

Special Issue on

Advances in Pulmonary Hypertension: Cellular Pathology, Molecular Targets and Therapy

CALL FOR PAPERS

Pulmonary hypertension is a high-risk cardiopulmonary disease syndrome characterized by a variety of physiological and pathological features, including persistent increase in the pulmonary arterial pressure, enhanced vasoconstriction, and media wall remodeling in the pulmonary arterial vasculature. The pathological changes in pulmonary vessels are mainly due to the increased proliferation and migration of pulmonary arterial smooth muscle cells, as well as the apoptosis and dysfunction of pulmonary arterial endothelial cells, both of which have attracted significant research attention in order to investigate and uncover the detailed molecular mechanism and targets. During the last two decades, great progress has been made in this research field, including the demonstration of genetic mutations, intracellular calcium dysregulation, and hypoxia-inducible factors that all contribute to pulmonary hypertension. However, to date, the pathophysiology of this disease syndrome remains mainly unclear. Considering the current situation, subgrouping patients based on the latest knowledge of this disease may guide the design of novel target-based medications and facilitate individual precision treatment strategies for different subgroups of patients. This subgrouping of patients will be an urgent task in future research and developing therapies against this lethal disease.

This special issue encourages submissions which advance the understanding of the molecular targets underlying the cellular pathology of pulmonary hypertension, which may have the potential to enrich our understanding of the disease molecular basis and transform basic research into clinical diagnosis and treatment. Submissions concerning developments in new classes of therapeutic strategies for pulmonary hypertension are also welcomed. The special issue encourages submissions focusing on powerful and safe reagents from either well-recognized on-market medication, or newly reported chemical compounds that might lead to potential clinical treatment. Special attention will be given to molecular targets-based subgrouping and precision treatment of patients with different subtypes of pulmonary hypertension. Original research articles, review articles, and specific patient clinical study are all welcomed.

Potential topics include but are not limited to the following:

- ▶ Genetic screening, subgrouping, and clinical implication for pulmonary hypertension
- ▶ New biomarkers for screening and early diagnosis of pulmonary hypertension
- ▶ Cell differentiation, cell fate change, and the underlying mechanisms in pulmonary vasculature
- ▶ Calcium channel biology in the cellular pathology of pulmonary arterial smooth muscle cells and pulmonary arterial endothelial cells
- ▶ Novel insights in hypoxia-inducible factors and therapeutic implication in pulmonary hypertension
- ▶ Molecular targets-based precision treatment for different subtypes of pulmonary hypertension

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/acp/nai/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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