

## Special Issue

# Human Antibody Engineering for Prevention and Treatment of Botulism

### Message from the Guest Editors

Botulinum neurotoxins have attracted the attention of researchers due to their extreme potency, unique mechanism of action, therapeutic applications, causation of the naturally occurring disease botulism and potential for misuse. While historically polyclonal antitoxins produced from immunized horses or humans have been used to treat botulism, engineered human antibodies produced from cell lines offer a number of significant advantages. The need for engineered human antitoxins has increasing urgency due to renewed concerns about the use of bioweapons and the aging of the existing equine antitoxin stockpile. The purpose of this Special Issue of *Toxins* is to report on various antibody engineering efforts on next-generation botulinum antitoxins. The scope of this Special Issue includes the development and application of immunotherapy to treat and prevent botulism from multiple botulinum neurotoxin serotypes.

### Guest Editors

Dr. Shauna Farr-Jones

Dr. Milan T. Tomic

Prof. Dr. James D. Marks

### Deadline for manuscript submissions

closed (30 December 2023)



## Toxins

an Open Access Journal  
by MDPI

Impact Factor 4.0  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/si/122221](https://mdpi.com/si/122221)

*Toxins*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[toxins@mdpi.com](mailto:toxins@mdpi.com)

[mdpi.com/journal/  
toxins](https://mdpi.com/journal/toxins)





# Toxins

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.0  
CiteScore 8.2  
Indexed in PubMed



[mdpi.com/journal/  
toxins](https://mdpi.com/journal/toxins)



## 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

Prof. Dr. Jay Fox

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

---

### Author Benefits

#### 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)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).