

Special Issue

Virulence and Resistance Mechanisms in Multidrug-Resistant Gram-Negative Bacteria

Message from the Guest Editors

Gram-negative infections cause a substantial burden to patients globally, resulting in significant morbidity and mortality. This is reflected by data from both the U.S. Centers for Disease Control and Prevention and the World Health Organization in their reports on antibiotic-resistant threats and priority pathogens, respectively, wherein many of the pathogens noted are Gram-negative. While much is known about many of these pathogens, novel therapeutics to combat these bacteria in the healthcare setting are lacking, mainly due to a lack of data pertaining to their underlying virulence and resistance mechanisms. This sparsity of data makes the discovery of therapeutic targets difficult, stifling drug development. This Special Issue therefore encourages submissions of original research that closes this gap by elucidating the virulence and resistance mechanisms of these critically important bacteria, ultimately aiding in the discovery of novel therapeutic targets.

Guest Editors

Dr. Steven E. Fiester
Dr. William Penwell
Prof. Dr. Carmelo Biondo

Deadline for manuscript submissions

closed (31 March 2025)



Pathogens

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 6.7
Indexed in PubMed



mdpi.com/si/148106

Pathogens
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
pathogens@mdpi.com

[mdpi.com/journal/
pathogens](https://mdpi.com/journal/pathogens)





Pathogens

an Open Access Journal
by MDPI

Impact Factor 3.8
CiteScore 6.7
Indexed in PubMed



[mdpi.com/journal/
pathogens](https://mdpi.com/journal/pathogens)



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.

Editor-in-Chief

Prof. Dr. Moriya Tsuji

School of Engineering Medicine, Texas A&M University, 2121 West
Holcombe Blvd., Suite 1007, Houston, TX 77030, USA

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, PubAg, CaPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Infectious Diseases)