Special Issue

Applications of Photodynamic Therapy in Cancer

Message from the Guest Editor

This Special Issue will explore recent advances in photodynamic therapy (PDT), with a particular emphasis on its interplay with the tumor microenvironment and its potential to uncover novel therapeutic targets. A deeper understanding of the tumor microenvironment is crucial to comprehensively validate PDT as an anticancer strategy, especially considering its influence on treatment response and resistance. We welcome contributions employing advanced in vitro models—such as 3D cultures or co-culture systems-that more accurately recapitulate cellular interactions within the tumor microenvironment, allowing for a more physiologically relevant evaluation of PDT efficacy, ideally complemented by in vivo validation. Studies addressing mechanisms of immune evasion and how these impact PDT outcomes are also of high interest, as are investigations into innovative combination therapies aimed at overcoming therapeutic resistance. Furthermore, we aim to highlight research that leverages PDT to identify and validate new molecular or cellular targets within the tumor context, ultimately contributing to more precise and effective cancer treatments.

Guest Editor

Dr. Natalia Belén Rumie Vittar

Department of Molecular Biology, National University of Río Cuarto, Río Cuarto, Córdoba, Argentina

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International Journal of Molecular Sciences Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 ijms@mdpi.com

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Message from the Editor-in-Chief

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Editor-in-Chief

Prof. Dr. Maurizio Battino

Department of Odontostomatologic and Specialized Clinical Sciences, Sez-Biochimica, Faculty of Medicine, Università Politecnica delle Marche, Via Ranieri 65, 60100 Ancona, Italy

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