Special Issue

Roles of Extracellular Vesicles in Cancer Immunotherapy

Message from the Guest Editors

Extracellular vesicles (EVs) have emerged as crucial players in cancer immunotherapy, holding great promises for revolutionizing the way for cancer treatment. These nanoscale, membrane-bound structures secreted by various cell types play multifaceted roles in both promoting and suppressing tumor growth, as well as in shaping the immune response. Tumor cells often release EVs loaded with immunosuppressive molecules. Tumor-derived EVs can also facilitate metastasis by creating a favorable pre-metastatic niche in distant organs. EVs can be engineered to encapsulate and deliver therapeutic agents to tumor cells directly. EVs loaded with tumor antigens can be used as therapeutic vaccines to prime the immune system against cancer. Additionally, EVs present in body fluids can also serve as potential biomarkers for cancer diagnosis and prognosis. This Special Issue aims to elaborate the diverse roles of EVs in cancer immunity and prospect the potential therapeutic applications in cancer immunotherapy.

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Biomedicines (ISSN 2227-9059) is an open access journal devoted to all aspects of research on human health and disease, the discovery and characterization of new therapeutic targets, therapeutic strategies, and research of naturally driven biomedicines, pharmaceuticals, and biopharmaceutical products. Topics include pathogenesis mechanisms of diseases, translational medical research, biomaterial in biomedical research, natural bioactive molecules, biologics, vaccines, gene therapies, cell-based therapies, targeted specific antibodies, recombinant therapeutic proteins, nanobiotechnology driven products, targeted therapy, bioimaging, biosensors, biomarkers, and biosimilars. The journal is open for publication of studies conducted at the basic science and preclinical research levels. We invite you to consider submitting your work to Biomedicines, be it original research, review articles, or developing Special Issues of current key topics.

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