



Definition of The Cell

Examples of Cells

Types of Cells

Cell Parts Organelles Surrounding the Cell

Cell Parts Organelles Inside the Cell

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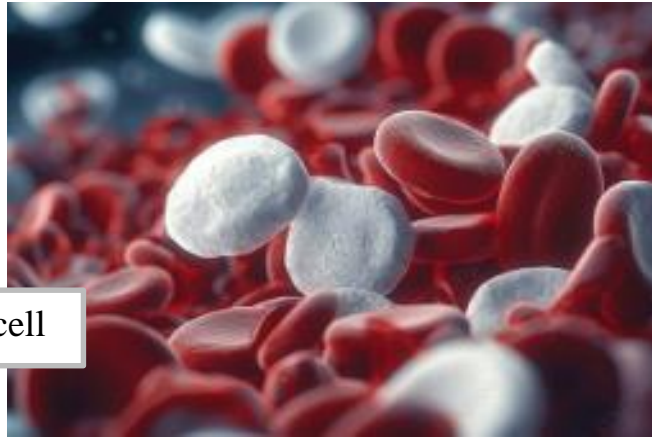


Definition of The Cell

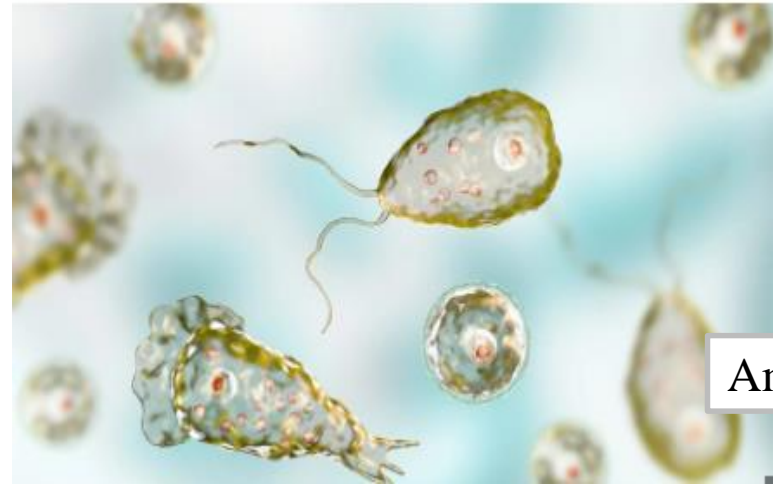


The cell define as the fundamental structural and functional unit of all living organisms
And called the” building blocks of life”

Examples of Cells



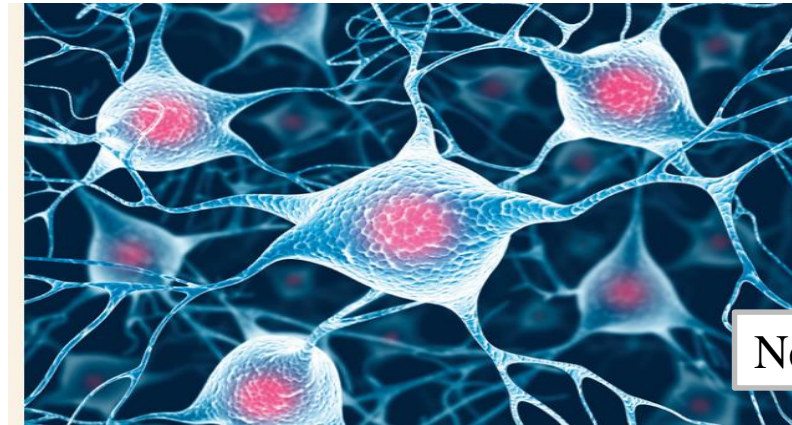
Blood cell



Amoeba



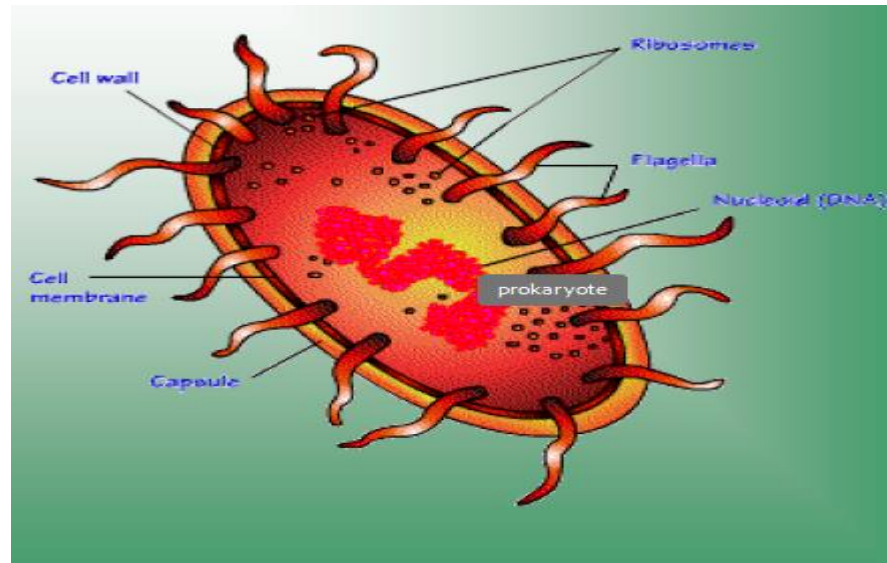
Bacteria



Nerve cell

Types of Cells

Prokaryotic



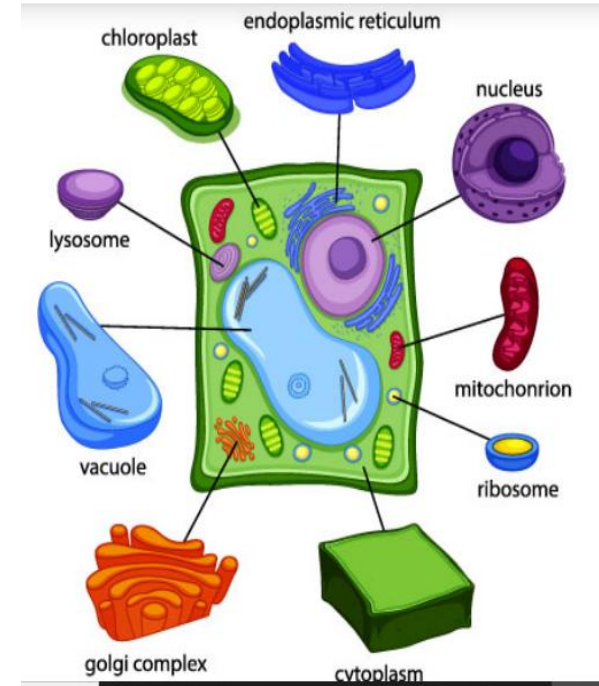
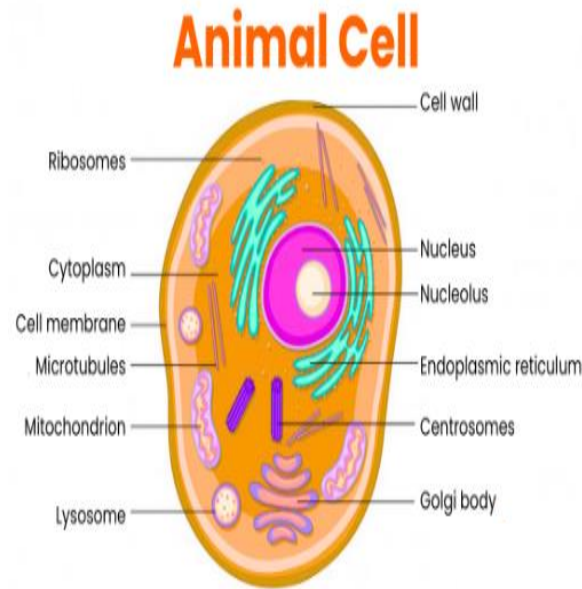
Simplest type of cell (One-celled organisms)

Which lack nucleus and do not have structures surrounded by membranes – single circular chromosome.

Includes Bacteria

Types of Cells

Eukaryotic



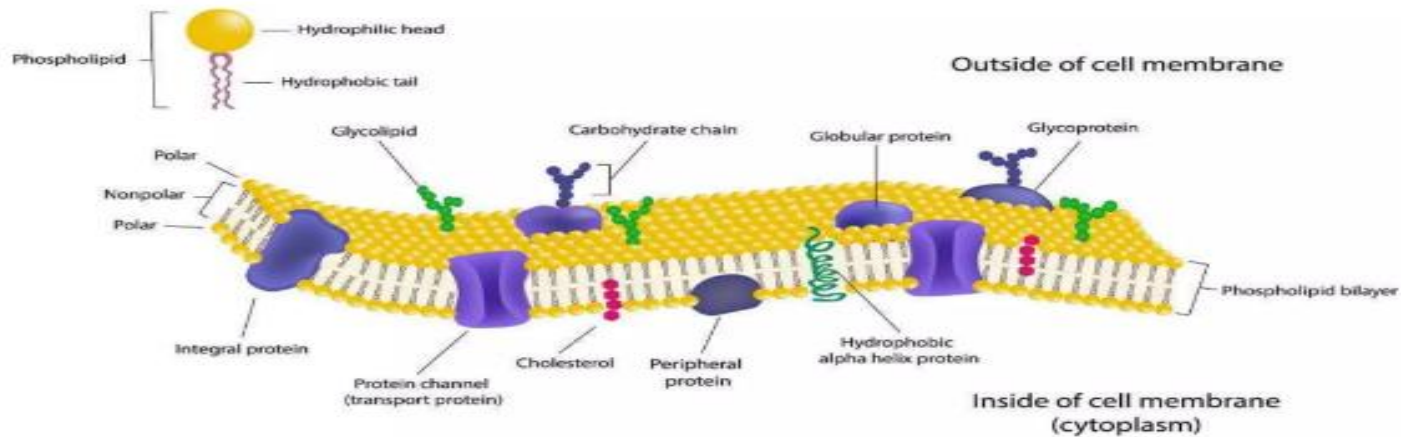
plant cell

- cells that have a nucleus and organelles surrounded by membranes includes most living organisms

Cell Parts Organelles Surrounding the Cell

Cell Membrane

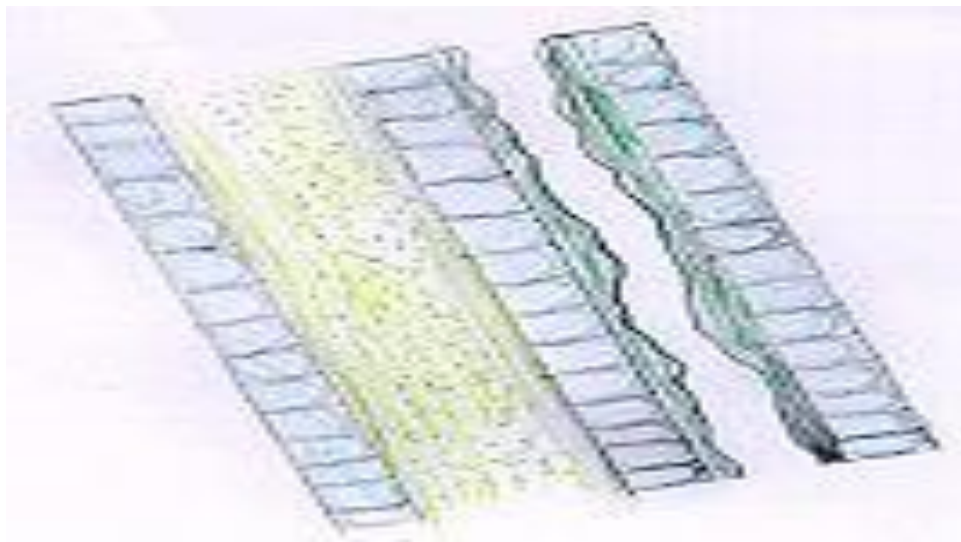
- Outer membrane which surround the cytoplasm of the cell and controls movement in and out of the cell
- Made up of lipid bilayer which contains (lipid molecules – phospholipids- cholesterol – glycolipids)



Cell Parts Organelles Surrounding the Cell

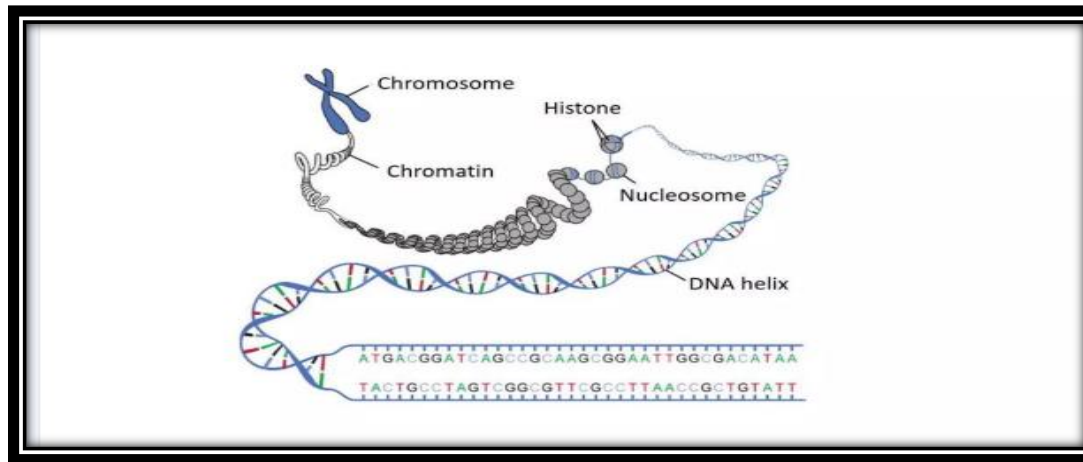
Cell Wall

- Most commonly found in plant cells
- Supports & protects cells



Nucleus

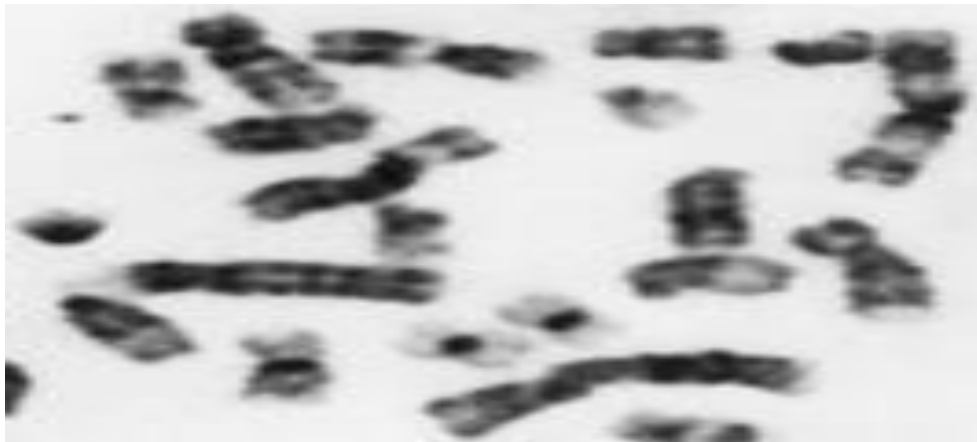
- Directs cell activities
- Separated from cytoplasm by nuclear membrane
- Contains genetic material – DNA



Cell Parts Organelles Inside the Cell

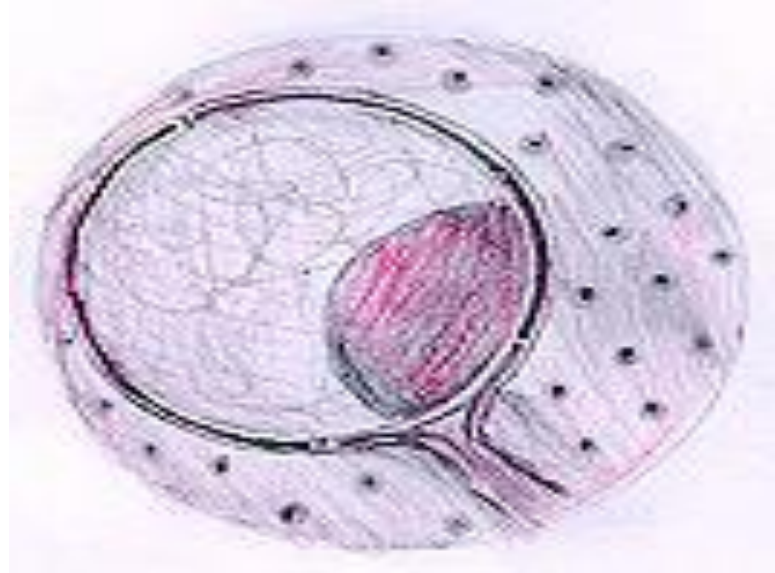
Chromosomes

- In nucleus
- made of DNA
- contain instructions for traits & characteristics



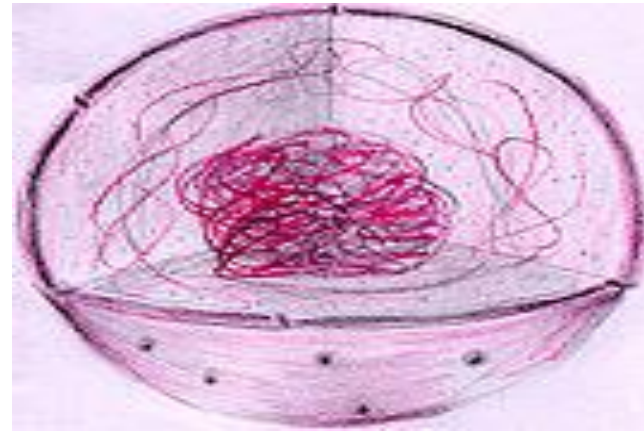
Nuclear Membrane

- Surrounds nucleus
- Made of two layers
- Openings allow material to enter and leave nucleus



Nucleolus

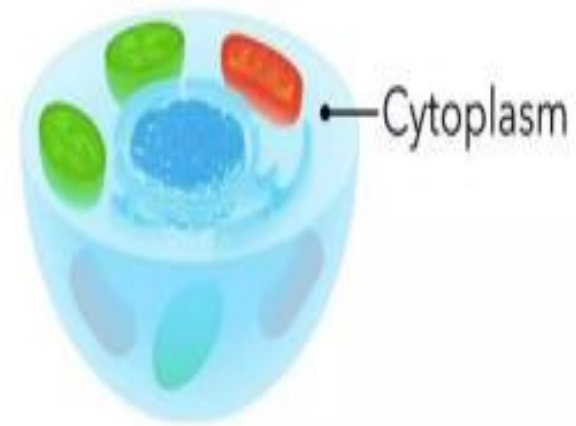
- A region of the nucleus that is responsible for manufacturing the RNA necessary for production of ribosomes



Cell Parts Organelles Inside the Cell

Cytoplasm

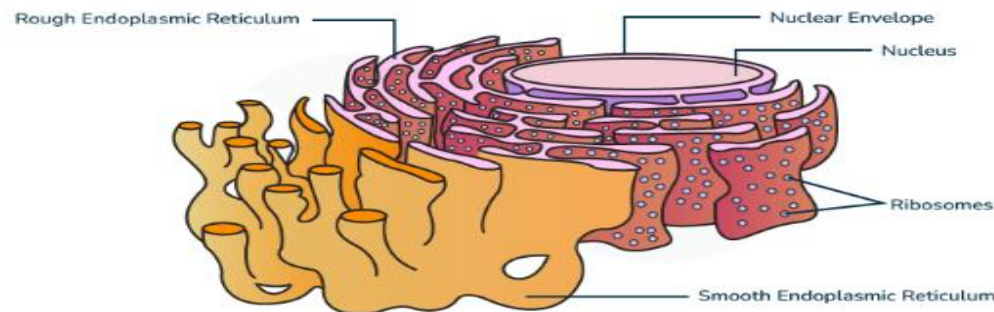
- gel-like mixture
- surrounded by cell membrane
- contains hereditary material



Cell Parts Organelles Inside the Cell

Endoplasmic Reticulum

- It provides passages throughout the cell for transporting , synthesizing , and storing materials .
- Moves materials around the cell
- Smooth type: lacks ribosomes
- Rough type : ribosomes embedded in surface



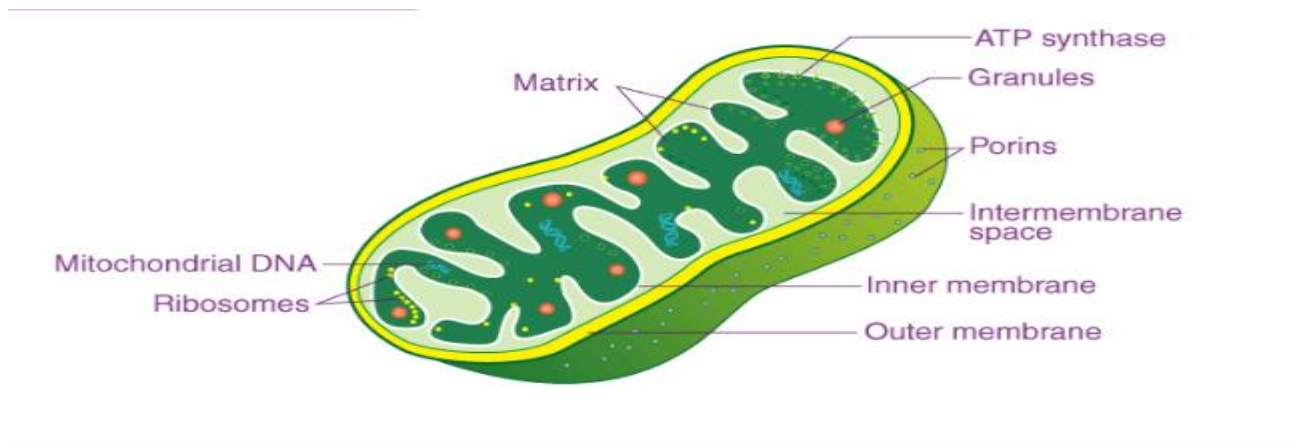
Ribosomes

- Ribosome : It is the site of protein synthesis , it can be found free flouting in the cytoplasm or attached to the rough ER.
- Each cell contains thousands.
- Make proteins



Mitochondria

- Produces energy by converting oxygen and nutrients to (ATP)
- Controls level of water and other materials in the cell



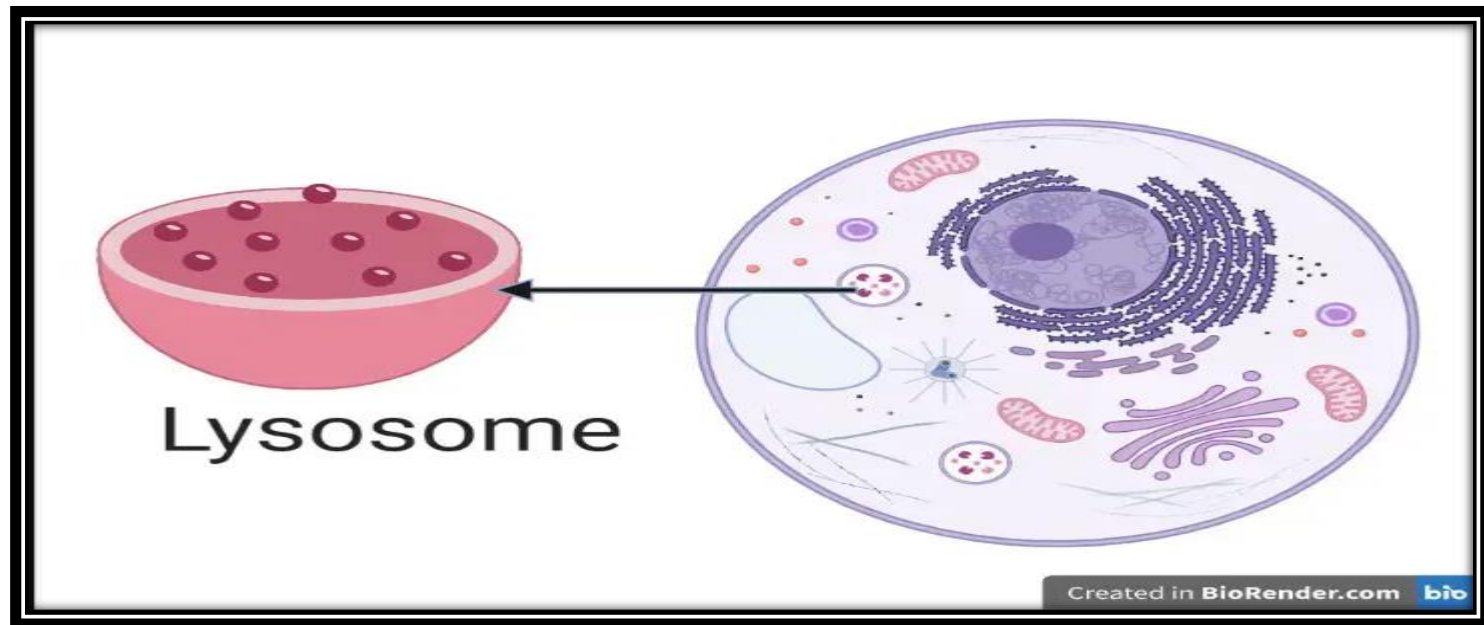
Golgi apparatus

- Protein 'packaging plant'
- move materials within and out of the cell



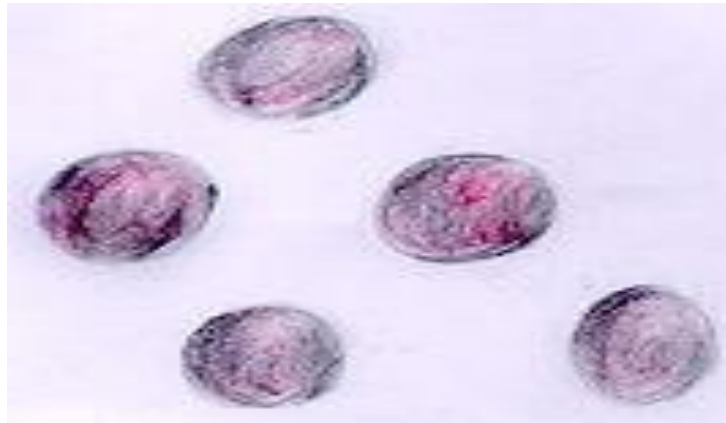
Lysosome

- The lysosome is a membrane-bound cell organelle. It consists of the digestive enzyme, which digests the different intracellular and extracellular particles.



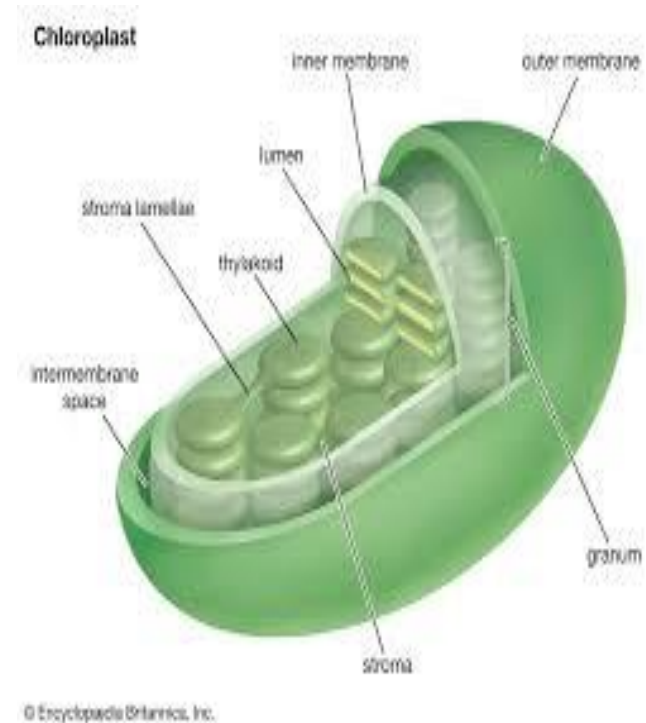
Vacuoles

- Membrane-bound sacs for storage, digestion, and waste removal
- Contains water solution
- Help plants maintain shape



Chloroplast

- usually found in plant cells
- contains green chlorophyll
- where photosynthesis takes place



Thanks