Special Issue

Potency, Duration of Action, and Pharmacodynamics of Human Neurotoxins

Message from the Guest Editors

Natural and synthetic neurotoxins utilize numerous mechanisms to intoxicate and persist in their hosts. For example, botulinum neurotoxins (BoNTs) are the most potent protein toxins for humans. BoNTs are produced by the anaerobic spore forming clostridia, primarily C. botulinum. Botulism is characterized by long-lasting flaccid paralysis due to the continuous block of neurotransmitter release at neuromuscular junctions. While the overall basis for entry into neurons and mechansim of cleavage and recogniton SNARE proteins are similar, individual BoNT serotypes and subtypes differ in potency, onset of symptoms, duration of action, pharmacodynamic behavior, and species specificity. Research into these mechanisms will provide insights in the expansion of BoNT pharmaceutical potential and development of countermeasures and treatment modalities against botulism. This series welcomes primary articles and reviews that address the basis for the biological spectrum of the action of BoNTs and other neurotoxins on neurons, humans, and model systems, utilizing informatics, computational biology, and laboratory-based approaches.

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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.

Editor-in-Chief

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