



## The Science of Shiga Toxin-Producing (Verotoxin-Producing) *Escherichia coli* (STEC): An Ongoing One Health Journey toward Improved Health and Food Safety

Guest Editors:

**Prof. Dr. Tim A. McAllister**

**Dr. Kim Stanford**

**Prof. Dr. Linda Chui**

**Dr. Chad R. Laing**

**Dr. Nicole Van De Kar**

**Dr. Flemming Scheutz**

**Dr. Patricia Griffin**

**Dr. Gillian Tarr**

Deadline for manuscript  
submissions:

**closed (30 June 2023)**

### Message from the Guest Editors

Verotoxigenic *Escherichia coli* (VTEC), also called Shiga toxin-producing *Escherichia coli* (STEC), are major pathogens transmitted by food, water, animals and their environment, and directly from one person to another. They typically cause diarrheal illness but can also cause severe systemic disease, particularly in children and the elderly. Virulence is associated with a type III secretion system, which enables injection of bacterial effector proteins into host cells. In addition, Shiga toxins damage the kidneys and cause the hemolytic uremic syndrome. No specific treatment is available for STEC infection. A better understanding of the pathogenesis and epidemiology of STEC infection is needed with an emphasis on One Health-approach solutions to the disease. This includes improved detection, understanding of reservoirs, control and detection in the food chain, and an understanding of STEC ecology. For this Special Issue, we invite researchers to submit a review or original research article related to STEC detection, pathogenesis, epidemiology, ecology, or food safety that reflects the scientific community's continued efforts to prevent and ameliorate STEC infections.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Dr. Nico Jehmlich**

Department of Molecular  
Toxicology, UFZ-Helmholtz  
Centre for Environmental  
Research, 04318 Leipzig,  
Germany

## Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

## 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, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

**Journal Rank:** JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

## Contact Us

*Microorganisms* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/microorganisms](http://mdpi.com/journal/microorganisms)  
[microorganisms@mdpi.com](mailto:microorganisms@mdpi.com)  
X@Micro\_MDPI