Special Issue

Advances in Pathogenesis and Treatment of Infectious Diseases

Message from the Guest Editor

Infectious diseases remain a significant global health challenge, exacerbated by increasing antimicrobial resistance, biofilm-associated infections, and emerging pathogens. Recent advances in molecular diagnostics, phage therapy, and recombinant antibody technologies offer promising new strategies for targeted interventions. However, substantial gaps persist in translating these innovations into clinical practice, particularly regarding polymicrobial infections, the optimization of host-directed tolerance mechanisms, and the reduction of diagnostic delays. This Special Issue invites submissions that address the pathogenesis of bacterial, viral, and fungal infections, as well as novel therapeutic approaches and innovative diagnostic tools. Contributions focused on antimicrobial stewardship, microbiome engineering, and interdisciplinary strategies to overcome resistance and enhance patient outcomes are especially encouraged. Original research articles, comprehensive reviews, and clinical trials advancing our understanding of infection dynamics and therapeutic frontiers are all welcome.

Guest Editor

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Message from the Editor-in-Chief

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.

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