

Gtsg

Eukaryotic cell: function of reproduction in. Mitosis phases:

- 1) Prophase:** k occurring phenomena: disappearance of the nucleolus, the k genes is synthesized ARNn of 45s (several copies) is integrated in the chromosomes 13, 14, 15, 21 and 22 (human). Nuclear envelope disappears due to water entering the cytosol. It forms the mitotic spindle or from centriolar microtubule organizing center. Duplication of the centrosome.
- 2) Metaphase:** k phenomena occur: spindle is completely formed. K in prophase chromosomes looked like filaments are now fully compacted and there are now two chromatids (each consisting Molec x be a DNA). Of the kinetochore microtubules are formed enpujan k kinetochores on chromosomes to put them in the equatorial plane of the cell
- 3) Anaphase:** k phenomena occur: shortening of kinetochore microtubules separates the chromatid sisters each to one pole of the cell. In late anaphase or cytokinesis begins distribution of cytoplasmic content between the two are forming K cells (daughter cells)
- 4) Telophase:** k phenomena occur: maximum shortening of kinetochore fibers, total separation of sister chromatids. Maximum elongation of the polar spindle fibers. Reconstruction of the nuclear envelope from the RER. Pasamo of chromatin chromosome desespirilization through the process of

cytokinesis in animal and plant cells: cytokinesis is the division of the cytoplasm

- 1) animals** strangulation of the cell x its equatorial plane due to the formation of a ring of actin and myosin aontractil between fibers spindle
- 2) plants:** In plant cells cytokinesis is produce in the Golgi vesicles k k occur together to form a tabike called fragmoplasto k changes its composition to give rise to lamina

half cell eukaryote functions of nutrition; concept of nutrition: the function x the k SV gained from their material environment and energy with the source material can be classified as SV; Heterotrophs, obtaining organic matter in the form obtained Autotofos inorganic matter in the form (CO_2 , mineral salts)

According to the power source can clsificar SV in: Photosynthetic: k using solar energy is used for the synthesis of chemosynthetic organisms subject: obtains energy x oxidation of Molec. Two small groups: a) chemolithotrophs: use reduced inorganic molecules (NH_3 , SH_2) Are bacteria B) chemoorganotrophic: using small organic molecules are heterotrophic

Heterotrophic nutrition phases:

- 1) ingestion:** endocytosis and phagocytosis pinocytosis
- 2) Digestion:** lysosome primary endocytic vesicles +
- 3) Excretion** release of desexo x exocytosis