

## Special Issue

# Clinical Application of Botulinum Toxin

### Message from the Guest Editor

Botulinum toxin has been approved for many disorders, including movement disorders, autonomic disorders (i.e., secretory, bladder), pain, and ophthalmologic uses. Among movement disorders, it has revolutionized the treatment of focal spasticity of upper and lower limbs, focal dystonias, and some other rare conditions. In spasticity and dystonia, the mode of action of botulinum toxin is complex and is not only based on a blockage of acetylcholine release at the neuromuscular junction, leading to muscle weakness. The focus of this Special Issue of *Toxins* will be on botulinum toxin treatment of movement disorders, in all its aspects: Treatment outcomes in focal spasticity, dystonias, tremors, and other movement disorders; effects of different serotypes; dosing and side effects; antigenicity; evidence-based medicine; guided injection techniques (ultrasound, EMG, stimulation, imaging); sensorimotor aspects of mode of action; and others.

### Guest Editor

Prof. Dr. Markus Naumann

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### Deadline for manuscript submissions

closed (31 August 2022)



## Toxins

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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.

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### Editor-in-Chief

Prof. Dr. Jay Fox

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

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