Special Issue

Venom Genes and Genomes of Venomous Animals: Evolution and Variation

Message from the Guest Editors

The evolution of a gene occurs not only after point mutations, insertions, or deletions of sequences, but also due to its location in the genome, which may encompass recombinations, duplications, and/or other events. In this way, it is interesting to study not only the toxin and its genes, but also the genome of venomous animals in all forms of organization, which includes chromosomes and chromosome evolution. In addition. the localization of toxin genes in the chromosome can influence the expression of that toxin. Thus, this Special Issue aims to publish work performed on toxins at the genetic level, as well as work related to the genomes and chromosomes of venomous animals from evolutionary and multidisciplinary perspectives. As a result, the issue will observe the evolution of toxins and poisons in an interdisciplinary way. Reviews and research papers on the genetic and biochemical aspects of venom polymorphism, toxin variation, toxin expression, and genomes of venomous animals are accepted.

Guest Editors

Dr. Nancy Oguiura

Ecology and Evolution Laboratory, Instituto Butantan, Sao Paulo 05503-900. SP. Brazil

Dr. Maria José J. Silva

Ecology and Evolution Laboratory, Instituto Butantan, Sao Paulo 05503-900, SP, Brazil

Deadline for manuscript submissions

28 July 2025



Toxins

an Open Access Journal by MDPI

Impact Factor 4.0
CiteScore 8.2
Indexed in PubMed



mdpi.com/si/169451

Toxins
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
toxins@mdpi.com

mdpi.com/journal/ toxins





Toxins

an Open Access Journal by MDPI

Impact Factor 4.0 CiteScore 8.2 Indexed in PubMed



About the Journal

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.

Editor-in-Chief

Prof. Dr. Jay Fox

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

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, MEDLINE, PMC, Embase, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Toxicology) / CiteScore - Q1 (Toxicology)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.8 days (median values for papers published in this journal in the first half of 2025).

