

Special Issue

Navigating the Complex Landscape of Non-Communicable Respiratory Diseases: Emerging Challenges and Opportunities

Message from the Guest Editor

This Special Issue explores the complex interplay of genetic, environmental, and pathophysiological factors in non-communicable respiratory diseases, such as asthma, idiopathic pulmonary fibrosis (IPF), and chronic obstructive pulmonary disease (COPD), among others. Despite their distinct manifestations, they share common pathways like inflammation, which connect their pathophysiology. Asthma involves genetic and environmental interactions leading to airway inflammation, requiring personalized treatment with emerging biomarkers and therapies. IPF and COPD are similarly affected by environmental factors such as air pollution, especially particulate matter, which exacerbates disease progression through respiratory and systemic inflammation. Recent studies indicate potential roles for the renin–angiotensin system in these diseases, offering new therapeutic targets. These conditions present significant public health challenges, incurring substantial economic costs from healthcare and productivity losses. Global challenges, such as increasing urbanization and lifestyle changes, further disrupt immune responses and compromise epithelial integrity, promoting these diseases.

Guest Editor

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Message from the Editor-in-Chief

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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