Special Issue

DNA Damage and Senescence in Cellular Response to Cancer Therapies

Message from the Guest Editors

Chemotherapy and radiotherapy act by inducing DNA damage and the activation of the DNA damage response (DDR) during cancer treatment. This crucial cellular response triggers a series of events that may eventually result in cell death or, alternatively, in DNA repair and cell survival. The persistence of DNA damage may allow for a permanent cell cycle arrest and the establishment of cell senescence. A senescent cell is a metabolically active cell that does not proliferate, shows peculiar histone modifications, and communicates with its microenvironment through a Senescent Associate Secretory Phenotype (SASP), a secretome that is rich in cytokines and chemokines. In this Special Issue, we hope to collect observations and discussions on the role of DNA damage and senescence in different types of tumors; the role of tumor and non-tumor senescent cells on cancer progression; the role of DNA damage and senescence on the immune system and in immunotherapies; the molecular aspects of cell response to therapies involving DNA damage machinery and senescence; and the impact of therapy-induced DNA damage and senescence on tumor aggressiveness and therapy resistance.

Guest Editors

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Deadline for manuscript submissions

closed (15 April 2023)

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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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manuscripts are peer-reviewed and a first decision is provided to authors approximately 16 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the first half of 2025).