

Special Issue

Pathogenic *Escherichia coli*: Mechanisms of Virulence, Antimicrobial Resistance and Public Health Implications

Message from the Guest Editor

Pathogenic *Escherichia coli* (*E. coli*) strains are a leading cause of gastrointestinal and extraintestinal infections worldwide, posing significant public health challenges. These strains are classified into several pathotypes, including ETEC, EHEC, and UPEC, each with distinct virulence mechanisms and clinical manifestations. This special issue explores the molecular basis of *E. coli* pathogenicity, focusing on adhesion factors, toxins, and immune evasion strategies. The role of antimicrobial resistance in complicating treatment and the emergence of multidrug-resistant strains are also discussed. Additionally, the special issue highlights the importance of surveillance, rapid diagnostic tools, and preventive measures in controlling *E. coli* infections. Understanding the diversity and adaptability of pathogenic *E. coli* is crucial for developing effective interventions and mitigating their impact on global health.

In addition to already stated subjects, we would especially welcome manuscripts that focus on chronic and recurrent UTIs.

Guest Editor

Dr. Bogdan Nowicki

Department of Obstetrics and Gynecology, UT Medical Branch at Galveston, Galveston, TX 77555, USA

Deadline for manuscript submissions

10 August 2026



Pathogens

an Open Access Journal
by MDPI

Impact Factor 3.3
CiteScore 6.8
Indexed in PubMed



mdpi.com/si/232890

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

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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.

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

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