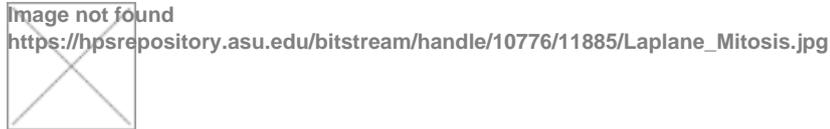


Stages of cell division in animals and plants ^[1]



Laplane's description: In these drawings, I tried to highlight Inoue's investigation on mitotic spindle during cell division. Inoue was observing the mitotic spindle through their birefringence. This particular kind of observation is associated with a particular imaging of the cells where one mainly sees the mitotic spindles, to the expense of other cell elements. Because of this focus, my drawings depart from classical drawing of cell division in several ways. First, I draw the nucleus, the chromosomes, and the cell membrane in grey, in order to put the highlight mainly on the mitotic spindle. Second, I chose to not represent the centriols and centromers that are classically represented in cell division diagrams but that are not visible in Inoue's pictures. Third, I put more emphasize on some particular phases of the cell cycle that seem of particular importance for Inoue?from metaphase to late anaphase? and drew more simple representation of the other phases. There are several dissimilarities between plants and animals cell division. In particular, in plants, the birefringence is stronger near the chromosomes and weaker toward the poles, while it is more homogeneous in the animal cells from chromosomes to poles. Late anaphase and telophase are also quite dissimilar. In plants, some fibers regain birefringence in late anaphase, they guide the accumulation of vesicles into the midplane of the cell that then fuse and form the primary cell wall.

Publisher

Arizona Board of Regents

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Last Modified

Friday, June 30, 2017 - 10:02

DC Date Accessioned

Thursday, June 29, 2017 - 14:58

DC Date Available

Thursday, June 29, 2017 - 14:58

DC Date Created

2015-07-07

DC Date Created Standard

Tuesday, July 7, 2015 - 07:00

Dspace Image

https://hpsrepository.asu.edu/bitstream/handle/10776/11885/Laplane_Mitosis.jpg.jpg

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