



Omic Technologies Applied to the Study of Marine Shellfish Toxins

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closed (15 April 2021)

Message from the Guest Editors

Marine shellfish, especially filter feeders, can accumulate toxins in their tissues during harmful algal blooms. Toxins originated in phytoplankton species (dinoflagellates and diatoms principally) are ingested and are concentrated by shellfish. Consumption of toxin-containing shellfish can cause human health problems. Shellfish toxins also have adverse economic impacts, leading to harvesting closures. The so called “-omics” technologies (genomics, transcriptomics, proteomics, and metabolomics) allow the simultaneous detection and quantification of thousands of genes, mRNAs, proteins or metabolites in a specific biological sample.

In this Special Issue, we welcome papers on all aspects of -omics approaches applied to the study of marine shellfish toxins. Topics of interest include but are not limited to: mechanisms of uptake, distribution, metabolism and excretion of toxins in shellfish; effects of toxins in shellfish at the molecular, cellular and physiological levels; identification of biomarkers that can be used to study toxin exposure and its effects; and molecular mechanisms of toxicity and identification of toxin metabolites.





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Message from the Editor-in-Chief

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