

Special Issue

Chromosomal Instability in Health and Disease

Message from the Guest Editor

Chromosomal instability (CIN) and its consequence, aneuploidy, are predominant features of cancers. CIN results in structural and numerical chromosomal aberrations and leads to heterogeneity of such aberrations inside the same tumor. In conjunction with other forms of genomic and epigenomic instability, CIN underpins the most menacing aspect of cancer cells: their ability to evolve. This enables cancer cells to evade immunological surveillance, metastasize, and develop resistance to therapeutic drugs. Concurrently, CIN also introduces vulnerabilities in cancer cells, presenting potential avenues for anticancer therapies. Cellular senescence, seemingly mediated by CIN and aneuploidy, may play a role in aging. Variations in chromosomal number and structure, such as translocations, deletions, duplications, inversions, and complex chromosomal rearrangements, have shaped the phylogenesis of many evolutionary lineages. Furthermore, during early embryonic development, CIN might act as a major factor in negative selection, ensuring the survival of embryos exhibiting robust genome integrity. We invite researchers to contribute manuscripts related to these themes.

Guest Editor

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About the Journal

Message from the Editorial Board

Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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