

Lecture 11: The liver, kidneys, and the Endocrine System

1. The liver

- Surrounded by double membrane (the plasma membrane)
- The two parts to the membrane allow transport of proteins and large macromolecules in and out of cell
 - Made of ~100 proteins
- The liver manages lipids

2. Kidneys

3. Endoplasmic Reticulum

- Continuous with nuclear envelope
 - Forms 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
 - Synthesised proteins