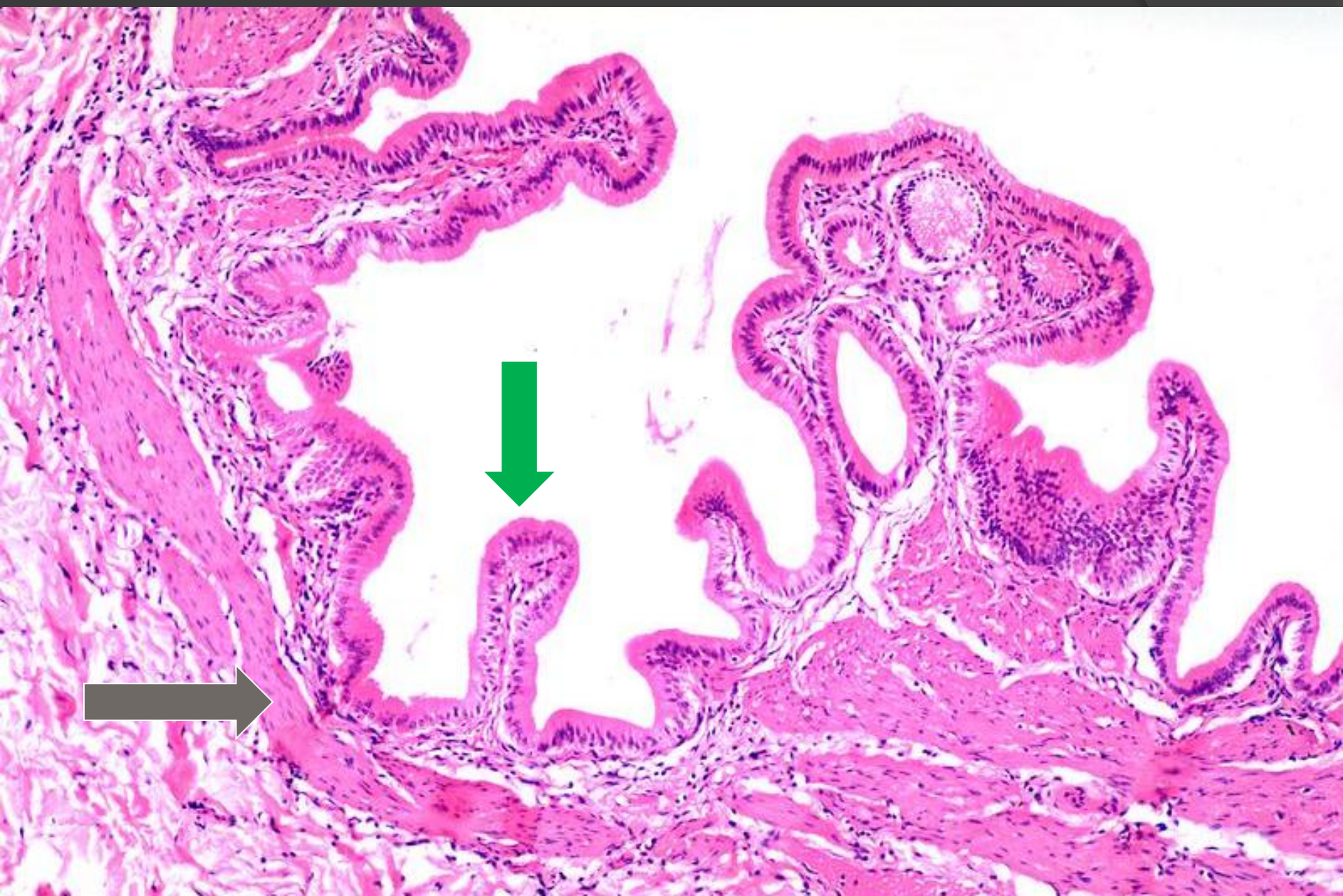


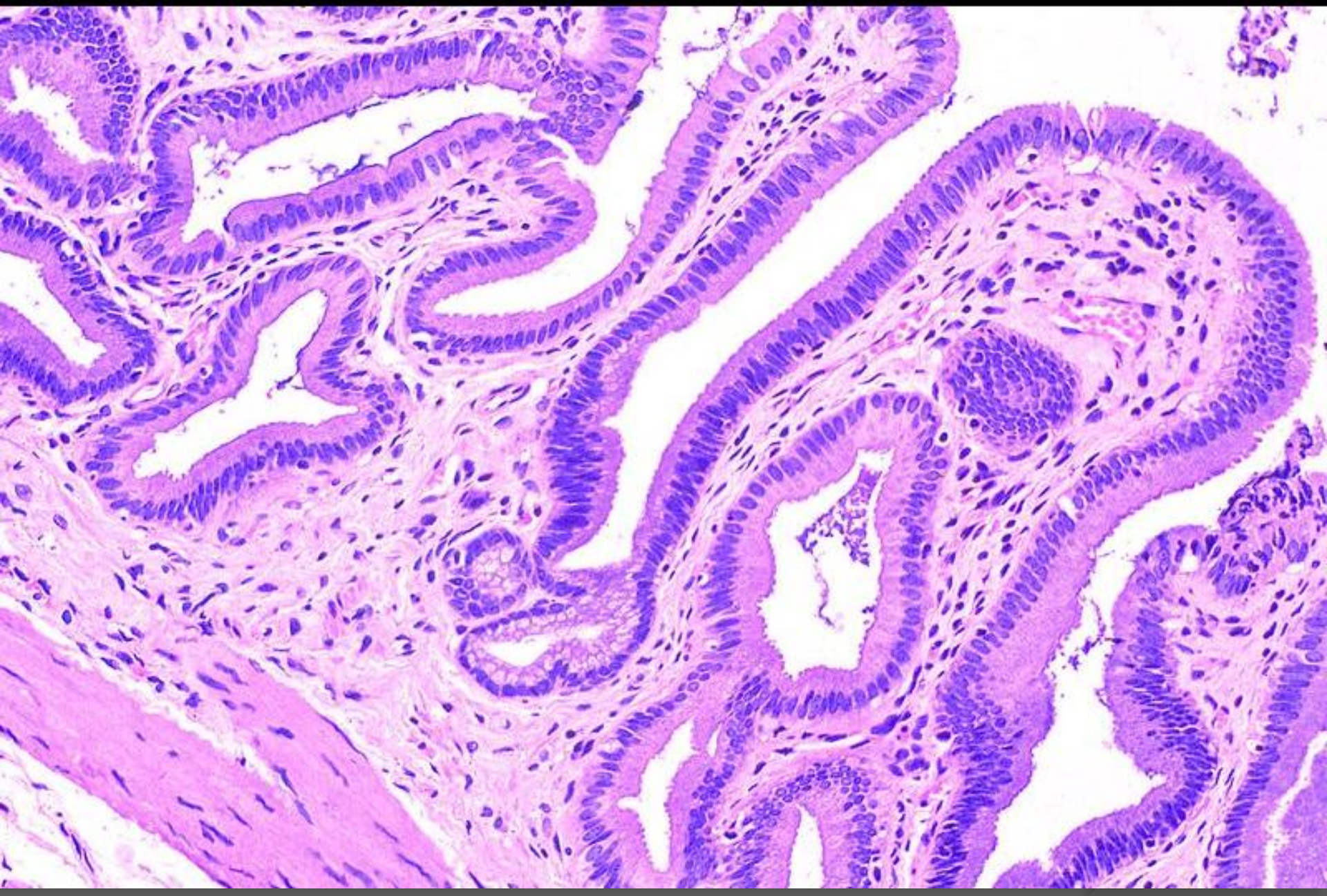






Gall Bladder

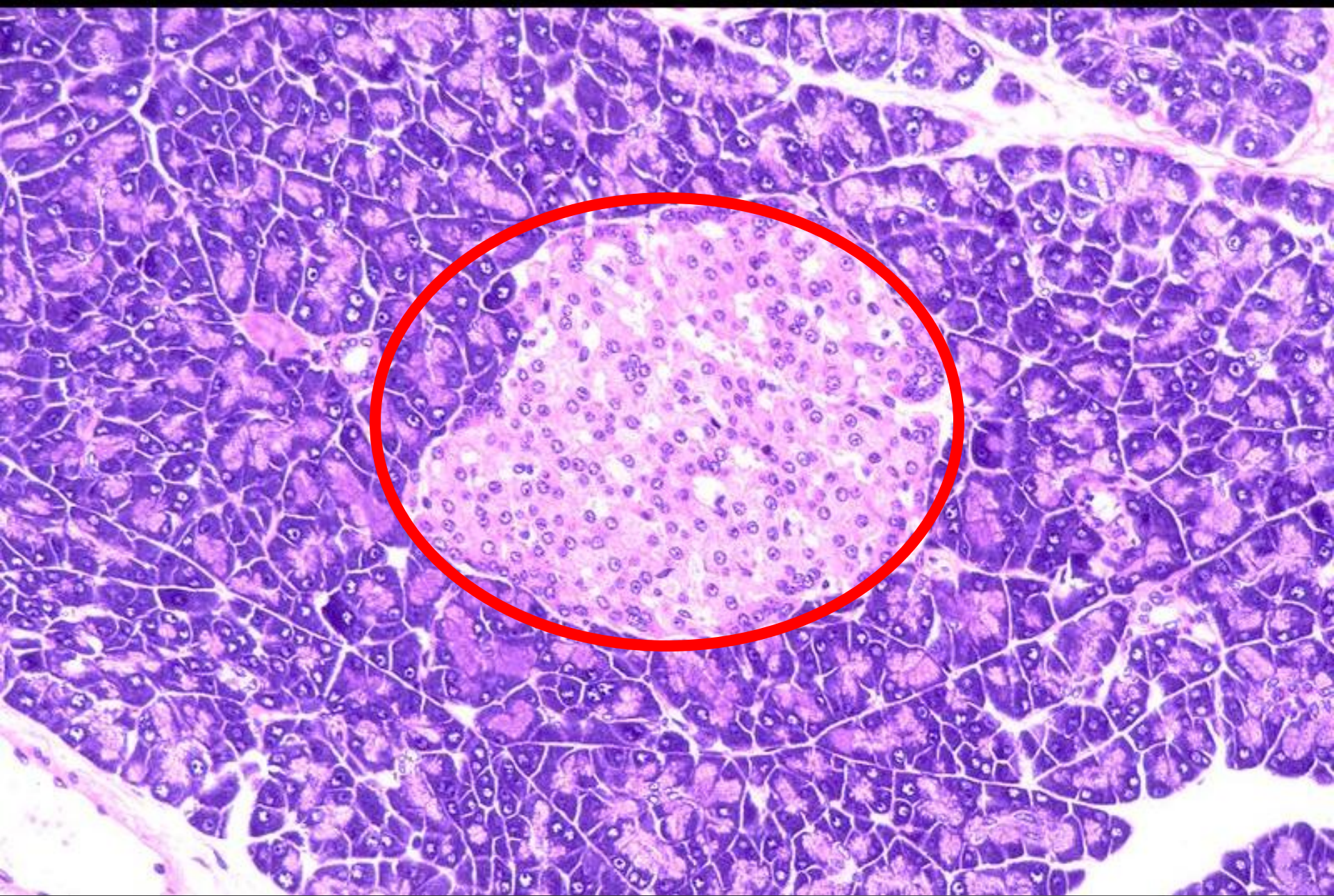


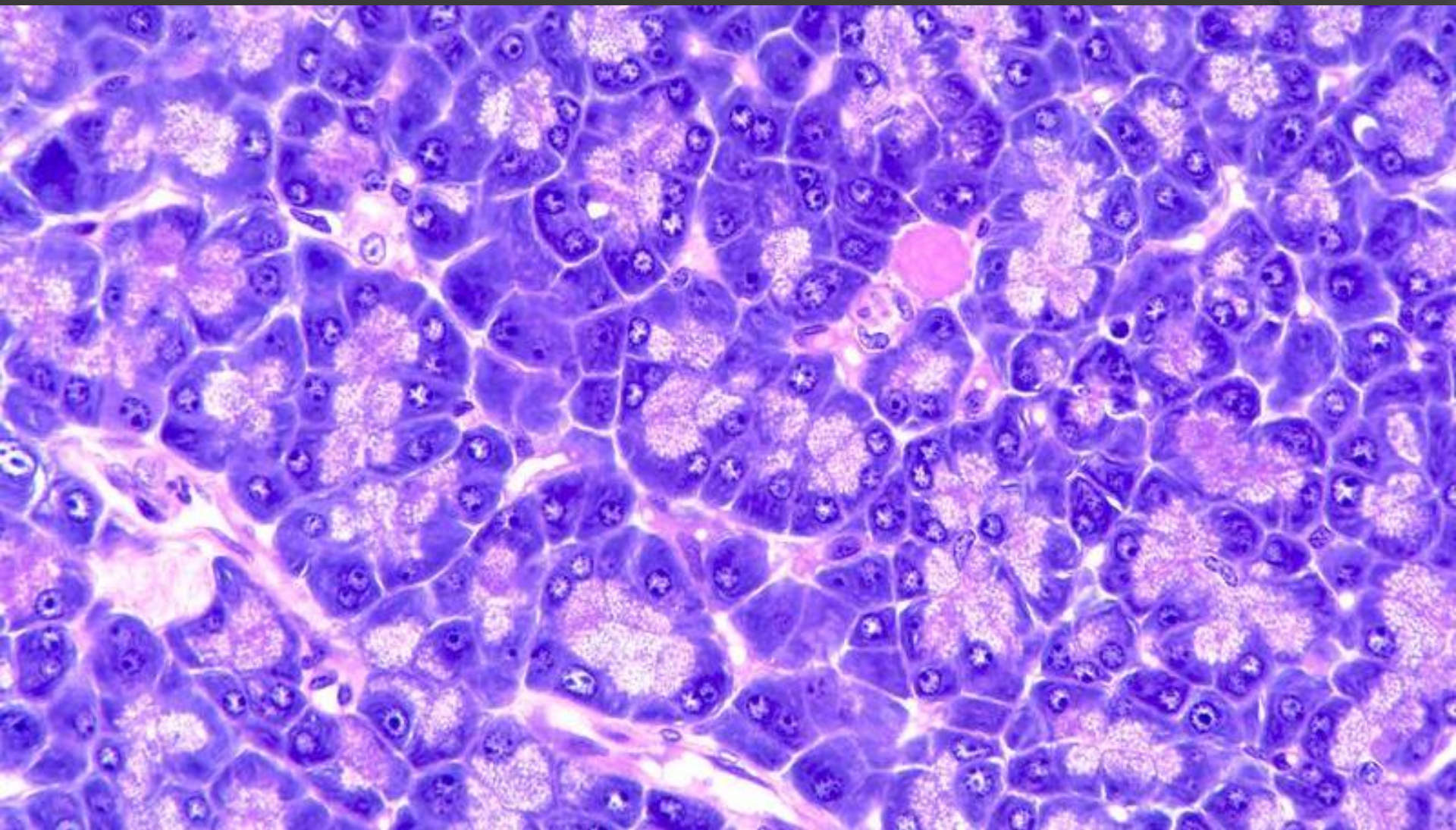


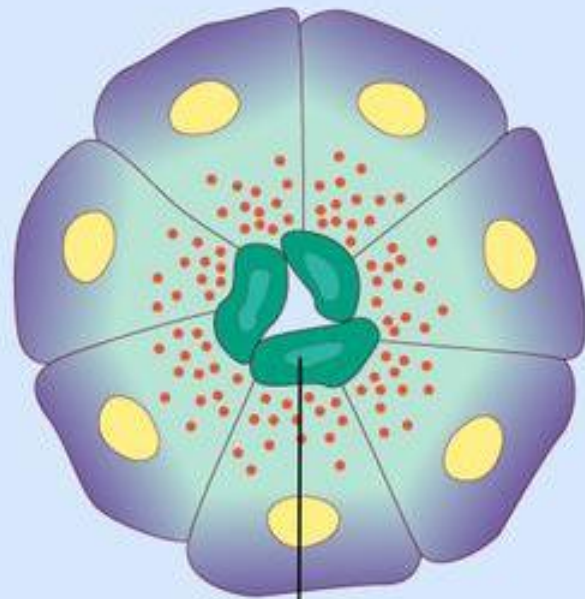




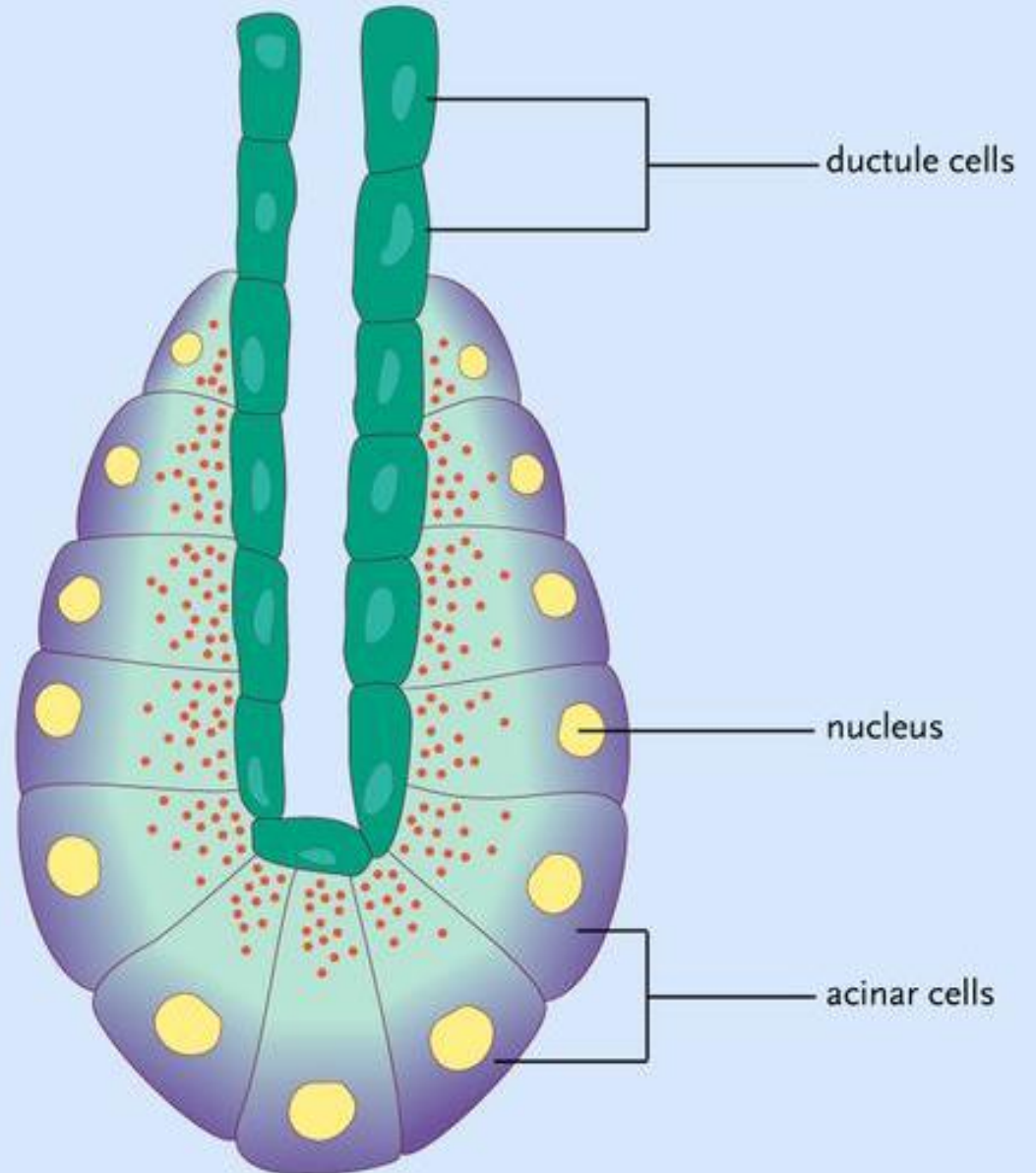
Pancreas







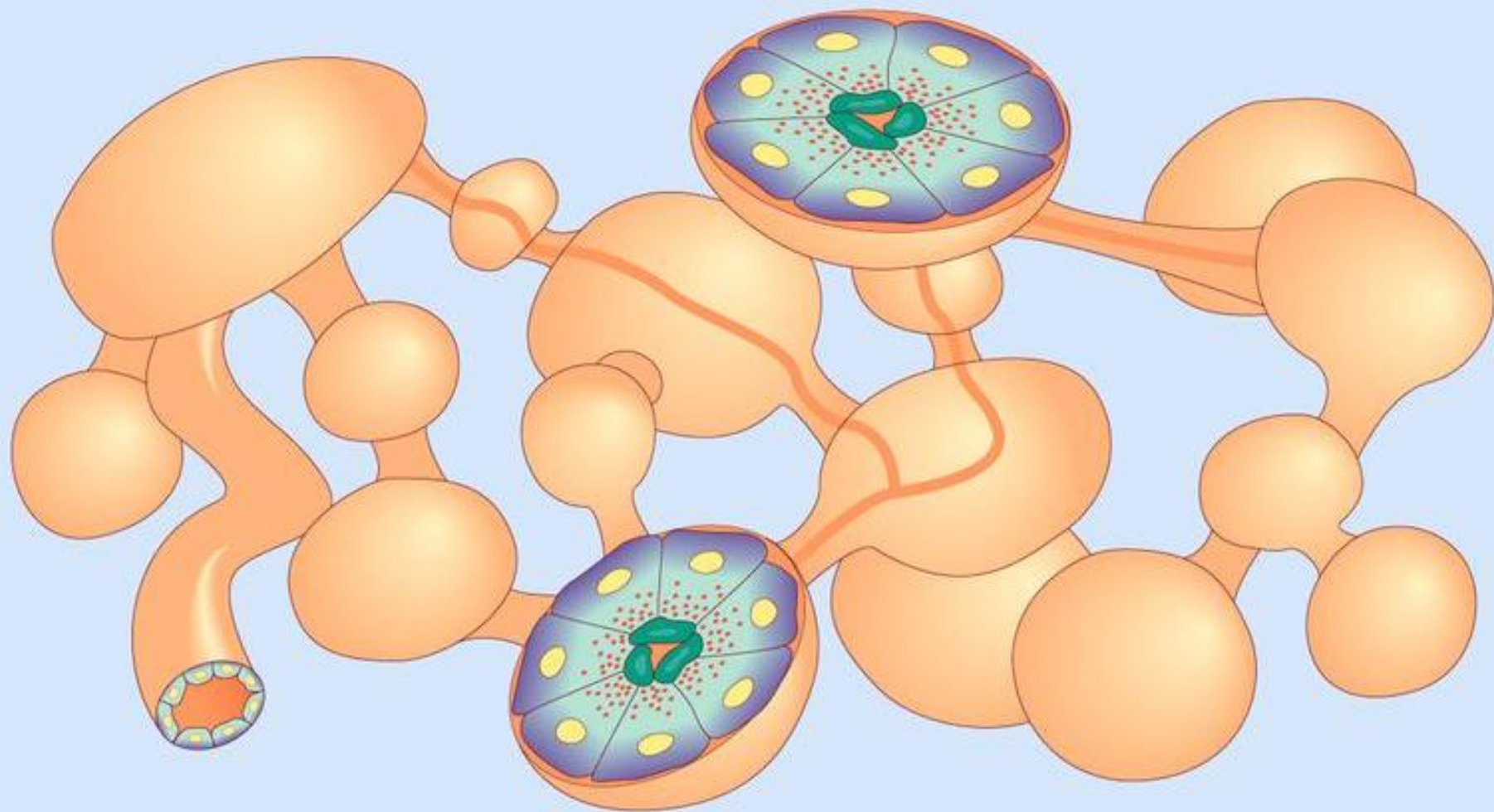
intercalated
ductule cell
(centroacinar cells)

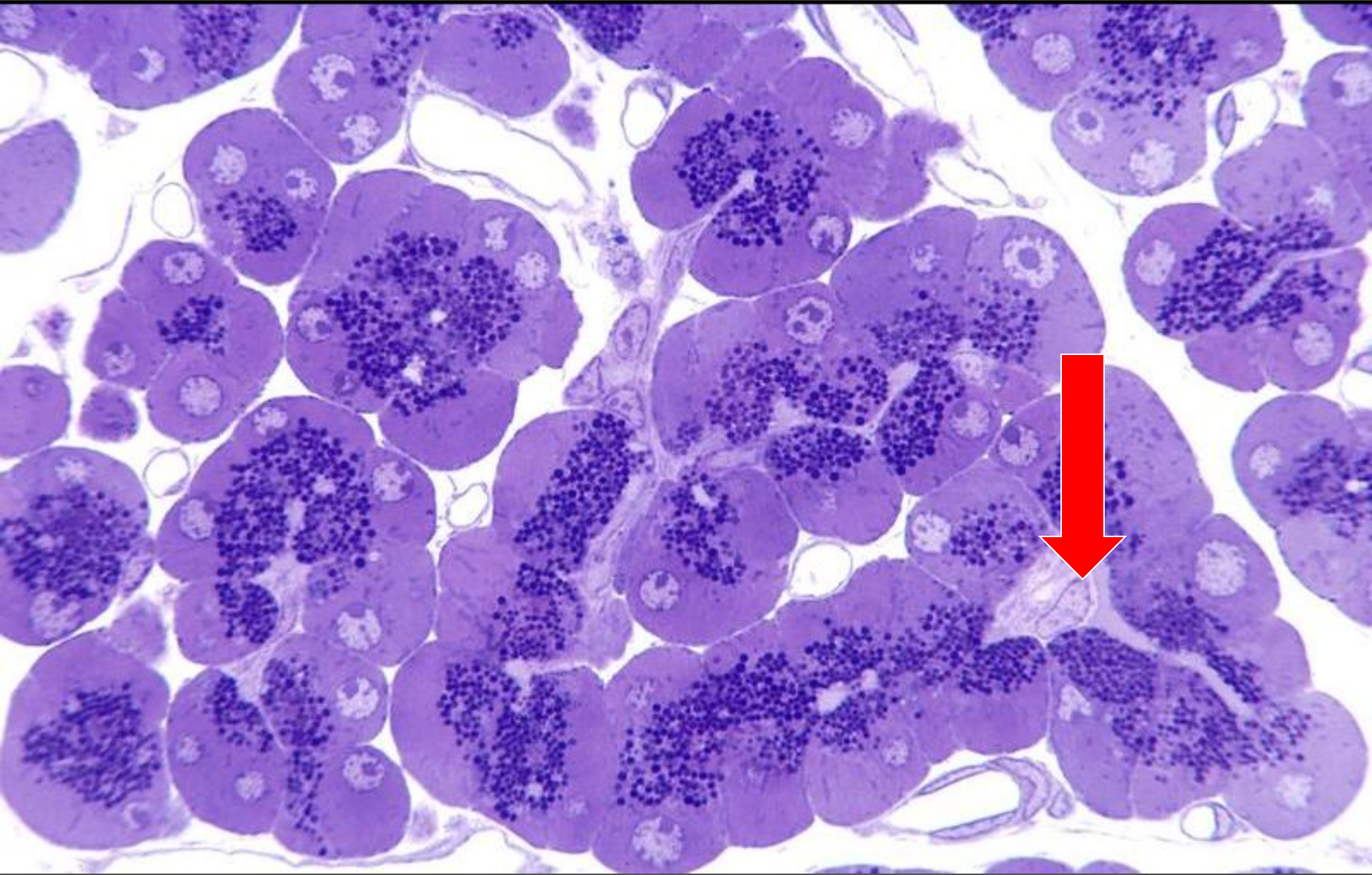


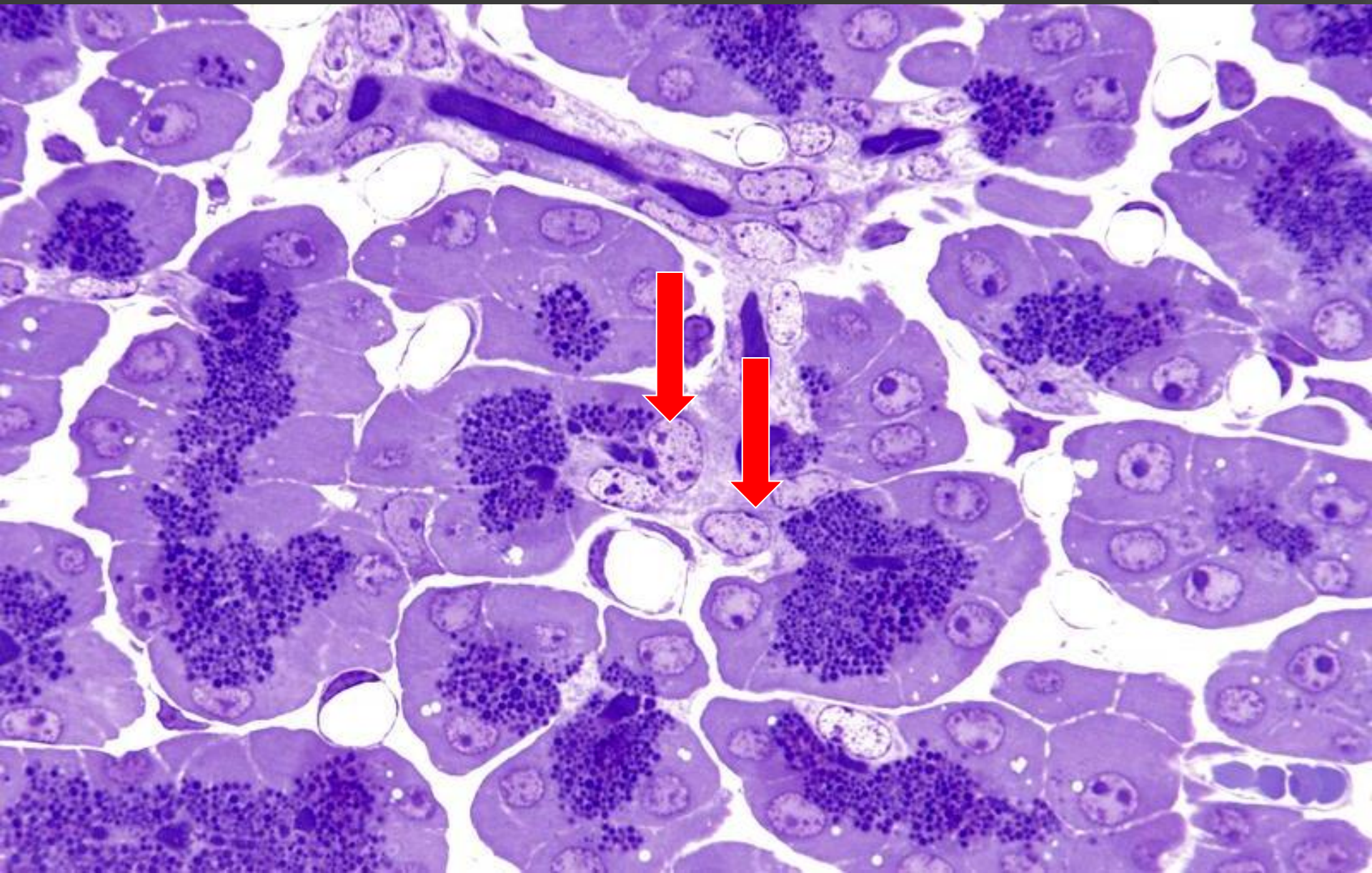
ductule cells

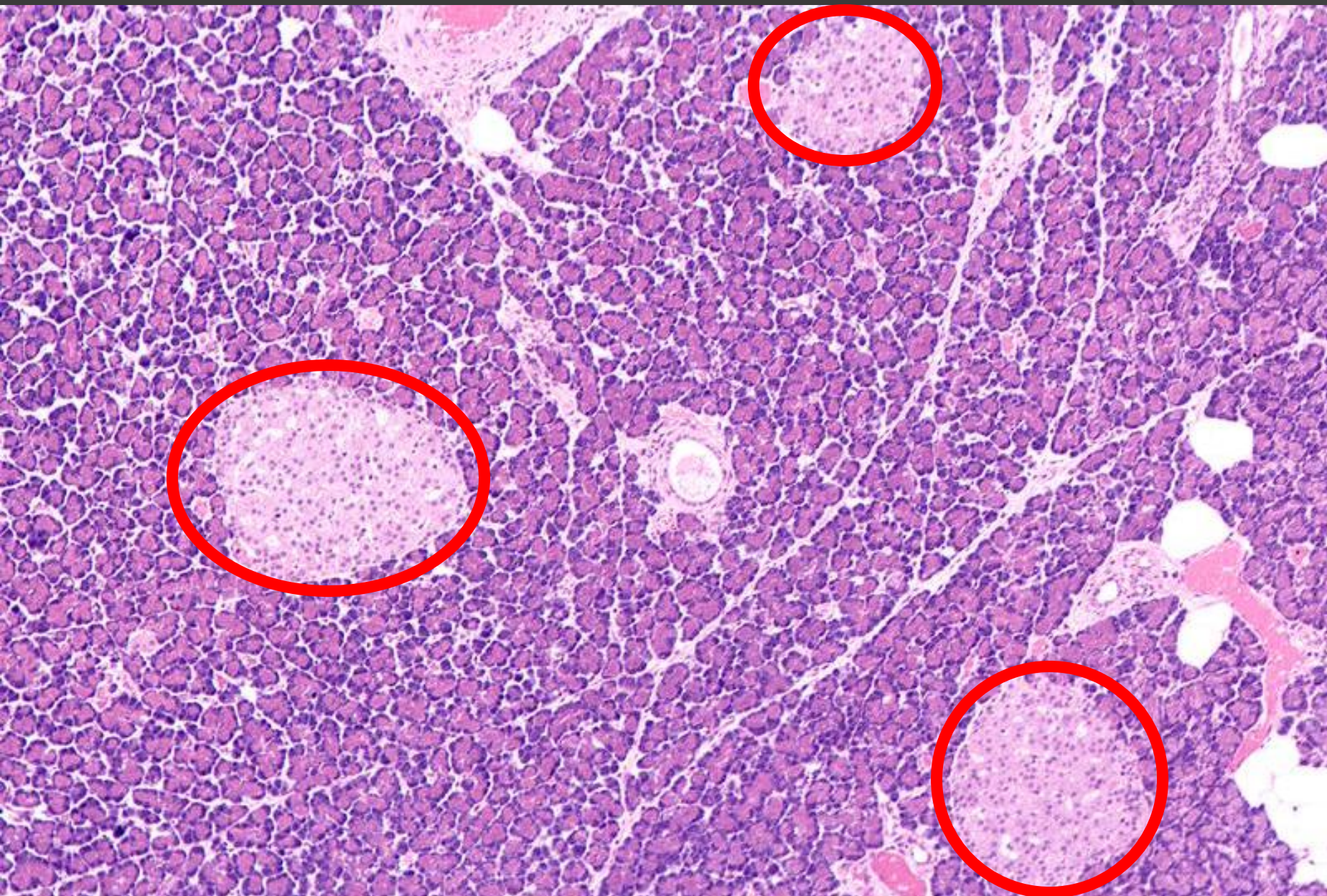
nucleus

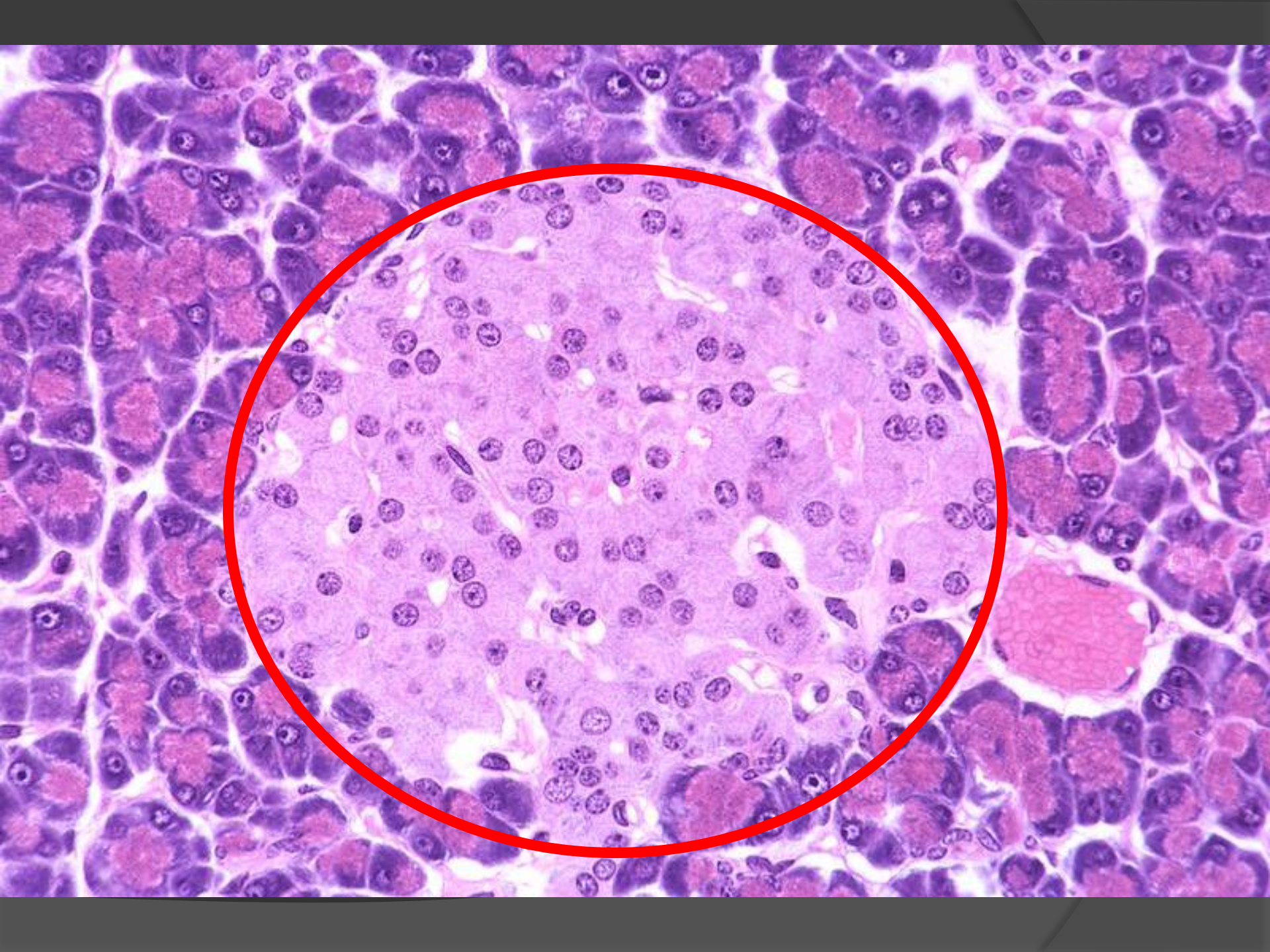
acinar cells

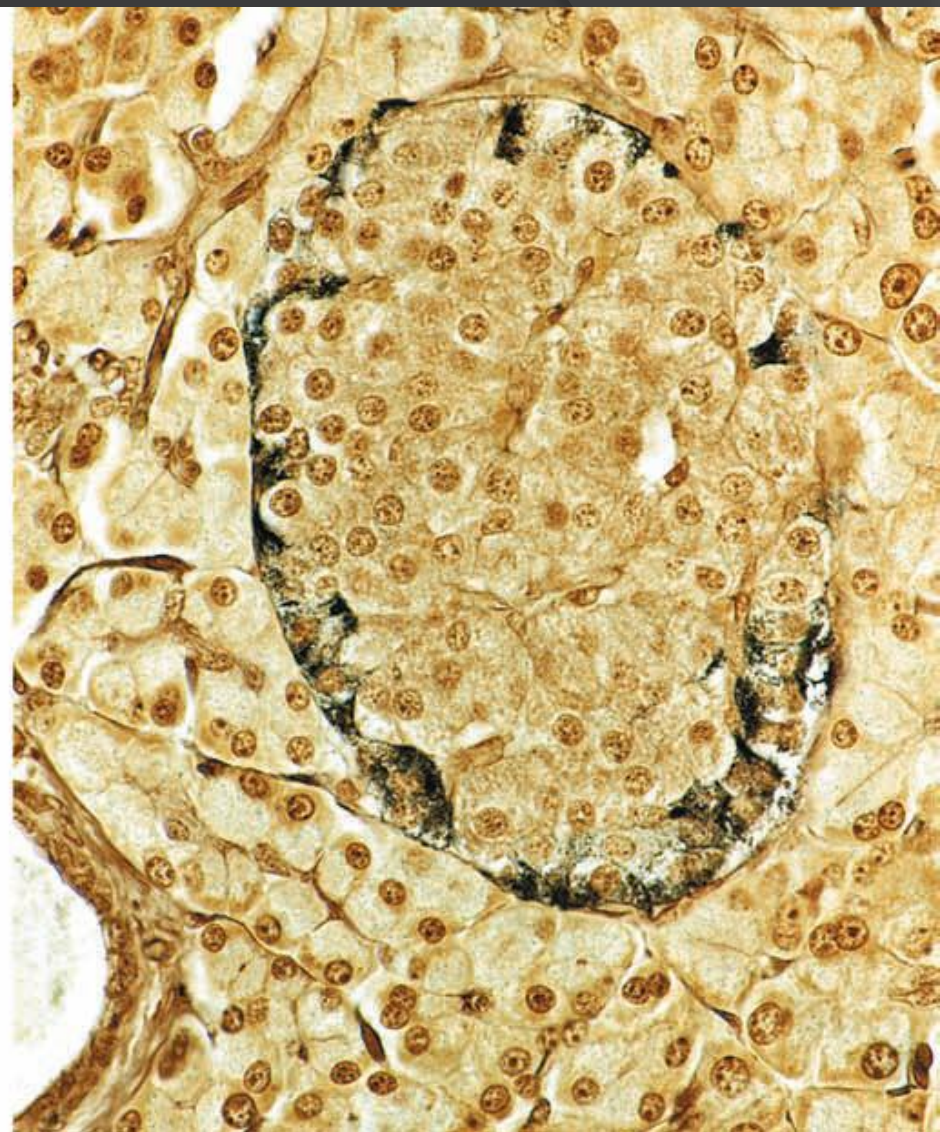
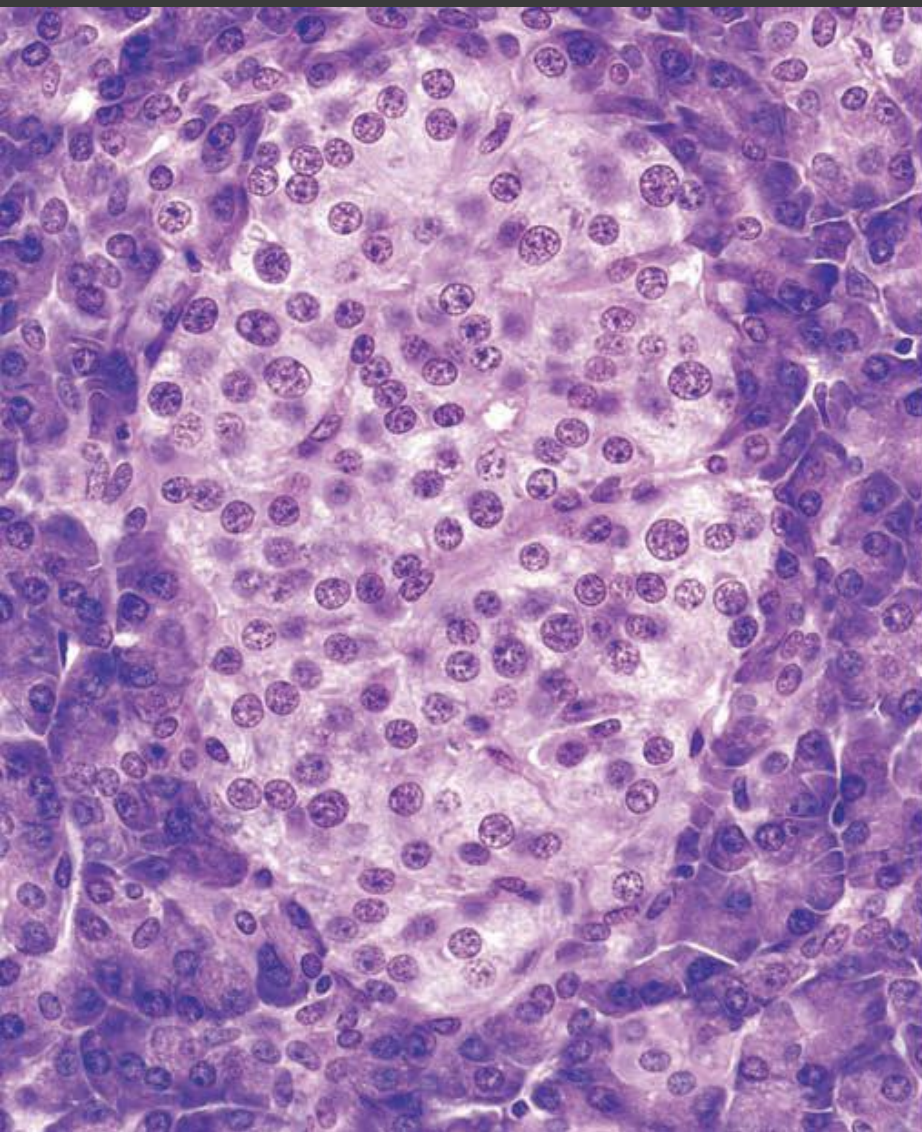




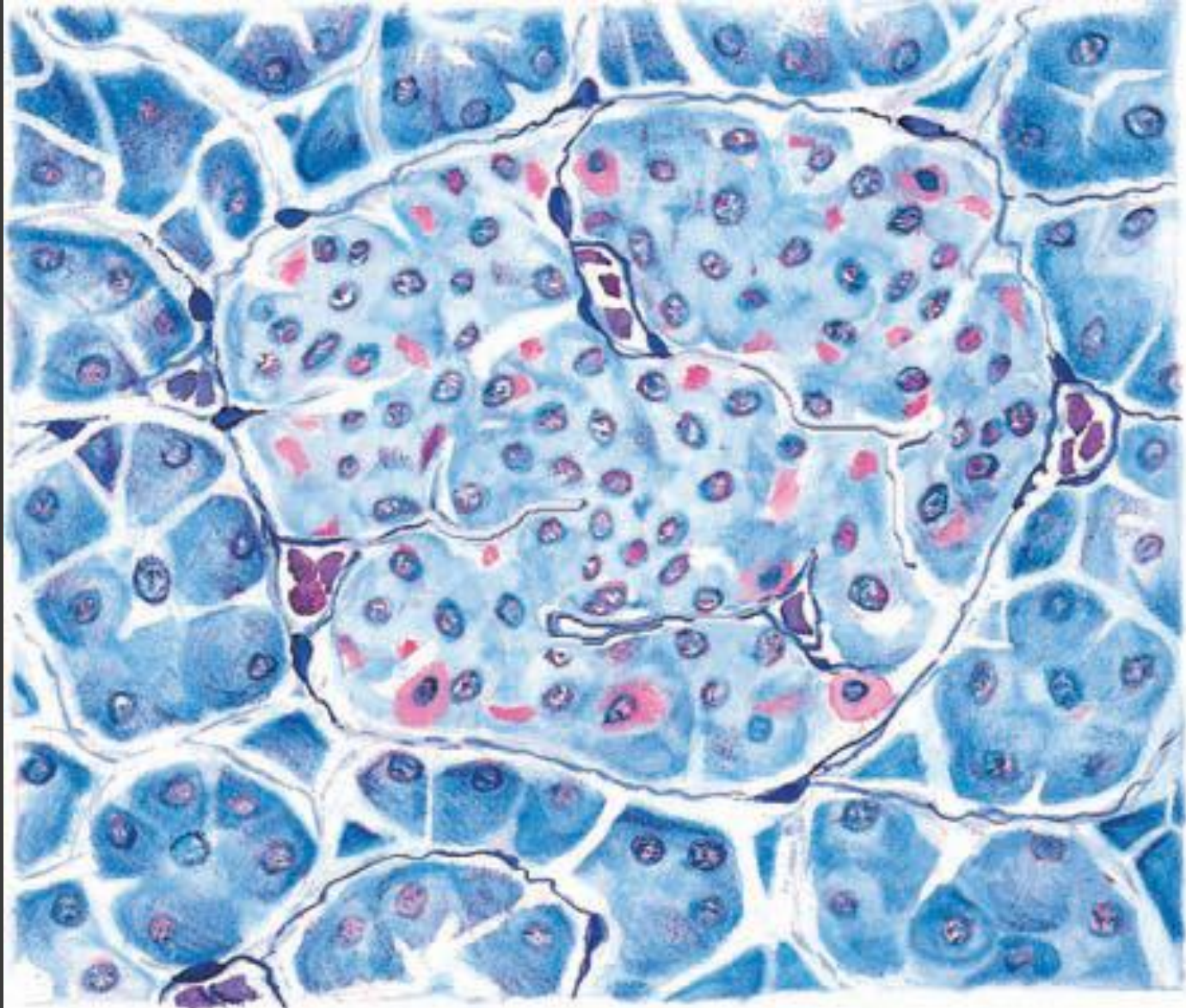






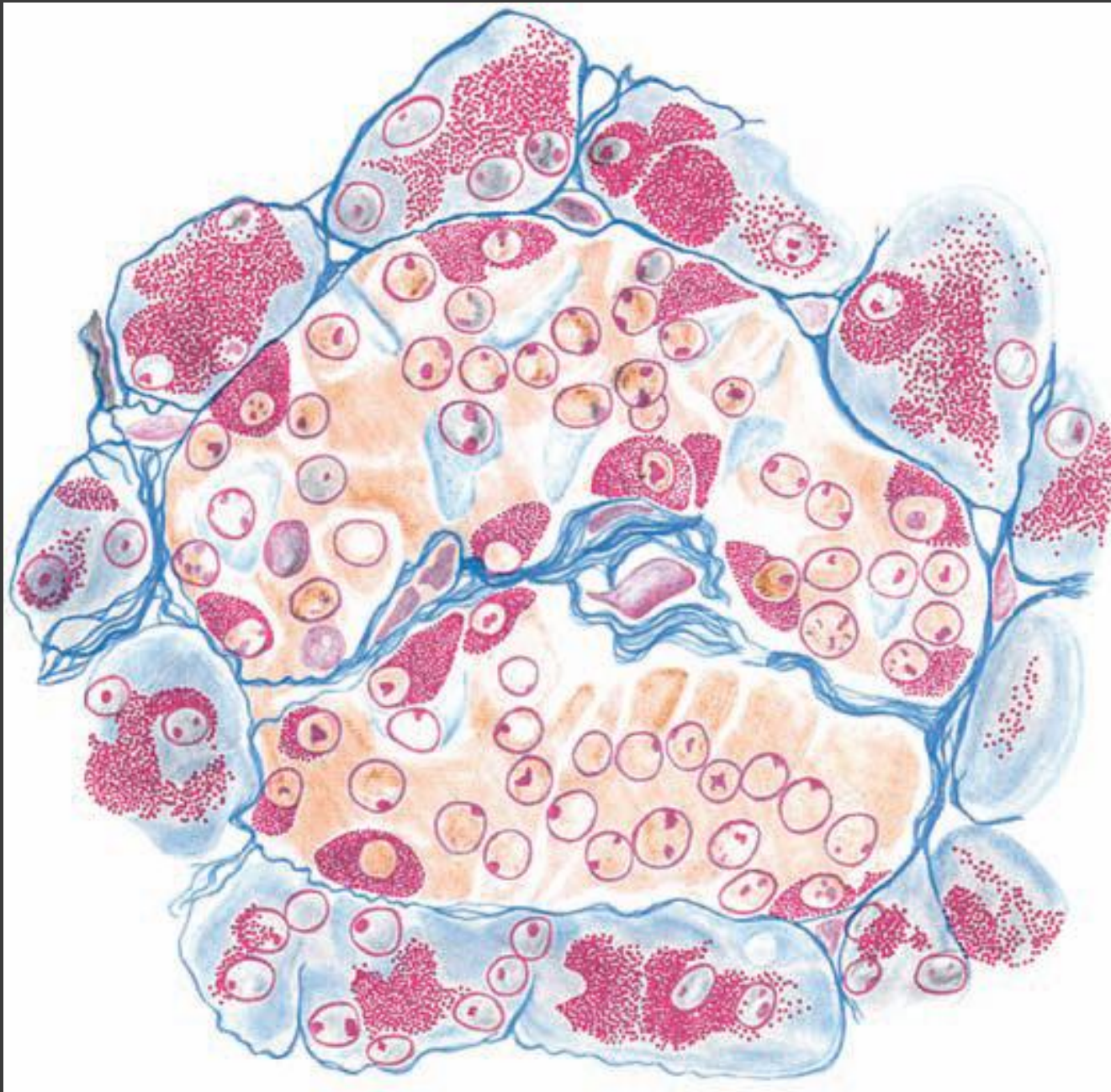


**Grimelius silver stain
(A cells: Glucagon-secreting cells)**



Pink: A cells
Blue: B & D cells

Gomori's chrome alum hematoxylin & phloxine



Red: A cells (glucagon)
Blue: D cells (Somatostatin)
Brown: B cells (Insulin)

Mallory-Azan stain