

Special Issue

The Roles of Photodynamic Therapy in Tumors and Cancers

Message from the Guest Editor

Photodynamic therapy (PDT) has evolved as a promising therapeutic option for cancerous and non-cancerous diseases. It involves the combination of a photosensitizer (PS), light with an appropriate wavelength, and molecular oxygen ($3O_2$). Upon irradiation, the excited PS transfers energy to the surrounding $3O_2$ to generate cytotoxic reactive oxygen species (ROS), especially singlet oxygen ($1O_2$), which attacks key structural entities within the targeted cells, ultimately resulting in cell necrosis or apoptosis. Compared with conventional cancer treatments, PDT has displayed some potential advantages such as minimal invasiveness, low drug resistance, broad-spectrum antitumor activity, and high spatiotemporal selectivity, which have stimulated extensive studies of this promising treatment modality. This Special Issue aims to present recent novel developments in PDT against cancers. The original research manuscripts and comprehensive reviews focus on the mechanism of PDT, the discovery of new photosensitive molecules, immuno-PDT, and the strategies to enhance PDT outcomes are especially welcome.

Guest Editor

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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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