

Special Issue

Radiation-Induced Damage to DNA

Message from the Guest Editors

Since cancer is the third leading cause of death, radiation-induced damage to DNA is a topic of a paramount importance. Indeed, radiotherapy and photodynamic therapy are common modalities for treating human cancers, and causing efficient damage to the DNA of tumor cells is their main target. The efficacy of the above-mentioned modalities is a serious issue, since solid tumors, which account for c. 80% of cases, are hypoxic, which significantly reduces the extent of primary damage induced either by the ionizing or UV photons. This Special issue will expose the reader to: the mechanisms of direct and indirect radiation-induced DNA damage, radiation damage to DNA-protein complexes, the computational modeling of radiation damage to DNA, radio- and photosensitizers of DNA damage, repair of radiation-induced DNA damage, the biological consequences of DNA damage, the radiotherapy of cancer, photodynamic therapy, and cellular responses to DNA damage.

- DNA radio-/photodamage
- Radiosensitizers
- Solvated electrons
- Photosensitizers
- Hypoxia
- DNA repair
- Protein-DNA complexes
- Molecular modeling of DNA damage

Guest Editors

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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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