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Chromosome Segregation Defects in the Origin of Genomic Instability

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submissions:

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Message from the Guest Editor

Dear Colleagues,

The cell cycle, whose purpose is to become two where there was only one, is extraordinarily complex and tightly regulated. Any error in this process could cause an unsuccessful transmission of genetic material, leading from cancer to birth defects. Anaphase is particularly concerning as a source of genetic aberrations, since there are no good options for the cell to correctly deal with chromosome segregation errors.

The physical causes of these aberrations include a number of unnatural forms during the separation of sister chromatids, like the presence of catenations, underreplicated chromosomes or unresolved recombination intermediates. At a molecular level, mutations in numerous genes cause chromosome segregation defects, including those genes involved in DNA damage and replication checkpoints.

In this Issue, we aim to gather a collection of reviews, research articles, and concept papers about the molecular players involved in the successful segregation of chromosomes, both in mitosis and meiosis, as well as manuscripts dealing with the instability footprints found in the progeny.

Kind regards



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Special Issue



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Message from the Editor-in-Chief

Genes are central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fastmoving field. There is a need for good quality, open access journals in this area, and the *Genes* team aims to provide expert manuscript handling, serious peer review, and rapid publication across the whole discipline of genetics. Starting in 2010, the journal is now well established and recognised.

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