

Lecture 10: The liver, kidneys, and the endocrine system

■ The liver

- Surrounded by double membrane (the glisson capsule)
- The liver joins to the stomach after transport of proteins and large macromolecules to and from cells
 - Made of ~100,000 hepatocytes
- The liver manages inputs

■ Kidneys

■ Endoplasmic Reticulum

- Continuous with nuclear envelope
 - Lumen internal space
- Smooth ER
 - Ribosome-free
 - Rich in metabolic enzymes
 - Large proportion in specialised cells
 - Synthesis of lipids
 - Modification of carbohydrates
 - Detoxification of drugs and poisons
 - Calcium sequestration
- Rough ER
 - Ribosomes on outside
 - Secreted proteins