Special Issue

Molecular Computational Methods for Studying the Effects of Radiation on Human Beings

Message from the Guest Editor

Ionizing radiations have the capacity to damage DNA both by direct impact and by producing reactive chemical species that may attack this important cellular structure. Computational methods can shed light on the physico-chemical mechanisms involved in early DNA damage induction. This Special Issue aims at publishing original and review papers addressing matters such as the development of geometrical models of human genetic material, building of biophysical models for describing early DNA damage (including the DNA repair process), testing of old or creating new radiobiological models used in radiation therapy, determination of interaction cross-sections for particles impacting on biological media or other materials of interest in radiation therapy, development of algorithms and models for ionizing particle and chemical species transport simulation and any other work related to this research field.

- DNA damage
- biophysical models
- DNA geometrical models
- computational radiobiology
- Monte Carlo simulations
- ionizing radiation
- heavy ions
- DNA damage repair

Guest Editor

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The *International Journal of Molecular Sciences* (*IJMS*) 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, and molecular biophysics. *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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