Special Issue

Recent Advances in Etiology of Shiga Toxins

Message from the Guest Editor

Shigellosis, caused by Shiga toxin (Stx)-producing *Shigella dysenteriae* serotype 1 or Stx-producing *Escherichia coli* (STEC), continues to be a major public health threat and is a particular concern because of the potential to develop life-threatening extra-intestinal complications such as acute renal failure (hemolytic uremic syndrome (HUS)) and CNS complications such as seizures, paralysis, and death. Once Shiga toxins (Stxs) are internalized following toxin-receptor binding on the host cellular surface, they are trafficked into the Golgi apparatus and to the ER in a retrograde manner in order to enter the host cell cytosol, leading to various host cellular responses, including protein synthesis inhibition and apoptosis through ER stress, autophagy, and inflammation. The distinct investigations into the host cell signaling responses activated by Stxs as multi-functional proteins will be necessary in order to identify novel targets for intervention in the pathogenesis. This Special Issue of *Toxins* will focus on recent advances in the etiology of Shiga toxins.

Guest Editor

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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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