

mitochondria

- powerhouse of the cell
- releases ATP (Adenosine triphosphate)
- have 2 membrane coverings
- can make protein
- have their own DNA and ribosomes

lysosomes

- waste disposal system
- digests foreign material
- contain powerful digestive enzymes
- known as 'suicide bags of a cell'

golgi apparatus

- system of membrane bound vesicles arranged parallelly in stacks called cisterns.
- used for storage, modification and packaging of products

plastids

- present in plant cells. Chromoplasts
- Leucoplasts
- chloroplasts contain chlorophyll
- leucoplasts contain starch, oils and protein granules
- structure similar to mitochondria
- have their own DNA

vacuole

- storage sac
- small in animals; large in plants
- in plant cells, they store cell sap
- have amino acids, sugars, organic acids and some proteins

PARTS OF a CELL

Smooth

Rough

endoplasmic reticulum

- extends throughout cytoplasm
- serves as a channel for transport
- a cytoplasmic framework, providing surface for biochemical activities

a cell is the smallest functioning unit that carries out life processes

cytoplasm

- fluid inside cell membrane
- contains cell organelles

cell wall

- hard covering of cell
- made of cellulose
- provides structural strength to plants

nucleus

- has nuclear membrane
- contains chromosomes
- chromosomes contain DNA

cell membrane / plasma membrane

- selectively permeable
- flexible
- made of proteins and lipids

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