

Special Issue

Advances in Electroporation-Based Technologies for Cancer Treatment

Message from the Guest Editors

Electroporation-based technologies are changing the landscape of cancer therapy by enabling the precise local delivery of therapeutic molecules into tumors. Electrochemotherapy has become a clinically established modality for the treatment of cutaneous and subcutaneous malignancies, while non-thermal irreversible electroporation offers a unique approach for the ablation of deep-seated tumors without thermal damage. Gene electrotransfer extends this platform by enabling the local expression of therapeutic genes, including immunostimulatory cytokines such as interleukin-12. Clinical trials in melanoma and head and neck cancer have demonstrated both safety and antitumor activity. Despite these advances, the optimization of delivery protocols, enhancement of the immune response, and translation from local to systemic effects remain an ongoing challenge. This Special Issue will focus on the pre-clinical and clinical innovative research and translational advances that could help electroporation-based cancer therapies achieve broader clinical application.

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About the Journal

Message from the Editor-in-Chief

Cancers (ISSN 2072-6694) is an international, online journal addressing both clinical and basic science issues related to cancer research. The journal will continue its open access format, which will certainly evolve to ensure that the journal takes full advantage of the rapidly changing world of information and knowledge dissemination. It publishes high-quality clinical, translational, and basic science research on cancer prevention, initiation, progression, and treatment, as well as other related topics, particularly to capture the most seminal studies in the rapidly growing area of immunology, immunotherapy, and tumor microenvironment.

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