

Special Issue

Mechanistic Studies of Mitosis

Message from the Guest Editor

During mitotic cell division, replicated chromosomes are segregated faithfully into two daughter cells. There are monitoring mechanisms called checkpoints which act during mitosis to ensure proper chromosome attachment and correct chromosome segregation. One checkpoint that functions during early mitosis is called the spindle checkpoint and delays anaphase onset until all chromosomes are properly attached to spindle microtubules emanating from opposite spindle poles. The recruitment of spindle checkpoint proteins to unattached kinetochores is very important for the activation of the spindle checkpoint. Malfunction of the spindle checkpoint can lead to aneuploidy and cancer. In mammalian cells, the abscission checkpoint is dependent on the Aurora B kinase and is a matter of active investigation. In this Special Issue called “Mechanistic Studies of Mitosis in Human Cells”, we focus on the latest research developments in human mitosis and mitotic checkpoints.

Guest Editor

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