

Special Issue

Roadmaps for Nanomaterials in Radiation Therapy

Message from the Guest Editors

Nanomaterials have been explored for a long time in terms of radiation cancer therapy, aiming to overcome the limitations related to conventional treatments. Various material types, including metal nanoparticles and metal oxide and ceramic, carbon-based, and polymeric nanoparticles, offer phenomenal potential for various cancer therapy and diagnosis applications. Moving beyond the simple cause–effect studies of nanomaterials, recent studies that delve into the mechanism of action of these agents have greatly fueled the development of targeted and biologically relevant mediators for radiation therapy. Furthermore, the utilization of innovative materials and technologies in clinically informed combination therapies contributes immeasurably to the enhancement of their therapeutic properties. This field has been actively developed in the past few decades, and many researchers have been looking in this direction, searching for new strategies to fight cancer with. This Special Issue aims to serve as a versatile platform to highlight the myriads of ways in which nanoparticles are being employed in this fight.

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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