Special Issue

Functional Analysis of Genes Related to DNA Damage

Message from the Guest Editors

Since the 1970s, it has been understood that unrepaired DNA damage can increase mutagenesis and chromosomal instability. Humans have at least five broad DNA repair pathways, in addition to DNA damage tolerance pathways, and the proteins in these pathways work together on genome maintenance. The importance of these pathways is evident from clinical observation, with their mutation resulting in diseases such as Xeroderma Pigmentosum, Lynch syndrome, Fanconi anemia, etc. Accumulating evidence over the past two decades also shows that these DNA repair proteins are involved in other nuclear transactions including cell cycle control, DNA replication, immune cell diversity, epigenetics, and genome stability. This Special Issue is a collection of research articles and reviews that highlight recent advances in how the proteins that maintain genome integrity and function are regulated. In addition to their fundamental enzymology, we will also highlight how these factors are manipulated in the context of pathologies such as cancer, premature aging, and neurodegeneration.

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Biomolecules is a multidisciplinary open-access journal that reports on all aspects of research related to biogenic substances, from small molecules to complex polymers. We invite manuscripts of high scientific quality that pertain to the diverse aspects relevant to organic molecules, irrespective of the biological question or methodology. We aim for a competent, fair peer review and rapid publication. Please look at some of the exciting work that has been published in *Biomolecules* so far. We would be delighted to welcome you as one of our authors.

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