Special Issue

Shiga Toxin: Occurrence, Pathogenicity, Detection and Therapies

Message from the Guest Editor

Shiga toxin-producing *Escherichia coli* (STEC) are the third leading cause of foodborne illness after *Campylobacter* and *Salmonella*, and implicated in 265,000 illnesses in the US and 2.8M infections globally. Following infection, some individuals remain asymptomatic, while others develop watery or bloody diarrhea that may progress to fatal secondary sequelae. Virulence factors such as the phage-encoded Shiga toxins (Stx), plasmid-encoded hemolysin and various adherence factors including intimin, encoded by the *eae* gene on the pathogenicity-island Locus of Enterocyte Effacement, play a significant role in human disease. Stx contribute towards STEC pathogenicity in humans through niche establishment, nutrient acquisition, immune response modulation/evasion and targeted cell pathology. In this SI, we seek to provide a comprehensive collection of publications on Stx in the context of (i) toxin structure, acquisition, evolution, variants, mode of action, (ii) host-pathogen interaction-structural and immune, (iii) disease prediction and risk assessment, (iv) toxin detection and targeted therapies. Review and research papers describing established and novel concepts are welcome.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

Editor-in-Chief

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