Special Issue

DNA Damage, Oxidative Stress and Metabolism in Cancer

Message from the Guest Editors

Cancer-associated metabolic alterations caused by intratumoral hypoxia or gene mutations result in the abnormal accumulation of small intermediates of metabolism with oncogenic properties. The over-production of these so-called oncometabolites is emerging as a new mechanism of dysregulation of the DNA damage response through their effects on chromatin structure. These oncometabolites remodel chromatin structure by acting on the methylation of DNA and histones. This results in increased DNA damage and repression of DNA-repair pathways. In normal cells, then, accumulation of these metabolites triggers cell transformation and tumor development, whereas in tumor cells, the inhibition of DNA-repair pathways may contribute to a better response to cancer therapy. This Special Issue will include research articles and reviews related to the crosstalk between DNA damage, oxidative stress and metabolism in cancer, for example: • DNA damage signaling, oxidative stress and cellular metabolism.• Impact of cancer-associated metabolic alterations on nuclear DNA damage and oxidative stress signaling pathways.

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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