# Special Issue

# Molecular Insights into Centromere Assembly and Dysfunction

### Message from the Guest Editors

The aim of this Special Issue is to collect reviews and original research articles that advance our understanding of the mechanisms responsible for centromere assembly and dysfunction. We welcome author contributions highlighting novel findings on the assembly of the centromere, its (epi)genetic regulation, the molecular mechanisms operating at the centromere, and causes of centrosome dysfunction/malfunction associated with chromosome stability and their roles in human diseases. Centromeres are unique chromosome loci characterized by the binding of a special histone H3 variant known as CENP-A in vertebrates, Cse4 in *Saccharomyces cerevisiae*, Cid in *Drosophila melanogaster*, and HCP-3 in *Caenorhabditis elegans*. Here, the kinetochore complex adheres and sister chromatids are held together ensuring the faithful segregation of mitosis and meiosis. Hence, the correct assembly (protein composition, (epi)genetic background, integrity, localization, topology, and regulation) of the centromere is essential for the maintenance of chromosome (genome) stability.


### Guest Editors

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### Deadline for manuscript submissions

closed (30 July 2021)


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## Message from the Editor-in-Chief

*Genes* is central to our understanding of biology, and modern advances such as genomics and genome editing have maintained genetics as a vibrant, diverse and fast-moving 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. Why not consider *Genes* for your next genetics paper?

## Editor-in-Chief

Prof. Dr. Selvarangan Ponnazhagan
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