Special Issue

Regulation of Rad51 Nucleoprotein Filament Formation and Genomic Stability

Message from the Guest Editor

Homologous recombination (HR) is a critical pathway for DNA double-strand break repair, present in all forms of life. In eukaryotes, HR requires the presence of recombinase RAD51 filaments on single-stranded DNA. These filaments scan the genome for double-stranded DNA homologous sequences used as a template for DNA repair synthesis. RAD51 nucleoprotein filament formation, stability and dissociation implicate complex management of ATP uptake and hydrolysis by the recombinase. In humans, several RAD51 nucleofilament regulators have been associated with cancer, suggesting that RAD51 nucleofilament homeostasis is an important guardian of genome stability. The aim of this Special Issue on Biomedicines is to provide an overview of the state-of-the-art practice and promote new insights into the relationship between RAD51 filament regulation and genomic stability. Both original articles and reviews consistent with this research topic will be considered for publication in this Special Issue.

Guest Editor

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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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