Special Issue

Novel Radiotherapeutic Approaches: Molecular Aspects and Radiobiological Mechanisms

Message from the Guest Editor

Therapies with a significant impact on tumour control or sparing of normal tissues are still in their preclinical stages or waiting for clinical validation. Similar to the transition from standard (2Gy/fraction) to altered fractionation schedules, radiotherapy delivery has undergone important evolutions from conventional to nonconventional administration.High-dose, spatially fractionated radiation also known as GRID therapy has been clinically evaluated over the last few decades using various grid designs to allow for a non-uniform dose delivery. With a similar concept, a more recently developed nonconventional irradiation technique employing minibeams via an array of closely spaced beams is appraised. This form of beam settings is thought to influence cell signalling via abscopal effects, leading to the difference in response between malignant and healthy cells.The aim of this Special Issue is to encompass both review articles and original research on the molecular and radiobiological aspects behind the success of nonconventional radiation delivery, including radiobiological modelling and laboratory research.

Guest Editor

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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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