Special Issue

Immunometabolism in Cancer and Autoimmunity: Mechanisms and Therapeutic Targeting

Message from the Guest Editor

Metabolism critically regulates immune cell function. Precise metabolic control maintains immune homeostasis, while its disruption contributes to diseases such as cancer and autoimmune disorders. Immunometabolism encompasses nutrient sensing. transport, energy-generating biochemical reactions, and governs organelle dynamics, redox balance, epigenetic and post-translational regulation through signaling pathways. Advances in immunometabolism inform innovative treatments for cancer and autoimmune disorders. This Special Issue welcomes studies on nutrient sensing, metabolic reprogramming, organelle dynamics, redox balance, and post-translational regulation—especially those focused on signaling pathways and potential metabolic interventions. By integrating immunology, pathology, and innovative therapeutics, this issue aims to deepen our understanding of how metabolic regulation impacts immune responses and how their dysregulation promotes disease, informing innovative treatments.

Guest Editor

Dr. Xiancai Zhong

Department of Immunology & Theranostics, Arthur Riggs Diabetes and Metabolism Research Institute, Beckman Research Institute of the City of Hope, Duarte, CA 91010, USA

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Biomedicines
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
biomedicines@mdpi.com

mdpi.com/journal/biomedicines





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Biomedicines (ISSN 2227-9059) is an open access iournal 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.

Editor-in-Chief

Prof. Dr. Felipe Fregni

- Neuromodulation Center and Center for Clinical Research Learning, Spaulding Rehabilitation Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA
- 2. Department of Epidemiology, Harvard T.H. Chan School of Public Health, Boston, MA 02115, USA

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