



an Open Access Journal by MDPI

# Virulence Mechanisms of Uropathogenic Bacteria

Guest Editors:

### Dr. Ritwij Kulkarni

Department of Biology, University of Louisiana at Lafayette, Lafayette, Louisiana, USA

#### Dr. Jennifer N. Walker

Department of Microbiology and Molecular Genetics, McGovern Medical School, Houston, TX, USA

Deadline for manuscript submissions: **15 July 2024** 



Message from the Guest Editors

Urinary tract infections (UTIs) are considered a major public health concern across the globe due to the continual emergence of antibiotic-resistant uropathogens. Over the last two decades, researchers have sought to improve our understanding of the specific bacterial fitness, virulence mechanisms, and host susceptibilities important for urinary pathogenesis with an eye towards developing novel therapeutic strategies.

For this Special Issue, we seek manuscripts examining the uropathogens physiology of in the urinary microenvironment. We are interested in manuscripts global transcriptomes/metabolomes examining of uropathogens isolated from infected mice or humans as well as manuscripts comparing WT and specific virulence gene knockout mutants side-by-side in mouse models of uncomplicated, ascending, or complicated UTIs. In additon to uropathogenic Escherichia coli (UPEC), uropathogens of interest include, but are not limited to, Klebsiella pneumoniae, Proteus spp., group B Streptococcus (GBS), Staphylococcus aureus methicillin-resistant (MRSA). Enterococcus faecalis, and Pseudomonas aeruginosa.

Dr. Ritwij Kulkarni Dr. Jennifer N. Walker *Guest Editors* 







an Open Access Journal by MDPI

# **Editor-in-Chief**

**Prof. Dr. Lawrence S. Young** Warwick Medical School, University of Warwick, Coventry CV4 7AL, UK

### 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.

# **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, PMC, Embase, PubAg, CaPlus / SciFinder, AGRIS, and other databases.

**Journal Rank:** JCR - Q2 (*Microbiology*) / CiteScore - Q2 (*General Immunology and Microbiology*)

# **Contact Us**

Pathogens Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/pathogens pathogens@mdpi.com X@Pathogens\_MDPI