



*toxins*



an Open Access Journal by MDPI

## Insect Resistance to *Bacillus thuringiensis* Toxins

Guest Editor:

### **Prof. Dr. Yidong Wu**

Department of Entomology,  
College of Plant Protection,  
Nanjing Agricultural University,  
Nanjing 210095, China

Deadline for manuscript  
submissions:

**closed (30 November 2021)**

### **Message from the Guest Editor**

The insecticidal toxins (Cry and VIP proteins) produced by the bacterium *Bacillus thuringiensis* (*Bt*) have been successfully used to control some major insect pests via both *Bt* formulation sprays and transgenic crops. The global planting area of *Bt* crops increased from 1 million hectares in 1996 to 108 million hectares in 2019. However, practical resistance to *Bt* crops has been reported in at least nine major pest insects. The evolution of resistance to *Bt* toxins by target pests has been a major threat to the long-term effectiveness of *Bt* crops. Understanding the evolution and mechanism of *Bt* resistance is essential for developing sensitive resistance detection methods and adaptive resistance management strategies.

The aim of this Special Issue is to create a collection of recent advances in all aspects of insect resistance to *Bt* toxins, including detection and monitoring of *Bt* resistance, genetics and mechanisms of *Bt* resistance, mode of action of *Bt* toxins, and resistance management strategies. Both original research and review articles are welcomed.



[mdpi.com/si/88004](https://mdpi.com/si/88004)

# 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](#)