



## Interplay between Epigenetics and Metabolism in Cancer and Other Disorders

Guest Editor:

**Dr. So Hee Kwon**

College of Pharmacy Yonsei  
Institute of Pharmaceutical  
Sciences, Yonsei University,  
Incheon 21983, Republic of Korea

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### Message from the Guest Editor

Numerous studies have indicated that cellular metabolism and epigenetics are highly interconnected, contributing not only to physiological changes but also to numerous different human disorders and cancers. The epigenetic regulation of genes mediated by DNA- and histone-modifying enzymes (DNMT, HAT, HDAC, KAT, KDM, BET, etc.) is influenced by oncogene-mediated metabolic alterations. Such metabolic changes affect the presence or accessibility of cofactors that are required for the catalytic activity of epigenetic modifying enzymes. In addition, these metabolic alterations may produce oncometabolites that abnormally activate or inhibit such modifying enzymes, altering the epigenome. As a result, the interplay between metabolism and epigenetics is crucial for the development of human diseases and tumorigenesis. Discovering novel molecular mechanisms linking the two pathways and targeting their downstream substrates could provide novel therapeutic targets to treat patients with different diseases.

In this issue, we are particularly interested in the regulation and mechanism of epigenetic enzymes and metabolic enzymes in cancer.





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### Prof. Dr. Maurizio Battino

Department of  
Odontostomatologic and  
Specialized Clinical Sciences,  
Sez-Biochimica, Faculty of  
Medicine, Università Politecnica  
delle Marche, Via Ranieri 65,  
60100 Ancona, Italy

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*International Journal of Molecular  
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MDPI, Grosspeteranlage 5  
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