

## Special Issue

# Pathogenesis, Antibiotic Resistance, and Host Immune Responses to Bacterial Infections

### Message from the Guest Editors

Bacterial infections remain a major global health burden, driven by the dual challenges of pathogen virulence and antimicrobial resistance. Understanding the mechanisms of bacterial pathogenesis, antibiotic resistance mechanisms, and host immune responses is critical to developing effective therapeutic and preventive strategies. This Special Issue, "Pathogenesis, Antibiotic Resistance, and Host Immune Responses to Bacterial Infections," aims to highlight cutting-edge research that elucidates the following:

- How bacterial pathogens sense, manipulate, and damage host cells and tissues;
- The genetic, biochemical, and ecological drivers of antibiotic resistance acquisition and transmission;
- The innate and adaptive immune mechanisms that recognize and respond to invading bacteria.

We welcome studies exploring molecular mechanisms of virulence, antibiotic resistance, gene regulation, evolution of drug resistance, host immune responses and signaling pathways, as well as novel diagnostic or therapeutic approaches. By integrating multidisciplinary insights, this issue seeks to advance our ability to combat bacterial pathogens in an era of increasing antimicrobial resistance.

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### Guest Editors

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### Deadline for manuscript submissions

10 June 2026



## Pathogens

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Impact Factor 3.3  
CiteScore 6.8  
Indexed in PubMed



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## About the Journal

### Message from the Editor-in-Chief

The worldwide impact of infectious disease is incalculable. The consequences for human health in terms of morbidity and mortality are obvious and vast but, when infections of animals and plants are also taken into account, it is hard to imagine any other disease that has such a significant impact on our lives—on healthcare systems, on agriculture and on world economics.

*Pathogens* is proud to continue to serve the international community by publishing high quality studies that further our understanding of infection and have meaningful consequences for disease intervention.

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### Editor-in-Chief

Prof. Dr. Moriya Tsuji

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