(4) makes larger size possible.

- 5. Flagella, if present< with a 9+2 arrangement of microtubules.
- 6. Cell division with mitosis and cytokenesis.



Structures of eukaryotic cells and their function: Nucleus-Contains most of the genes that control the entire of CO-UK Nuclear envelope-a selectively permeable protection of a product of the separates the nucleus from the rest of the cell and recul nucleus from the rest of the cell and regular wat moves into and out of the nucleus.

Chromatin-Complex of DNA and listone protiens which makes up the chromosomes. In eukarvotic certs chromosomes at ong threadlike associations of genes. Each specter has a characterism Gromosome number.

Valle Vas-Consist of nucleolar Organizers and ribosomes in various stages of production. It packages ribosomal subunits.

Ribosomes-a cytoplasmic organelle which is the site for protein synthesis.

Smooth Endoplasmic Reticulum

- 1. Synthesize lipids, phospholipids and steroids.
- 2. Participates in carbohydrate metabolism.
- 3. Detoxifies drugs and poisons.
- 4. Stores calcium ions necessary for muscle contraction.

Rough Endoplasmic Reticulum

Is continuous with outer membrane of the nuclear envelope. It manufactures secretory proteins and membranes.

Golgi Apparatus

Enzymes in the Golgi Apparatus modify products of the ER in stages as they move though the Golgi stack. The Golgi:

- 1. alters some membrane phospholipids.
- 2. Modifies the oligosaccharides portion of glycoproteins.
- 3. Manufactures certain macromolecules itself.