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Studies on the Pathogenesis of Chromosome Rearrangement

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Deadline for manuscript submissions:
closed (31 December 2021)

Message from the Guest Editors

Dear Colleagues,

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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Message from the Editor-in-Chief

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