Special Issue

Advances in Targeted Therapies and Immunometabolic Pathways in Cancer

Message from the Guest Editor

The intricate interplay between tumor metabolism and immune evasion has established a transformative frontier in cancer therapy. This Special Issue highlights the converging evidence that metabolic reprogramming, characterized by altered metabolism, not only sustains malignant growth but also reshapes the tumor immune microenvironment. Recent studies demonstrate that therapies targeting oncogenic signaling pathways, such as MYC, KRAS, and PI3K, can enhance tumor antigenicity and T-cell infiltration when combined with immune checkpoint blockade. Moreover, efforts to convert "cold" tumors into "hot" ones through modulation of the tumor microenvironment or the activation of innate immune pathways have shown promise in augmenting immunotherapeutic efficacy. Cellular therapies, including CAR-T and engineered NK cells, are being redesigned to overcome metabolic suppression within solid tumors.

This Special Issue brings together novel mechanistic insights, preclinical models, and translational strategies that will inform the next generation of combination treatments aimed at overcoming resistance and improving patient outcomes across diverse malignancies.

Guest Editor

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Message from the Editor-in-Chief

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