

Special Issue

Molecular Applications of Nanoparticles in Cancer Therapy

Message from the Guest Editors

Cancer remains one of the most pressing global health challenges and a leading cause of mortality worldwide. In this context, nanotechnology (particularly nanomedicine) offers a transformative platform for addressing these challenges, unlocking novel opportunities to combat this devastating disease. Nanomaterials hold immense promise, serving either as therapeutic agents themselves (e.g., by transforming electromagnetic energy into heat for cancer ablation) or as vehicles to enhance the tumor-specific targeting of therapeutic payloads. Moreover, nanotechnology enables groundbreaking approaches to modulate molecular pathways in cancer, either by directly targeting cancer cells or by reshaping the tumor microenvironment, including the intricate crosstalk between cancer cells and associated stromal cells. The purpose of this Special Issue is to establish a research forum dedicated to advancing our understanding of how nanoparticles influence molecular pathways in cancer, with the aim of addressing the current challenges and limitations in this field and fostering new insights into the mechanisms underlying nanoparticle-based cancer therapies.

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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