Special Issue

Mutagenesis and DNA Methylation in Aging

Message from the Guest Editor

The interactions between mutagenesis and DNA methylation are beginning to be appreciated. Those interactions are most apparent during mammalian aging where mutagenesis establishes genomic mosaicism from previously uniform genomes, leading at best to cell lineages with hindered functionality and excess cytopenia and at worst to tumorigenesis. Methylation patterns mirror these events not only because the tissue specific mosaic of methylation patterns established during development is directly altered by age-linked mutagenesis, but also because it is altered by the fidelity and integrity of the maintenance methylation systems. This Special Issue seeks to provide an overview of the linkages between these two important genomic phenomena and their bearing on the fundamental nature of aging and carcinogenesis in mammals. Studies on interventions aimed at slowing or reversing these processes are of particular interest, as are original research studies on mammalian methylation clocks, mammalian repair systems, DNA methylation-linked DNA damage, and the comparative analysis of the systems and evolutionary processes that maintain the stability of the genome and the methylome.

Guest Editor

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Message from the Editor-in-Chief

Cancers is an international online journal addressing both clinical and basic science issues related to cancer research. The journal is publishing in Open Access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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