

## Special Issue

# Role of Epigenetic Modifications in Cancers

### Message from the Guest Editors

Cancer cells are simultaneously characterized by a massive overall loss of methylation in DNA and the acquisition of specific patterns of hypermethylation at CpG islands of certain gene promoters. Clearly established epigenetic mechanisms in human cancer, such as DNA methylation and histones methylation and acetylation, can reversibly or irreversibly alter gene function. Epigenetic abnormalities are set and maintained by multiple protein complexes and the interplay between their individual components, including DNA methylation machinery, histone modifiers, polycomb proteins and chromatin remodellers. Hence, DNA methylation mapping has revealed cancer-specific profiles of hypermethylated CpG islands (hypermethylomes) able to distinguish between different tumor types and to predict antineoplastic treatment responsiveness and patients' outcome. It has been made achievable, by the introduction of next-generation technologies that have led to the generation of a large amount of information, to better appreciate the role of the epigenomics of cancer in the clinical scenario.

### Guest Editors

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### Deadline for manuscript submissions

closed (30 June 2022)



## Cancers

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## About the Journal

### 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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### Editor-in-Chief

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