



*toxins*



an Open Access Journal by MDPI

## Cellular Entry of Binary and Pore-Forming Bacterial Toxins

Guest Editor:

**Prof. Alexey S. Ladokhin**

Department of Biochemistry and  
Molecular Biology, The University  
of Kansas Medical Center, Kansas  
City, Kansas 66160-7421, USA

Deadline for manuscript  
submissions:

**closed (30 July 2017)**

### Message from the Guest Editor

Dear Colleagues,

Bridging cellular membranes is a key step in the pathogenic action of both binary and pore-forming toxins. The former use their translocation domains, containing various structural motifs, to ensure efficient delivery of the toxic component into host cell, while the latter act on cellular membrane itself. In either case, the integrity of the membrane is compromised via targeted protein–lipid and protein–protein interactions triggered by specific signals.

This Special Issue presents recent advances in characterizing functional, structural and thermodynamic aspects of the conformational switching and membrane interactions involved in the cellular entry of bacterial protein toxins. Deciphering the physicochemical principles underlying these processes is also a prerequisite for the use of protein engineering to develop toxin-based molecular vehicles capable of targeted delivery of therapeutic agents to tumors and other diseased tissues.

Dr. Alexey S. Ladokhin  
*Guest Editor*



[mdpi.com/si/8019](http://mdpi.com/si/8019)

**Special** Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Jay Fox

Department of Microbiology,  
University of Virginia,  
Charlottesville, VA, USA

## 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.

## 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, MEDLINE, PMC, Embase, CAPlus / SciFinder, AGRIS, and other databases.**

**Journal Rank:** JCR - Q1 (Toxicology) / CiteScore - Q1 (Toxicology)

## Contact Us

---

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

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

[mdpi.com/journal/toxins](http://mdpi.com/journal/toxins)  
[toxins@mdpi.com](mailto:toxins@mdpi.com)  
[X@Toxins\\_Mdpi](https://twitter.com/Toxins_Mdpi)