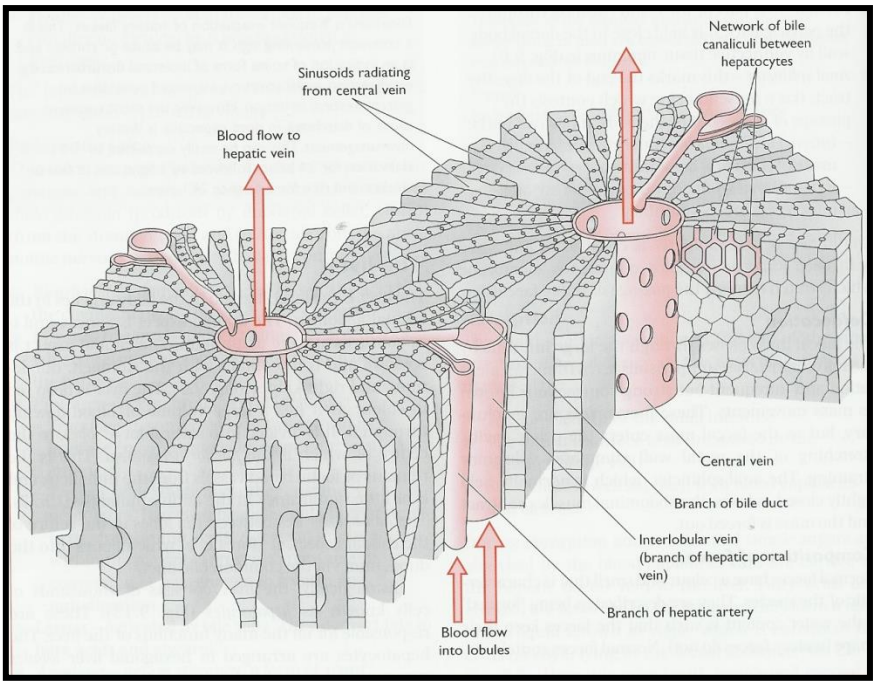
Microscopic Structure of the Liver:



Functions Carbohydrate metabolism:

- Glucose is a source of energy for the body.
- When there are high levels of glucose in the blood, insulin is secreted by the pancreas.
- Insulin converts the glucose to glycogen to be stored in the liver.
- This process is known as glycogenesis.
- When glucose levels are low, glucogon is secreted from the pancreas.
- The glucagon acts on the glycogen to release the glucose and therefore raise the glucose levels.
- This process is known as glycogenolysis.
- The opposing actions of insulin and glucagon maintain glucose levels within the body.

The digestive system (hind gut fermenters)

The nutrition model that is used for hind gut fermenters (HGF) is the horse – since apart from the rabbit, it is the most widely researched HGF. Food is digested in the stomach & intestines as for the typical single stomached (monogastric) animal. To process fibre, HGF's have variations to 'normal' gut structure. This is either; an enlarged caecum for fermentation (e.g. rabbit and koala) or A Voluminous colon for fermentation (e.g. equines, rhinos, elephants & wombats).

The horse:

- Foregut; Stomach, Small intestine.
- Hindgut; Caecum, Large colon, Small colon, Rectum.
- Can't vomit or belch strong cardiac sphincter muscle.
- Fast eaters.
- Continuous feeders.
- In natural environment and sometimes in domestic environment.
- Stomach never completely empty.