

## Special Issue

# Analysis and Evaluation of Tetrodotoxin

### Message from the Guest Editors

Tetrodotoxin (TTX) is a naturally occurring toxin that may contaminate the food chain, inducing neurological symptoms in humans by selective and extracellular binding to receptor-site 1 of voltage-gated sodium channels (Nav). TTX is an extremely potent alkaloid typical of warm ecosystems that, over recent years, has appeared more frequently in countries with temperate waters, including New Zealand, Japan, UK, Netherlands, Greece, Spain, and Italy. TTX and its analogues are not monitored on a regular basis in the EU, and no maximum permitted level has been defined, although concentrations lower than 44 µg of TTX eq/kg of shellfish meat are not expected to harm humans. This Special Issue is focused on the occurrence of TTXs in new areas and in new species, the emerging risks, analytical methods for their detection and quantification, rapid tests for screening, and the in vivo and in vitro toxicology, mode of action, and effects on neuronal function and brain development. Moreover, the chronic effects of low doses of neurotoxins on animal and human health are also of interest.

### Guest Editors

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### Deadline for manuscript submissions

closed (31 July 2021)



## Toxins

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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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Prof. Dr. Jay Fox

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