

Special Issue

Detection and Current Challenges in Marine and Freshwater Biotoxin Monitoring

Message from the Guest Editor

Marine and Freshwater toxins have in common the fact that they can have potent effects on human health. The monitoring of these toxins is challenging for several reasons: (i) the monitoring system put in place should be able to apprehend the known and the emerging toxins; (ii) this involves a great diversity of toxins of different chemical nature and properties, with only a small number of them being common to marine and freshwater environments; (iii) toxin standards are not always commercially available, thus impeding the development of the methods of analysis and toxin quantification; (iv) different methods of analysis (chemical methods and biomolecular assays) are available with pros and cons, but for many toxin groups, there is no reference method identified; (v) the complexity of the matrices to be analyzed can be problematic for the method of analysis used; (vi) toxicological data are necessary to take into account the toxicity of the different toxin analogues via the use of toxic equivalency factors, for instance, which are rarely available; and (vii) the sampling strategy is primordial and should be thought through to guarantee sample representativeness.

Guest Editor

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Message from the Editor-in-Chief

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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