

Special Issue

Omic Technologies Applied to the Study of Marine Shellfish Toxins

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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About the Journal

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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.

Editor-in-Chief

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