

Special Issue

Epigenetics in Human Cancer: Emerging Biomarkers and Therapeutic Targets

Message from the Guest Editor

Beyond genetic alterations, epigenetic changes are increasingly recognized as critical drivers in the initiation, progression, and therapeutic resistance of human cancers. Aberrant DNA methylation and histone modifications frequently lead to the activation of oncogenes or the silencing of tumor suppressor genes. A growing body of evidence highlights the role of epigenetic regulators in orchestrating key cancer hallmarks, including tumorigenesis, uncontrolled proliferation, survival, metastasis, immune evasion, metabolic reprogramming, and resistance to therapy. In particular, epigenetic-based therapies—either alone or in combination with chemotherapy, targeted therapy, or immunotherapy—are showing potential to overcome resistance and improve patient outcomes.

- DNA methylation and demethylation in cancer;
- Histone modifications and chromatin remodeling regulating cancer-associated genes;
- The role of non-coding RNAs (miRNAs, lncRNAs, circRNAs) in cancer;
- Epigenetic therapies to overcome anti-cancer drug resistance;
- Epigenetic reprogramming of the tumor microenvironment;
- Clinical applications and biomarkers based on epigenetic alterations.

Guest Editor

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Message from the Editor-in-Chief

Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to *Biomedicines*, be it original research, review articles, or developing Special Issues of current key topics.

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