

## Special Issue

# Studies on the Pathogenesis of Chromosome Rearrangement

### Message from the Guest Editors

Genome instability of meiotic chromosomes contributes enormously to mutational processes during human genome evolution, in association with human diseases and manifesting as polymorphic variation in populations. In addition, genome instability of mitotic chromosomes is the driving force that creates mutations and chromosome rearrangements, which finally lead to the development of cancers. Several major mechanisms have been proposed for human genome rearrangements, and these include nonallelic homologous recombination (NAHR), nonhomologous end-joining (NHEJ), and replication based mechanisms (RBMs), such as fork stalling and template switching (FoSTeS) and microhomology-mediated break-induced replication (MMBIR). Moreover, complex exonic, genic, and chromosomal rearrangements can be generated in a single mutagenic event by chromothripsis-like events.

This Special Issue, "Studies on the Pathogenesis of Chromosome Rearrangement", will cover a selection of recent research topics and current review articles in the field of chromosome rearrangement, both on a meiotic and mitotic level.

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### Guest Editors

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### Deadline for manuscript submissions

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## International Journal of Molecular Sciences

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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### Editor-in-Chief

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