



## Biological Toxins: Challenges and Medical Countermeasures

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### Message from the Guest Editor

In order to promptly identify an attack with biological agents, reasonably good assays for a range of biological toxins must be available. Nevertheless, the immense diversity of microorganisms and toxins represents a major challenge. As a consequence, there is a pressing need for rapid, standardized methods that ensure the detection of a broad spectrum of potential biological weapons in a quantitative fashion. It is also essential to standardize analytical tools and produce reliable reference materials. Moreover, botulinum toxin is also available in licensed drugs for the treatment of a variety of medical disorders, in addition to its increased use in cosmetic and aesthetic medicine. A wide range of available in vitro analytical tools are currently employed globally for the detection and measurement of biological toxins' potency, as well as for countermeasures assessment. However, there is also a need to reduce the use of animals globally. The evaluation of currently available in vitro methods for the detection of biological toxins and the replacement of animal models will have a great impact on public health and economy.





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## Message from the Editor-in-Chief

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