Special Issue

From Mechanisms to Medicine: Cellular Insights into Pulmonary Hypertension

Message from the Guest Editor

Pulmonary hypertension (PH) is a multifactorial and progressive disorder, clinically defined by elevated pulmonary arterial pressure (>20 mmHg), ultimately leading to right heart dysfunction and failure. PH is characterized by extensive pulmonary macrovascular and microvascular remodeling, driven by a complex interplay of cellular and molecular alterations. A deeper understanding of these dynamic and interconnected mechanisms is essential for identifying novel therapeutic targets and improving patient outcomes.

This Special Issue aims to highlight recent advances in elucidating the molecular and cellular pathways involved in the pathogenesis of PH. We particularly encourage studies presenting molecular data, including, but not limited to, gene expression profiling, signaling pathway analysis, protein–protein interactions, epigenetic modifications, and metabolomic or transcriptomic signatures associated with pulmonary vascular pathology.

Researchers are invited to submit original articles and reviews that integrate molecular insights with cellular mechanisms of PH pathogenesis, with the goal of advancing translational understanding and therapeutic development.

Guest Editor

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Message from the Editor-in-Chief

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Editor-in-Chief

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