# **Special Issue**

# Exploring the Pathogenetic Mechanisms in Respiratory Virus Infections: Recent Advances and Future Directions

# Message from the Guest Editor

Respiratory viral infections are a major concern for public health, representing the most prevalent causes of human disease worldwide and exerting considerable impact from epidemiological, clinical and economic perspectives. Among respiratory viruses, Influenza A and B viruses, respiratory syncytial virus, rhinovirus, adenovirus, parainfluenza virus as well as SARS-CoV-2 are the main agents causing mild upper respiratory tract infections or lower respiratory tract infections which can progress in serious complications for both pediatric and adult populations. Understanding the molecular mechanisms underlying virus-host interactions, pathogenesis, and immune evasion is crucial for developing effective preventive and therapeutic strategies. The aim of this Special Issue is to highlight recent advances in the characterization of pathogenic mechanisms of respiratory virus infections. The main themes of interest include:

- interactions between viral and host components;
- identification of cellular factors involved in regulating virus-life cycle;
- viral proteins modulating host-cell pathways;
- dysregulation of immune response upon infections.

#### **Guest Editor**

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## Deadline for manuscript submissions

closed (20 September 2025)



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# Message from the Editor-in-Chief

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### **Editor-in-Chief**

#### Prof. Dr. Maurizio Battino

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