

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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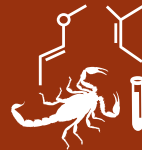
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Deadline for manuscript submissions

closed (31 July 2021)



Toxins

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Impact Factor 4.0
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/44066

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Editor-in-Chief

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