



Radiation-Induced (Osteo-)Immunological Alterations—Impact on Tumors, Inflammation and Radiation Protection

Guest Editors:

Prof. Dr. Udo S. Gaipl

Head of Translational Radiobiology, Department of Radiation Oncology, Universitätsklinikum Erlangen, Erlangen, Germany

Dr. Lisa Deloch

Radiation Osteoimmunology, Translational Biology, Department of Radiation Oncology, Universitätsklinikum Erlangen, Friedrich-Alexander-Universität Erlangen-Nürnberg, 91054 Erlangen, Germany

Deadline for manuscript submissions:

closed (31 December 2023)

Message from the Guest Editors

Radiation exposure has long been thought to only affect the hereditary substance, namely the DNA, of cells. However, it has become more and more clearer that besides these so-called “targeted effects” of radiation exposure, a manifold of bystander, abscopal and generally systemic effects affecting the whole organism occur. Here, the immune system and its interaction with the skeletal system are major players. The close relationship between the immune system and the bone comes more and more in the focus of radiation research. Co-funding factors such as gender, age, and inflammatory basal status have additionally to be considered in analyses of individual responses to low, medium and high dose radiation exposure. In this Special Issue, we invite primary and review work to be submitted dealing with radiation effects on the immune system and/or the bone in connection to radiotherapy of tumor diseases, modulation of inflammation and radiation protection issues. We are looking forward to radiobiological approaches as well as to input from other disciplines that surely broaden our knowledge about radiation-induced local and systemic alterations.

