



Genetic Analysis of Toxin-Producing Cyanobacteria

Guest Editor:

Dr. Elisabete Valério

Departamento de Saúde
Ambiental, Instituto Nacional de
Saúde Doutor Ricardo Jorge.
Avenida Padre Cruz, 1649-016
Lisboa, Portugal

elisabete.valerio@insa.min-
saude.pt

Deadline for manuscript
submissions:

31 December 2021

Message from the Guest Editor

Cyanobacteria make up a fascinating group of photosynthetic prokaryotes that are able to produce a wide range of bioactive compounds. However, their worldwide distribution brings special worries for the environment and public health due to the toxicity of some of these compounds.

The analyses of the cyanobacterial genomes has been unravelling the gene clusters involved in many toxins produced by cyanobacteria (cyanotoxins). This research has enabled us to understand the phylogenetic origins of some of the cyanotoxins, the genetic differences between toxic and nontoxic strains, and the development of methodologies to quickly and easily detect toxin-producing cyanobacteria. Moreover, there are growing efforts taking place to understanding how environmental factors influence the expression of cyanotoxin-related genes.

This Special Issue aims to aggregate papers that provide the most recent information on genetic analyses of toxin-producing cyanobacteria through molecular approaches such as ‘whole-genome sequencing’, metagenomics, qPCR or PCR.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Jay Fox

Department of Microbiology,
University of Virginia,
Charlottesville, VA, USA

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.

Author Benefits

Open Access:— free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Embase](#), [CAPLUS / SciFinder](#), and many other databases.

Journal Rank: [JCR - Q1 \(Toxicology\)](#) / [CiteScore - Q1 \(Health, Toxicology and Mutagenesis\)](#)

Contact Us

Toxins
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
www.mdpi.com

mdpi.com/journal/toxins
toxins@mdpi.com
[@Toxins_Mdpi](https://twitter.com/Toxins_Mdpi)