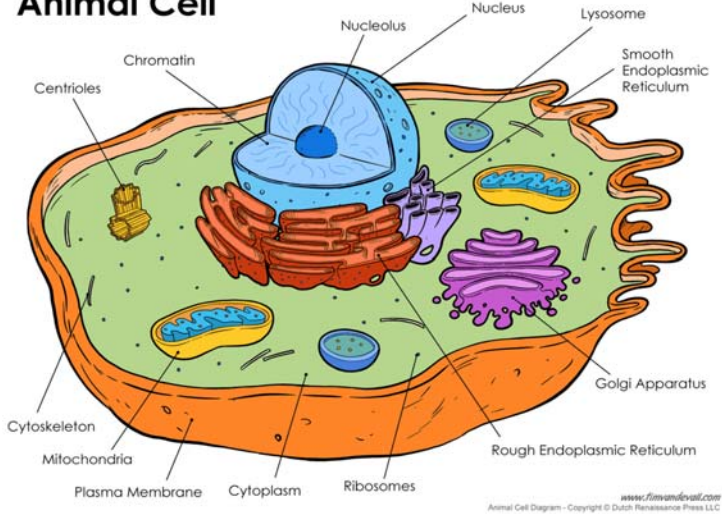


Animal Cell

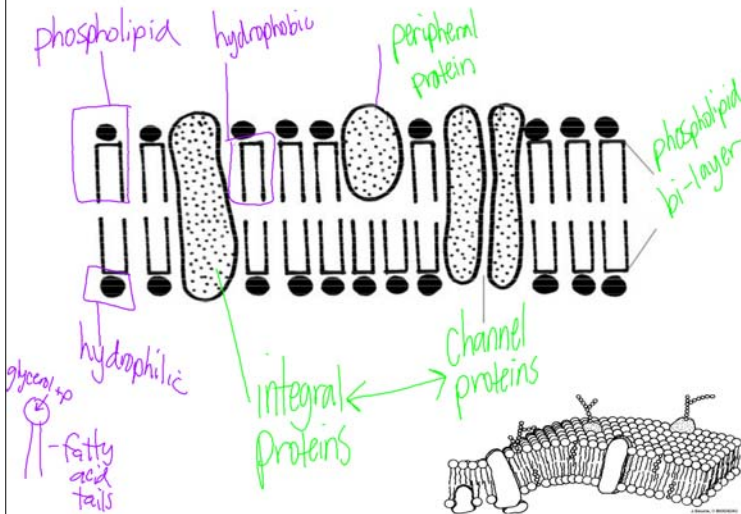


EUKARYOTES

Structures in ALL Eukaryotic cells:

- Nucleus
- Ribosome
- Endomembrane System
 - ER (smooth & rough)
 - Golgi apparatus
 - Vesicles
- Mitochondria
- Cytoskeleton

PLASMA MEMBRANE



NUCLEUS

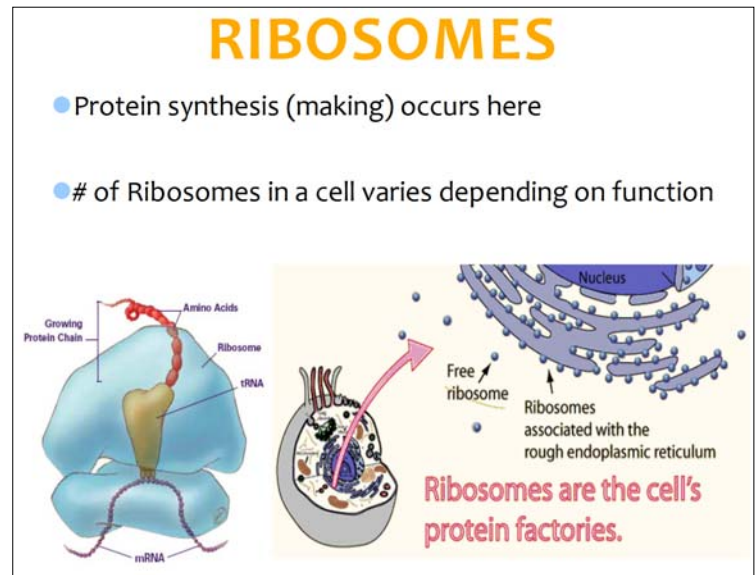
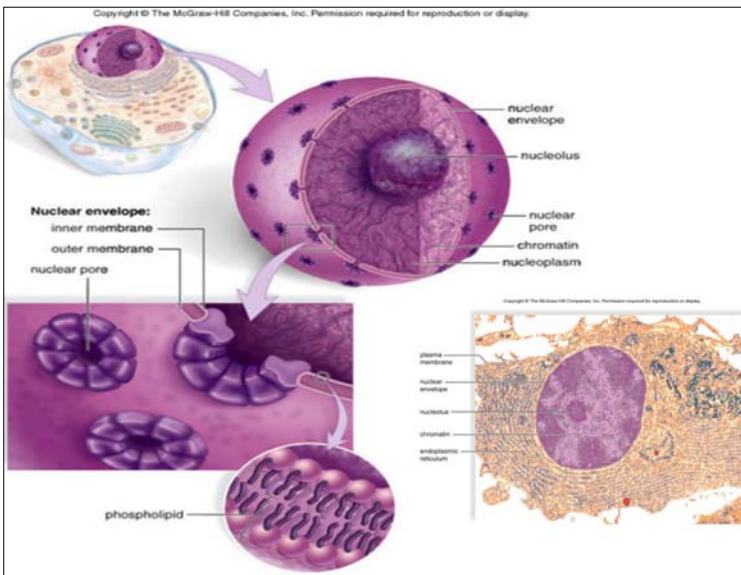
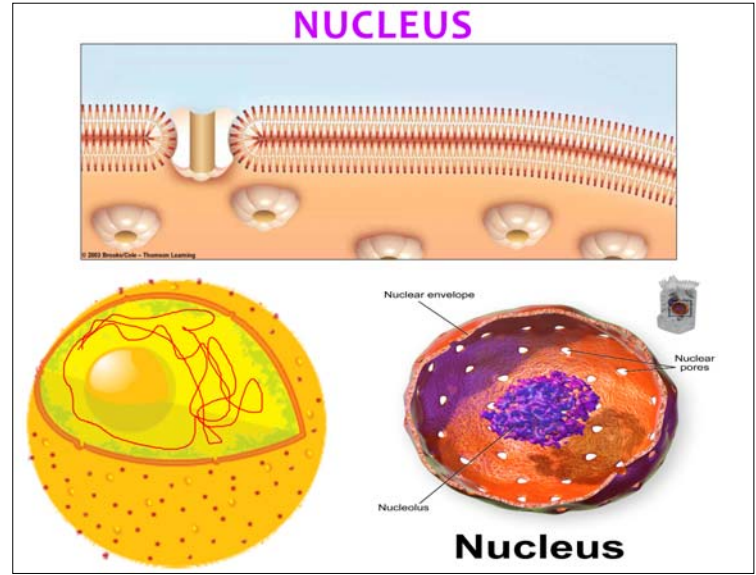
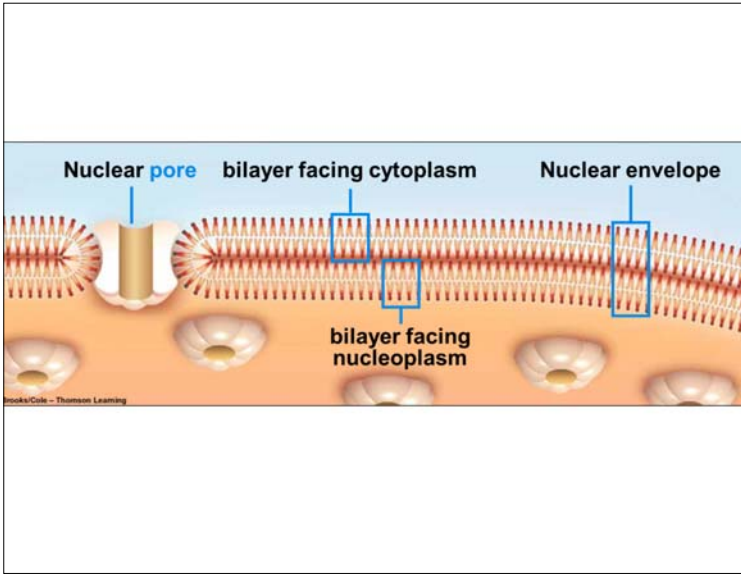


Nucleus contains DNA in the form of **chromatin** (stringy DNA)

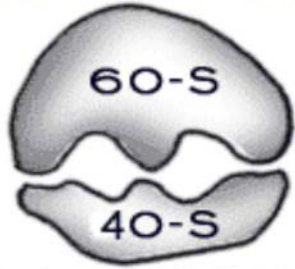
Enclosed by a Nuclear Envelope (2 phospholipid bi-layers)

Nuclear Envelope has **pores**

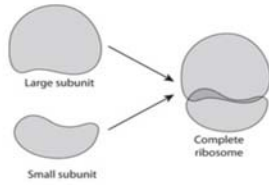
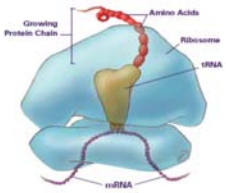
- Allows ribosomes to move out to cytoplasm (free) or Rough ER (attached)



BioMed: RIBOSOME SUBUNITS

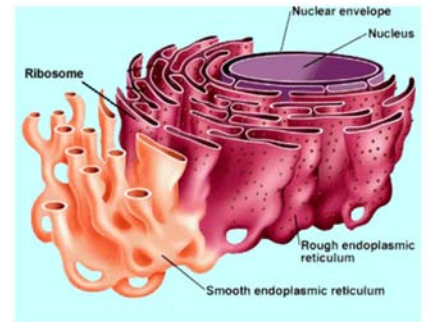


TWO SUBUNITS



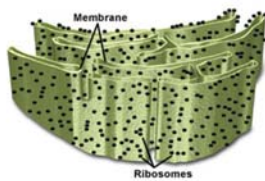
ENDOPLASMIC RETICULUM (ER)

- Attached to the Nucleus
- Transport System for assembling proteins (Highway)
- 2 Types:
 - Rough ER
 - Smooth ER



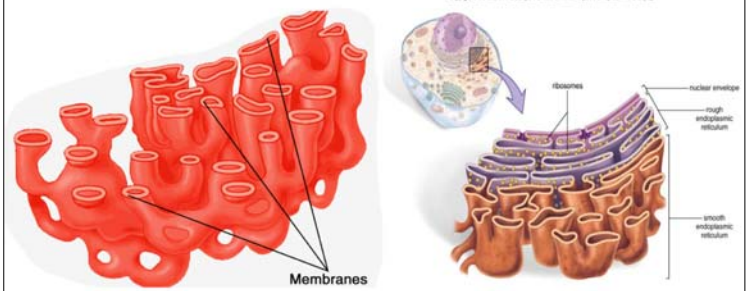
Rough ER

- Membrane is in waves (maze)
- Has Ribosomes
 - Gives ER "Rough" Appearance
- Works in **Protein Synthesis** (making a protein)
- Transports newly assembled proteins to Golgi Apparatus in a transport vesicle



Smooth ER

- Membranes in Tubular Form
- No Ribosomes
- Mostly contains enzymes for **lipid synthesis**



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