Special Issue

Molecular Mechanisms of Myeloid Cell Differentiation and Resistance to Anti-Tumor Immunity

Message from the Guest Editor

Immunotherapies have revolutionized the treatment of solid tumors over the past decade. However, during tumor progression, tumors implement profound immunosuppression within the tumor microenvironment (TME), leading to resistance to immunotherapies and recurring tumor disease. Chronic cancer inflammation over-activates the immune system, leading to a dramatic expansion and the recruitment of myeloid progenitors that fail to mature into functional myeloid effector cells, thus leading to an imbalance of inflammation and anti-inflammation. The editorial aims to (1) define the molecular, epigenetic, and metabolic networks implicated in persistent myelopoiesis observed in cancer patients (2) discuss the impact of dysfunctional myeloid differentiation on clinical outcomes (3) explore new biomarkers and therapeutic targets in order to restore the differentiation of myeloid progenitors and myeloid cells towards an effector phenotype, thus increasing host antitumor immunity. Restoring the profound alterations in myelopoiesis may help to overcome resistance to immunotherapy in patients with cold tumors, where myeloid cells are key players in mediating immune evasion.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2025)

Biomedicines

an Open Access Journal by MDPI

Impact Factor 3.9
CiteScore 6.8
Indexed in PubMed

mdpi.com/si/203022

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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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