

Somso – Mitosis: 8 Models with Green Bases:

Cell Division

(Indirect Nuclear Division-Mitosis)



Model 1 Prophase

Formation of the chromosomes from the chromatin network of the cell nucleus (K.), beginning formation of an achromatic spindle between the daughter chromosomes (Z 1, Z 2), developed from the centrosome, and formation of aster rays (PS) around the daughter centrosomes.
N = Nucleolus, C = Cytoplasm

Model 2 Prophase

Similar to 1, but extension of the achromatic spindle (ZS).

Model 3 Prophase

Similar to 2, but radiation of achromatic fibres (ZF) from the centrosomes to the chromosomes (Ch); beginning longitudinal division of the chromosomes; dissolution of the nuclear membrane.

Model 4 Metaphase

Orientation of the lengthwise split chro-

somes (Ch) at the equatorial plane of the spindle ("equatorial plate").

Model 5 Anaphase

Contraction of the achromatic fibres (ZF) and moving of the daughter chromosomes (Ch) to the opposite poles of the spindle (Z 1, Z 2).

Model 6 Anaphase

Similar to 5, in addition, constriction of the plasma body (E).

Model 7 Anaphase

Further moving asunder of the daughter chromosomes and formation of "daughter plates" (ChT). Progressive constriction of the plasma body (E).

Model 8 Telophase

Loosening and ramification of the chromosomes (Ch) into the nuclear reticulum and formation of the nuclear membrane (K); involution of the aster rays; complete separation of the plasma body.



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