

Special Issue

Cytomolecular Organisation of the Nuclear Genome

Message from the Guest Editors

Modern molecular cytogenetics enables a variety of observations of nuclear genome organisation at the level of the chromosome or in the interphase nucleus. DNA:DNA fluorescence in situ hybridisation combined using the latest microscopes with image acquisition and processing systems enables simultaneous two- or three-dimensional, multicolour visualisation of highly repetitive, low-repeat, and single-copy sequences in the genome. Fluorescent antibodies to specific targets can also be used to selectively localise epigenetically modified components of chromatin, such as methylated DNA and histones. They also have utility in highlighting proteins comprising important biological structures, such as the synaptonemal complex and the enzymatic machinery responsible for genetic recombination events.

This Special Issue encompasses a wide range of topics connected with various aspects of the organisation of the nuclear genome at the cytomolecular level in eukaryotes. The topics may cover, inter alia, analyses of the structure and evolution of karyotypes, the cell cycle and cell division, chromatin arrangement at interphase and nuclear genome instability after mutagenic treatment.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

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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