

## Liver, Gallbladder and Pancreas

*Contains of this LAB.*

Liver human ( <b>MH126b</b> )
Liver pig ( <b>MHS206</b> )
Kupffer cells ( <b>MH013</b> )
Gall Bladder ( <b>MH130b</b> )
Pancreas ( <b>MHS211</b> )

*Edited by Fahad A.*

Mosul Medical College 2018-2019 2<sup>th</sup> stage

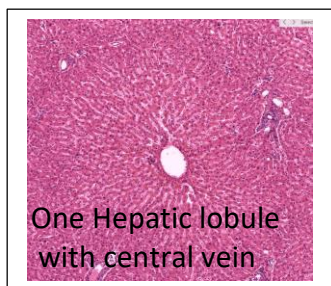


Histology Guide - Aperio slide scanner

This copy is used to study tissues with **Histology Guide** website to get a better result and a deeper understanding.  
Do not hesitate to ask the doctors of the histology branch.

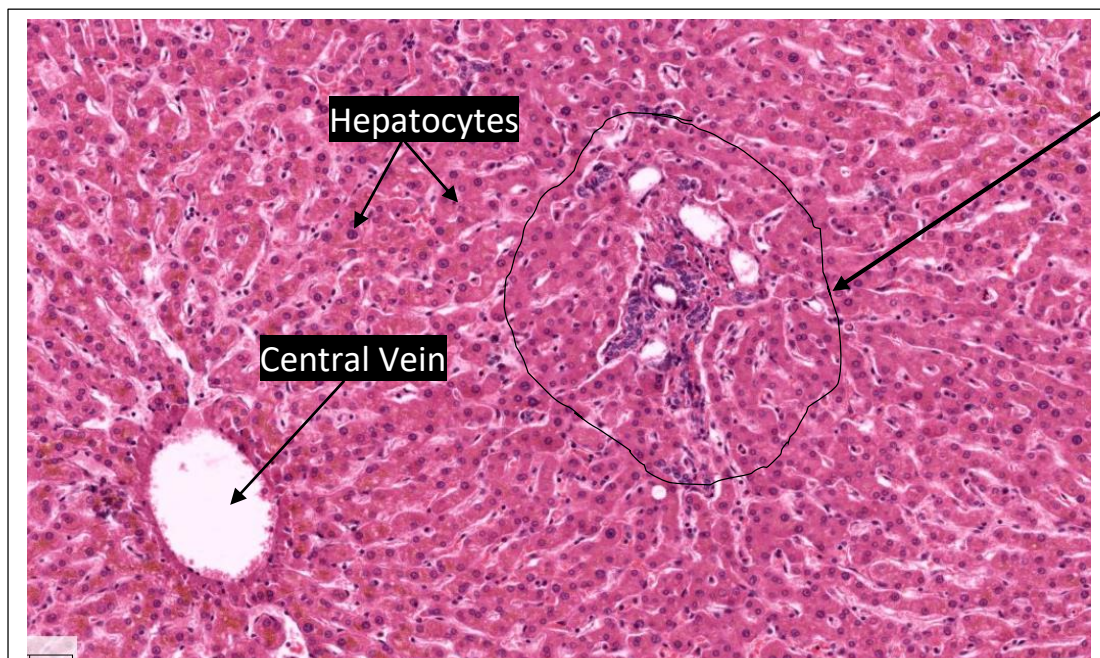
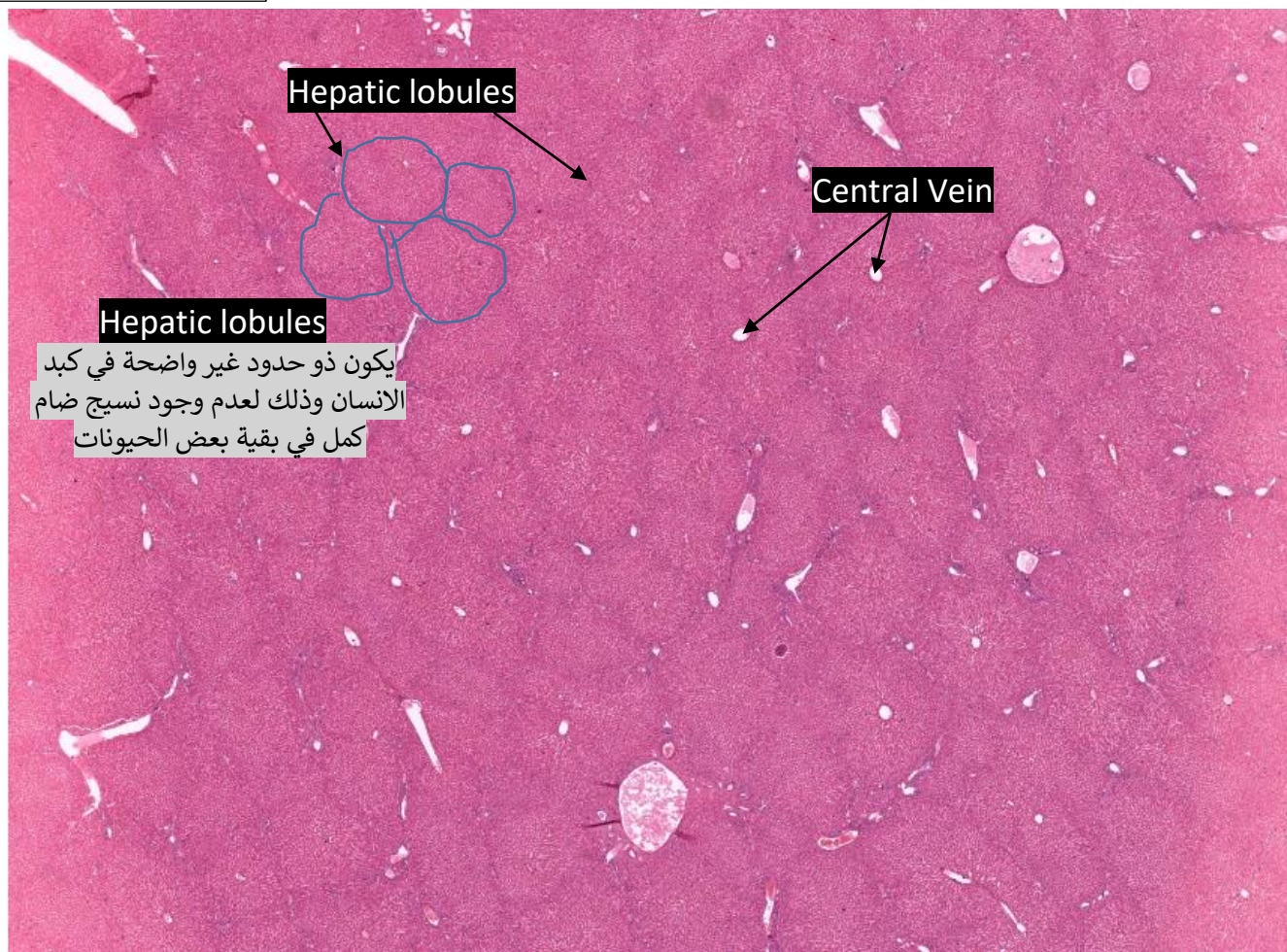
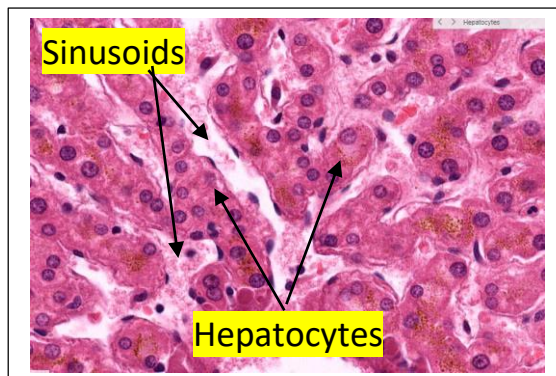


## Liver (MH126b)



### Sinusoids

تكون بين الخلايا الكبدية  
وتحتوي على  
RBC



### Portal Triads

يحتوي

Portal Venule

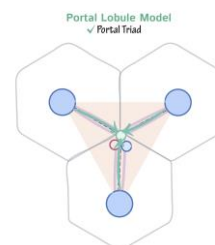
Bile Ductules

Lymphatic Vessels

يوجد في منتصف المثلث بين

اغلب كل ثلاثة فصوص

تابع المخطط





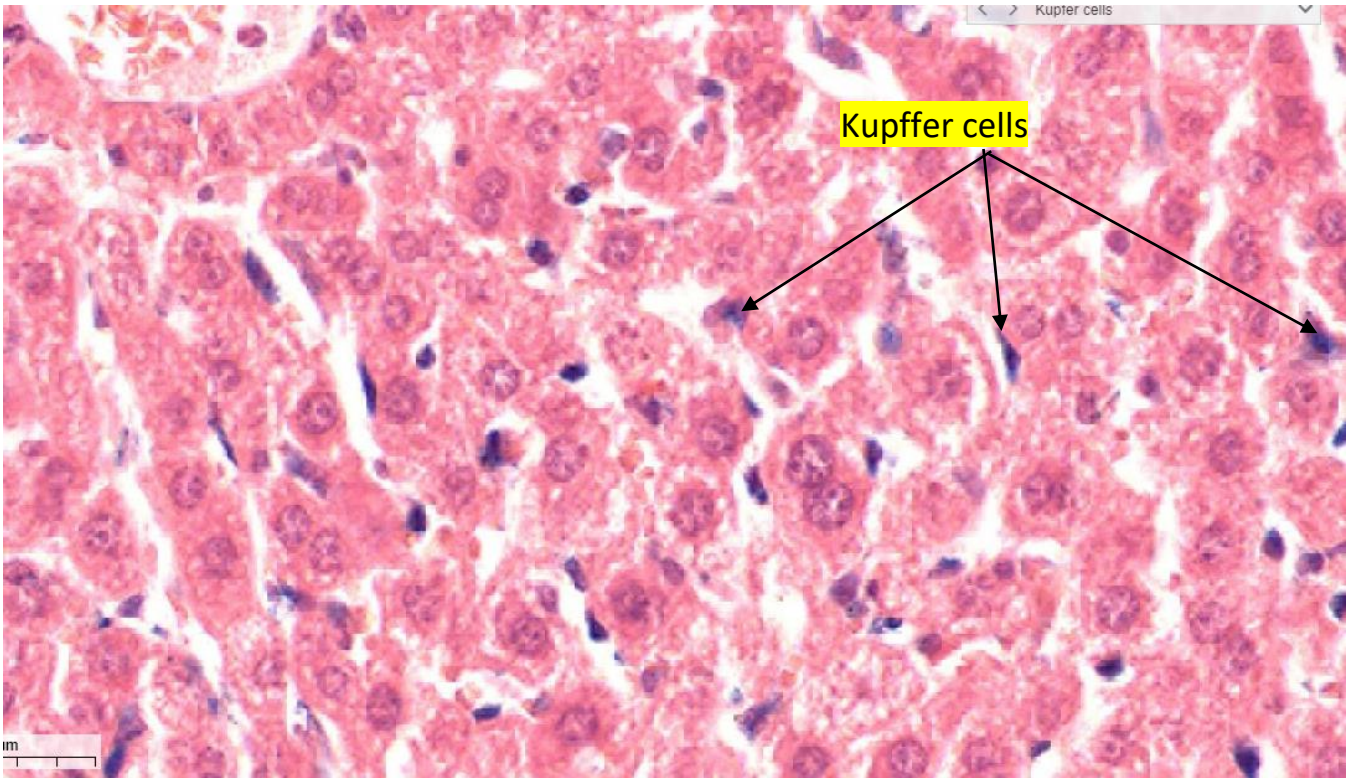
## Kupffer cells

MMC 2019 || By Fahad A.

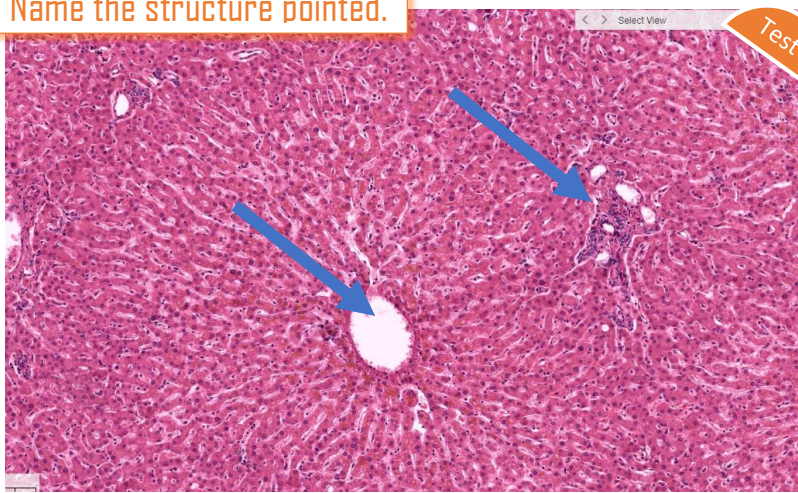
لاحظ هي خلايا ليست دائرية وتوجد قريبة من

### Sinusoids

ويتم صبغها بصبغة معينة لتظهر



Name the structure pointed.



**Question:** What is the main functions of kupffer cells?

Apart from clearing any bacteria, red blood cells are also broken down by phagocytic action.

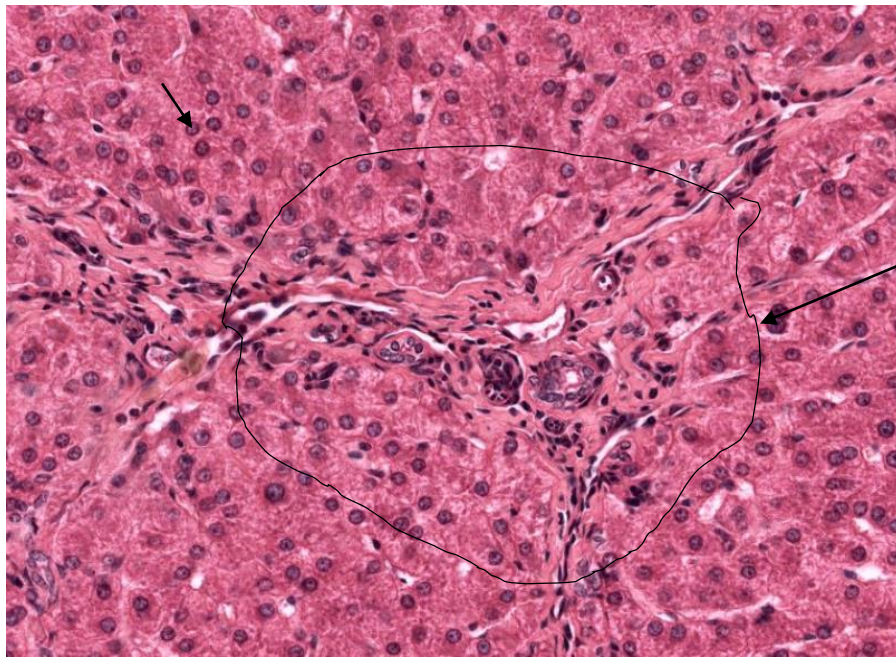
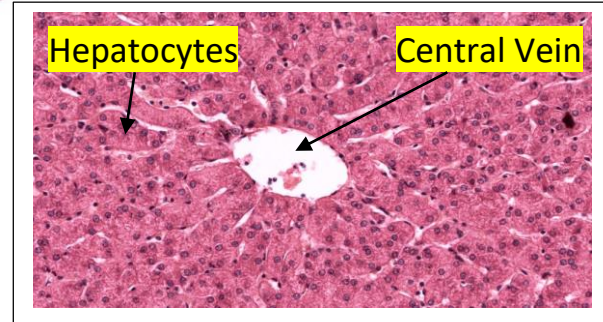
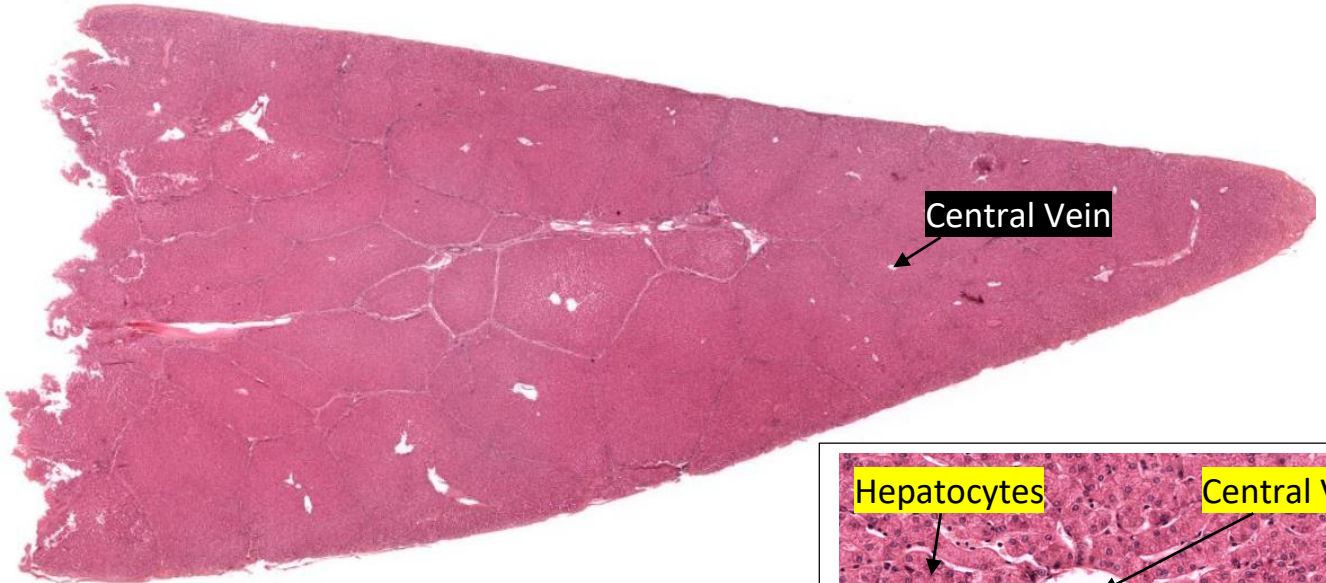
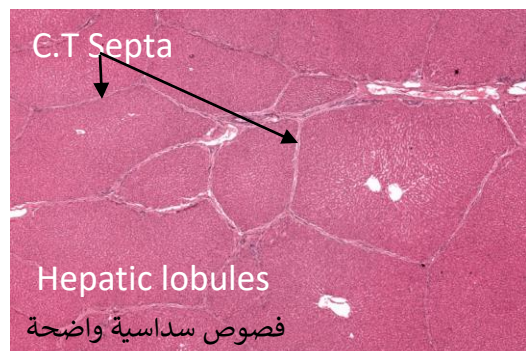
Name the structure pointed.





## Liver of pig (MHS206)

مثال لنسيج كبد الخنزير نفس التركيب لكبد  
الانسان عدا ان الفصوص تكون واضحة ل  
احتواها على نسيج ضام



يحتوي

Portal Venule

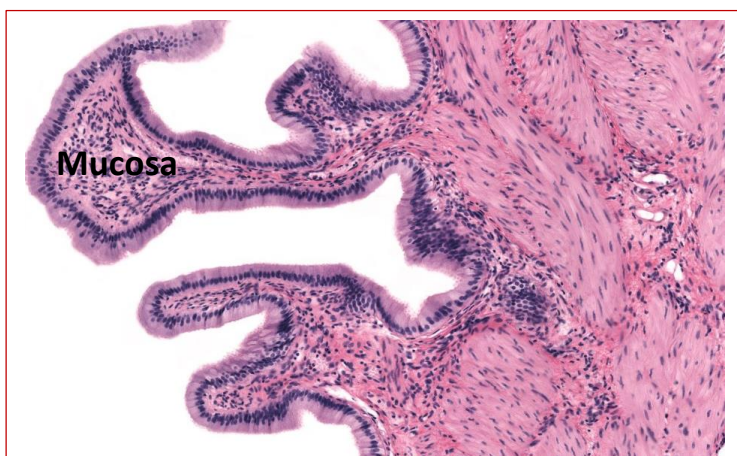
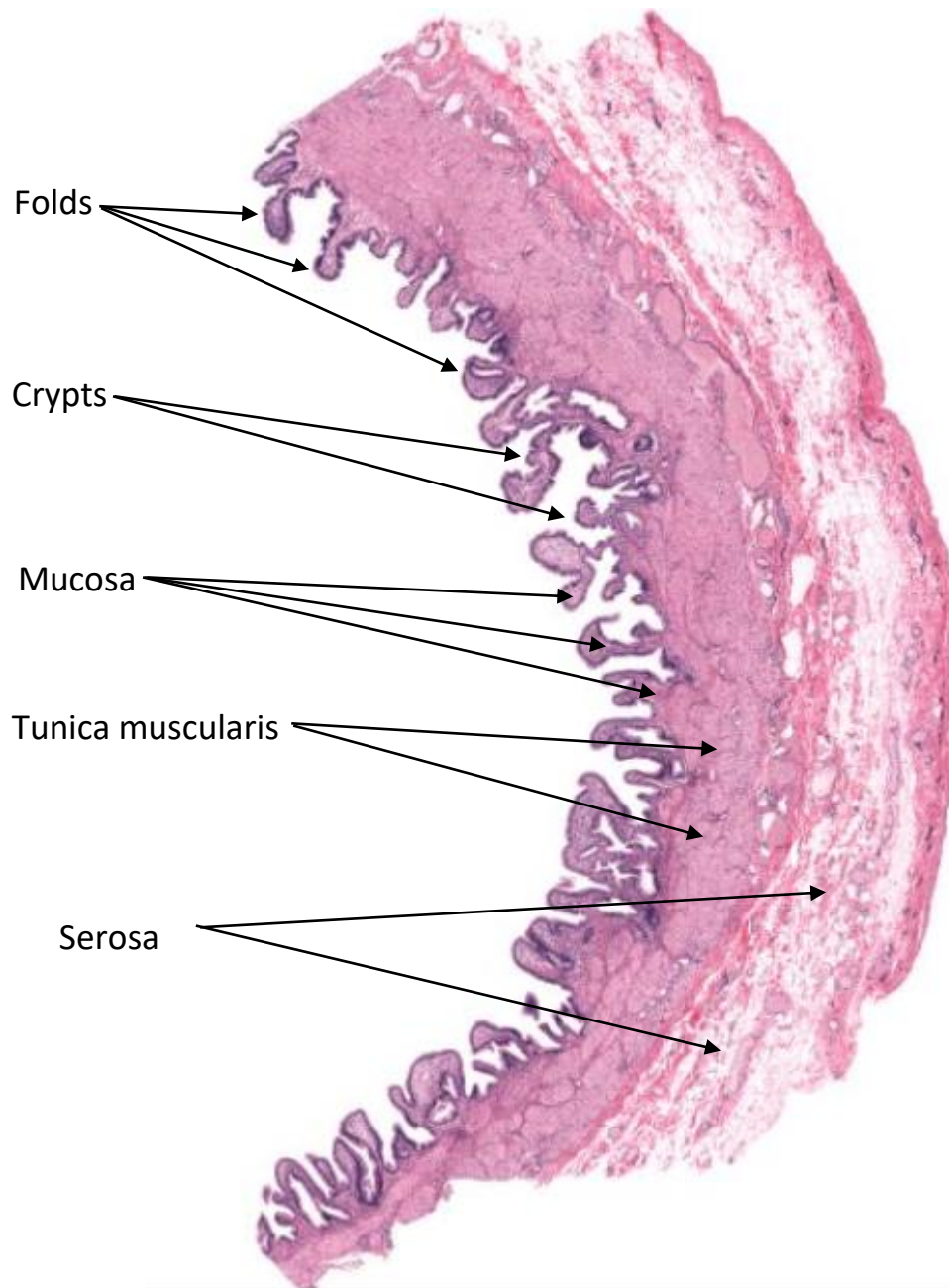
Bile Ductules

Lymphatic Vessels

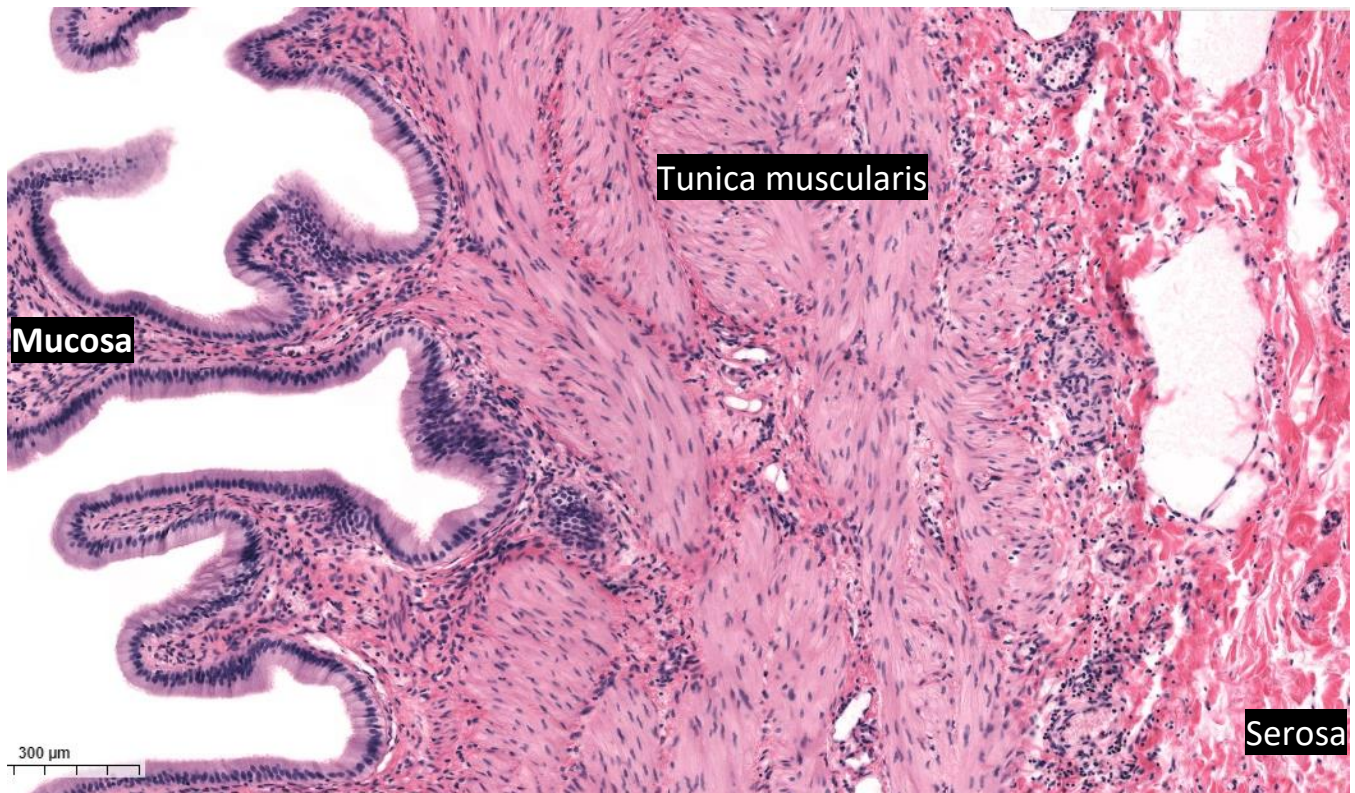
يوجد في منتصف المثلث بين

اغلب كل ثلاثة فصوص

### Gall Bladder (MH130b)







#### Notes from Histology Guide website

**Mucosa (or mucous membrane)** - the empty bladder has numerous deep folds (or rugae) often resulting in the appearance of cross bridges

**Simple Columnar Epithelium** - similar in appearance to absorptive cells in the intestines

**Lamina Propria** - dense irregular connective tissue that supports the epithelium. It is rich in fenestrated capillaries and small venules

**Tunica Muscularis** - randomly oriented bundles of smooth muscle containing numerous collagen and elastic fibers. Its contraction results in emptying of the gallbladder

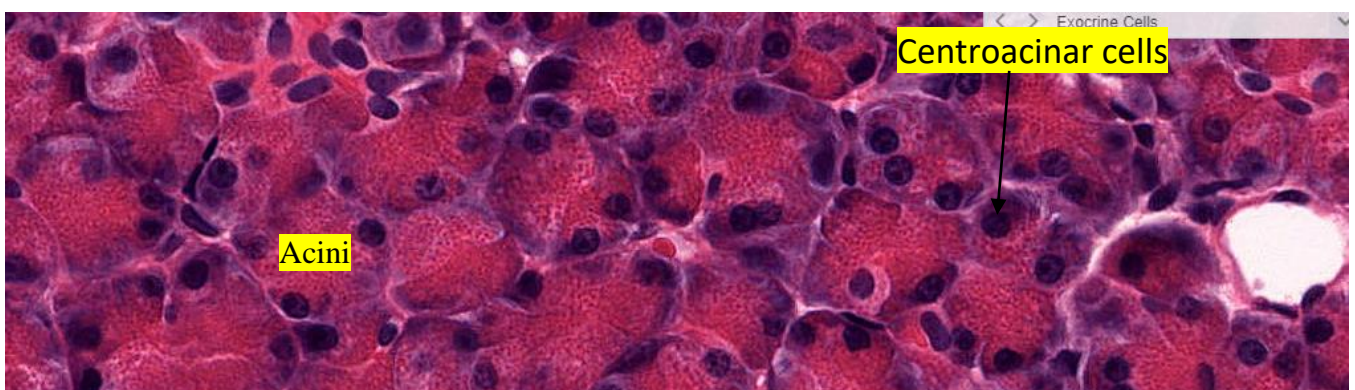
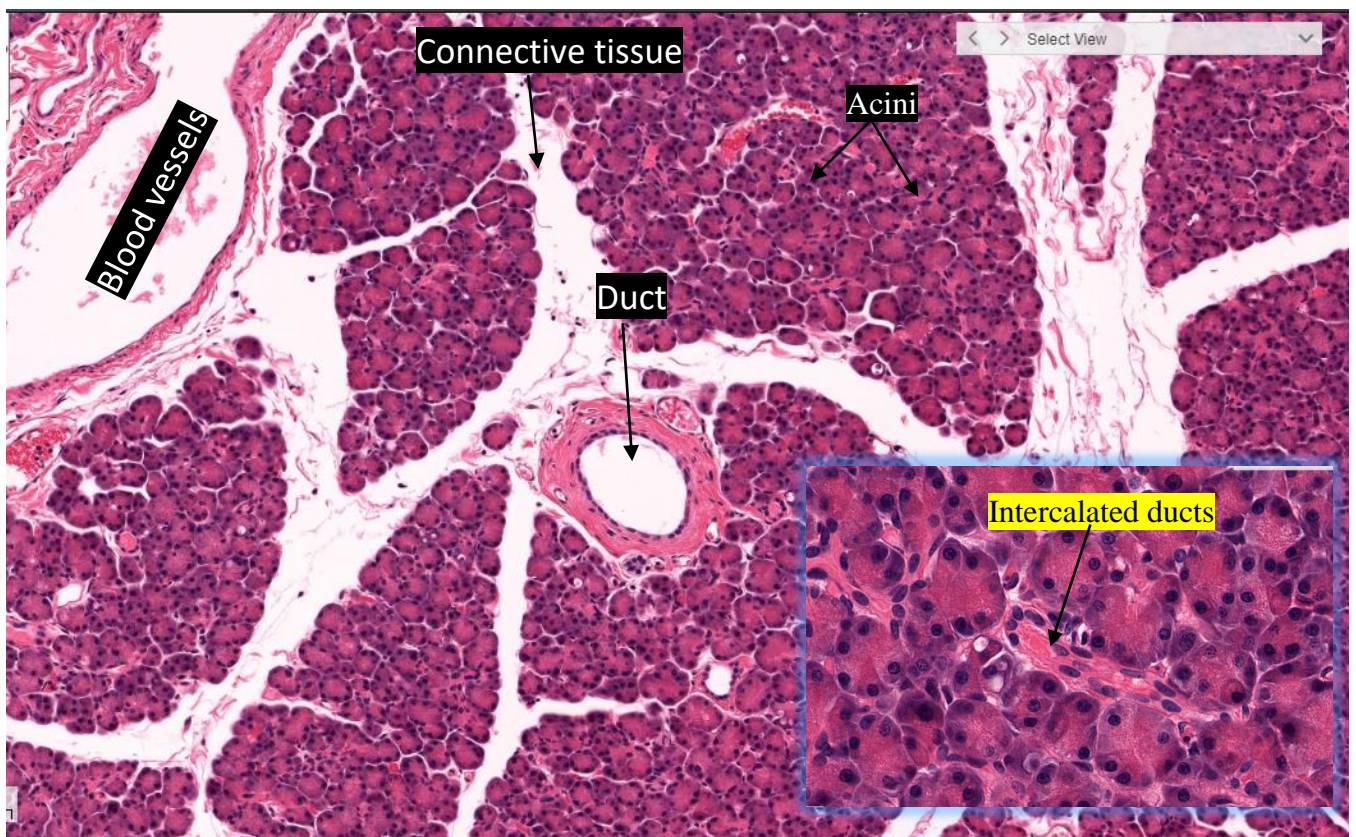
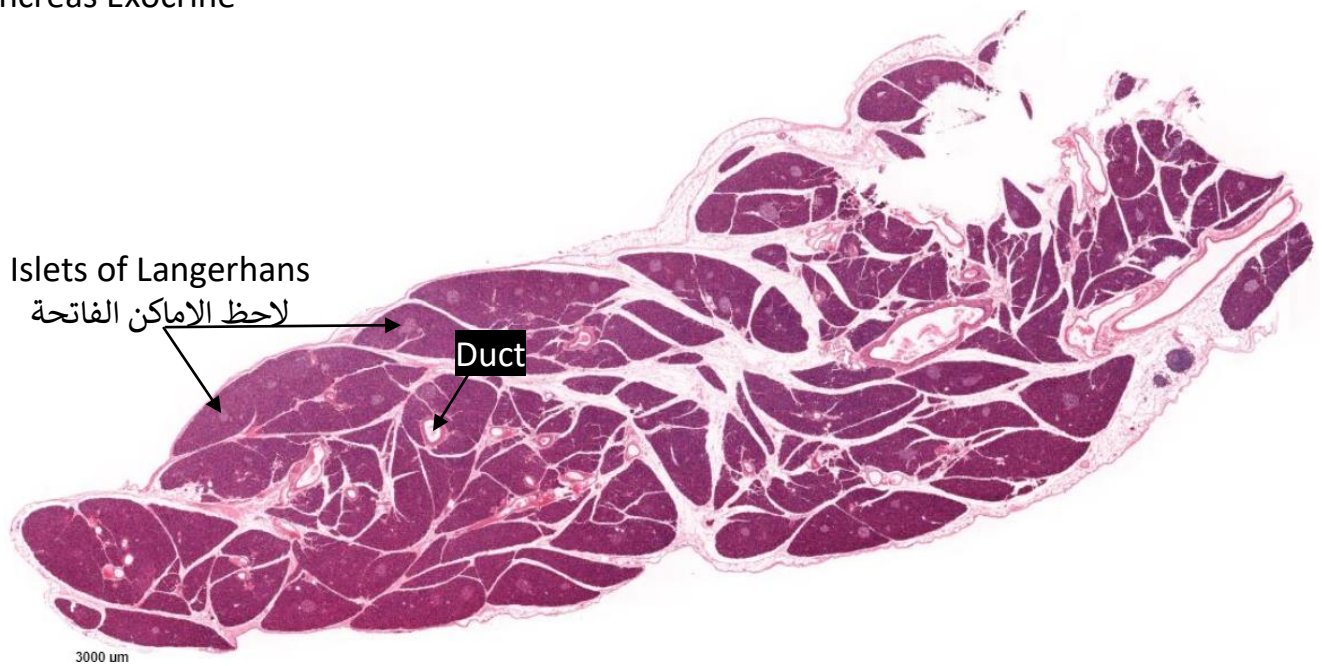
**Outer Layer of Connective Tissue** - composition depends on its location

**Serosa** - where the gallbladder is unattached to the liver. It is composed of a surface layer of mesothelium supported by loose irregular connective tissue



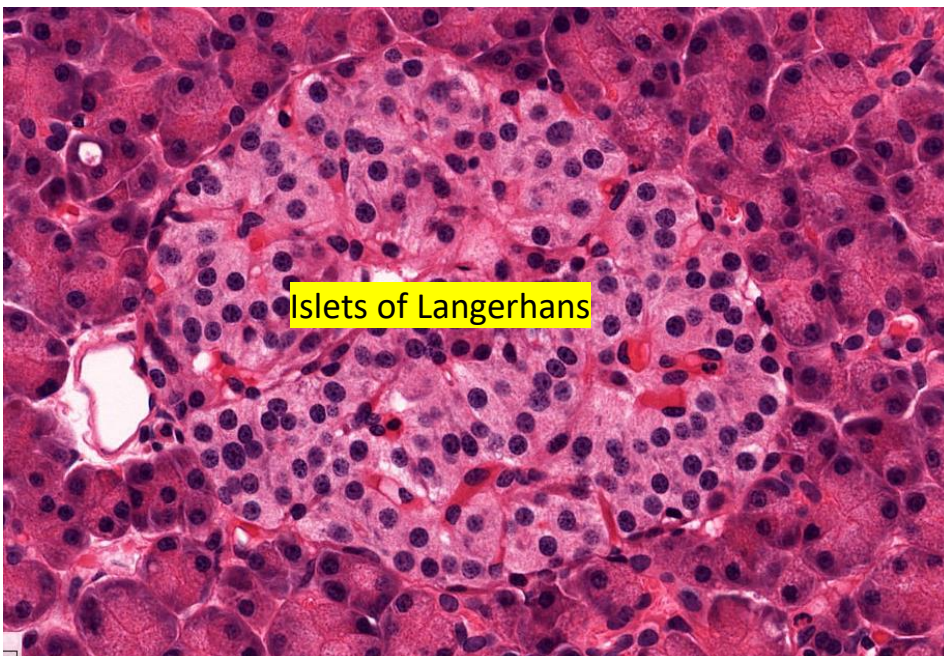
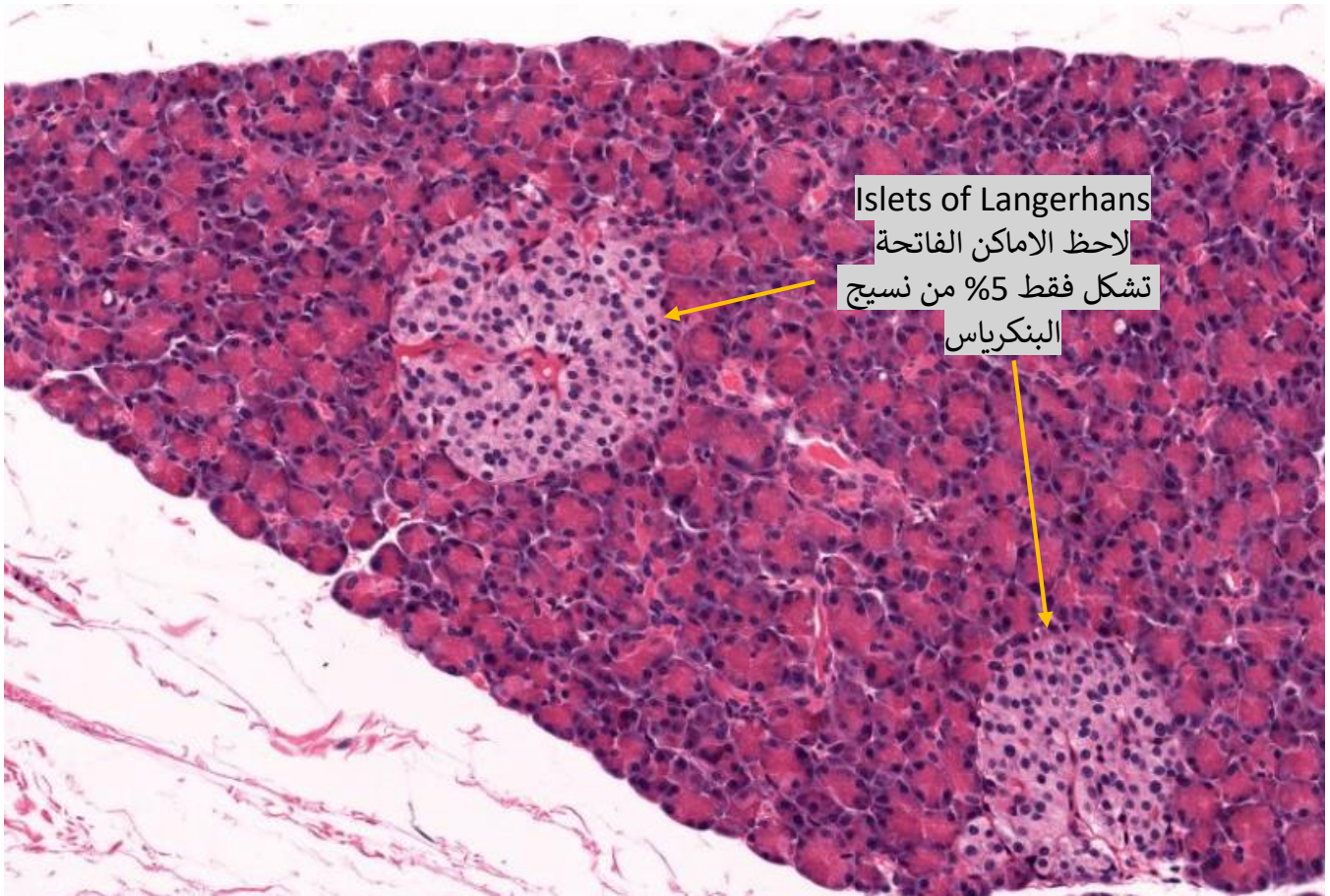
## Pancreas (MHS211)

### Pancreas Exocrine





## Pancreas Endocrine



### Islets of Langerhans

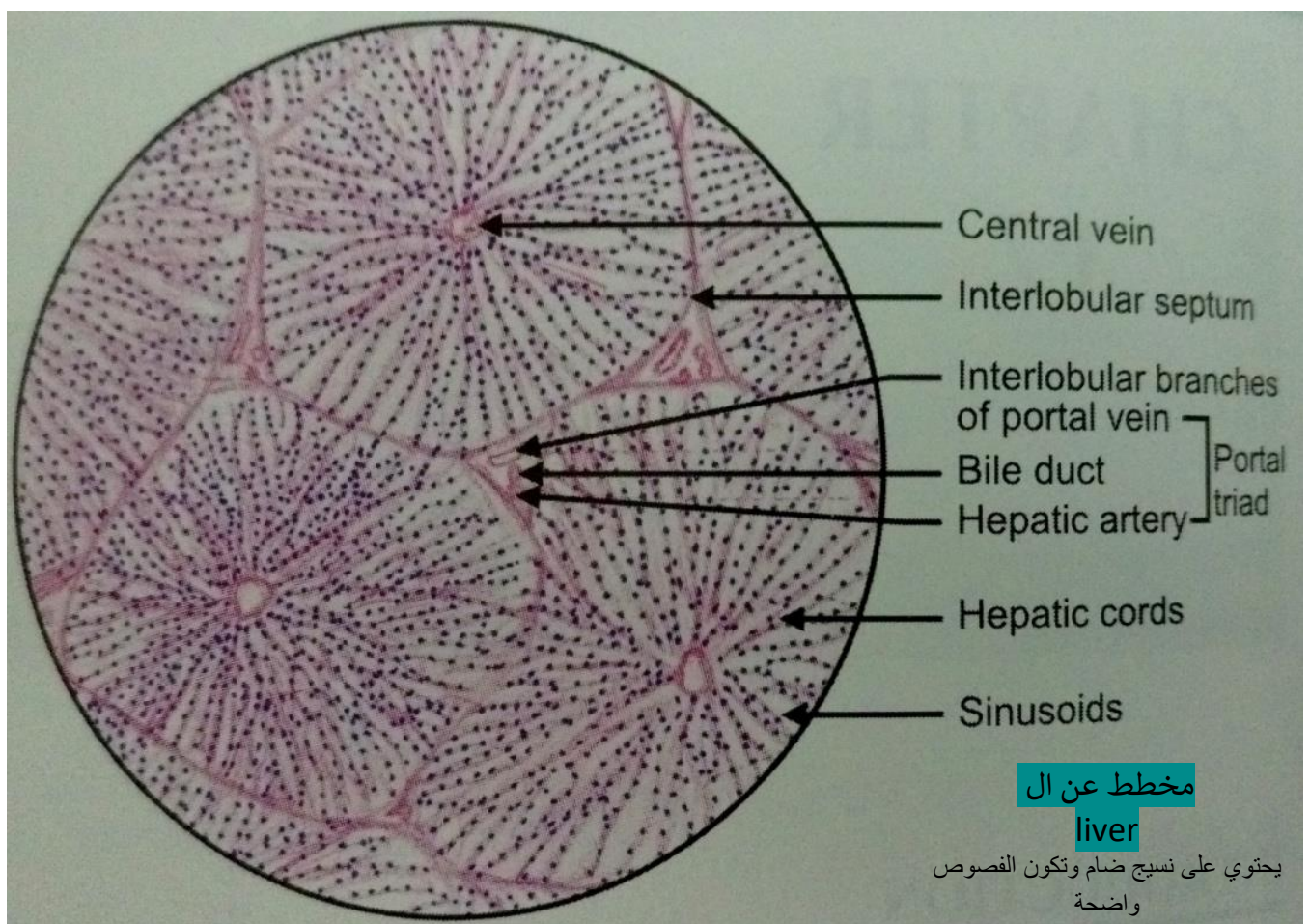
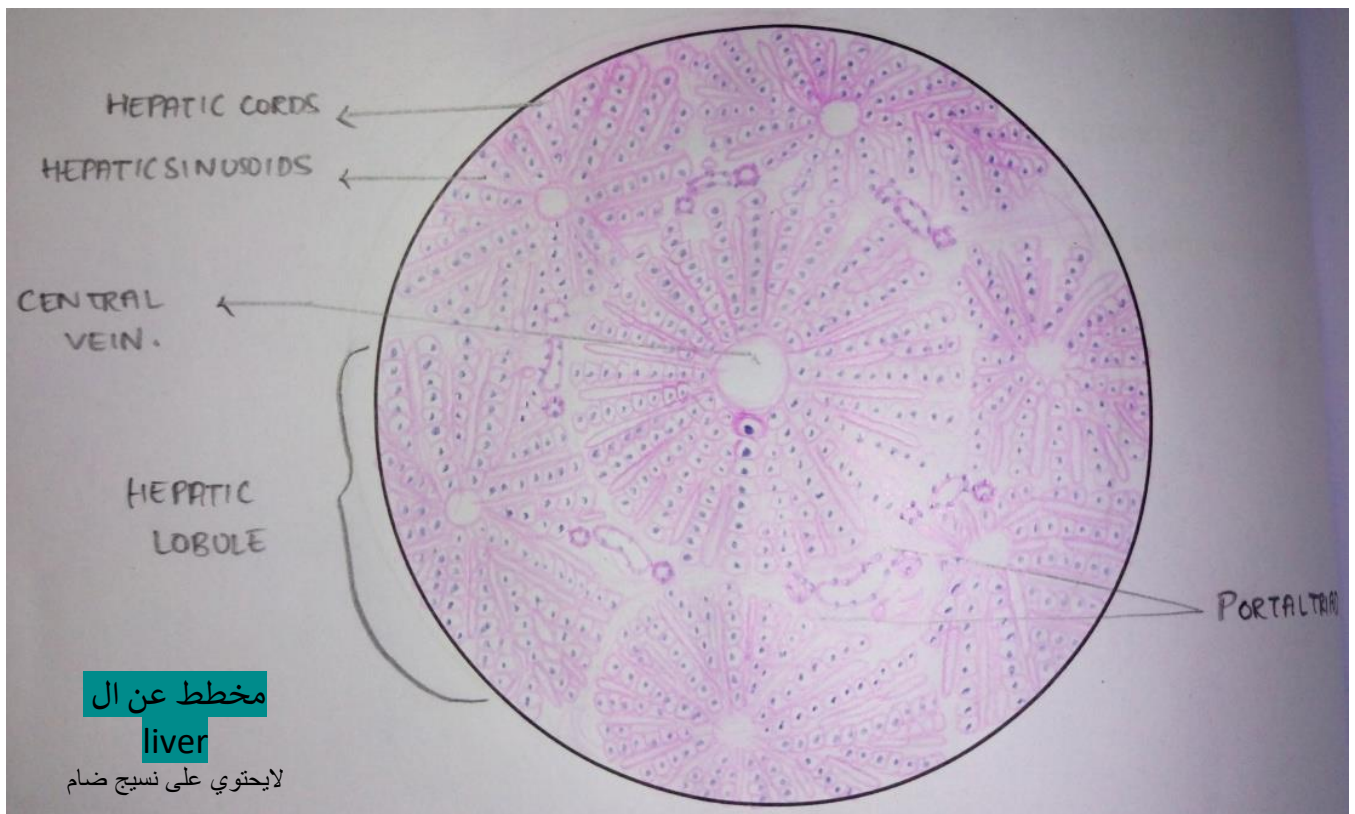
بالنسبة لتوزيع خلايا الفا وبيتا

خلايا الفا - تكون قريبة من الحافة  
 صبغتها اكثر

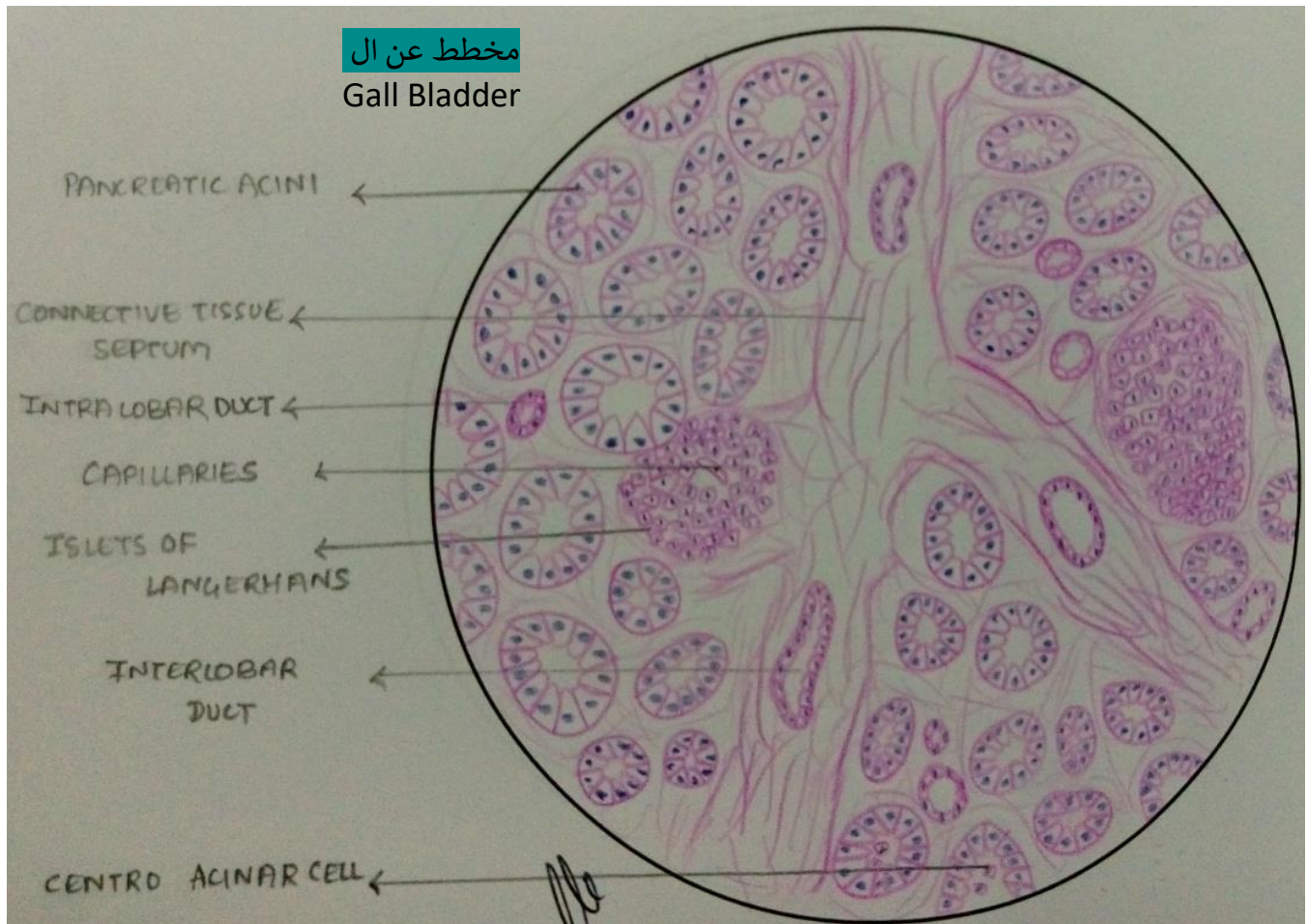
خلايا بيتا - تكون غالبا في  
 المنتصف بصبغة اقل واكثر عدد



بعض المخططات المفيدة في المختبر :-







**Question:** what are the main difference between the pancreas and parotid gland?

THIS SLIDES FROM HISTOLOGYGUIDE WEBSITE.