



## Venomomics Insights into the Evolutionary Biology of Peptide Toxins in Marine and Terrestrial Organisms

Guest Editors:

**Prof. Dr. Gandhi Rádís-Baptista**

1. Laboratory of Biochemistry and Biotechnology, Institute for Marine Sciences, Federal University of Ceara, Fortaleza 60165-081, CE, Brazil

2. Dept. of Biochemistry and Biophysics, Institute of Health Sciences, Federal University of Bahia, Salvador 40110-100, BA, Brazil

**Dr. Hidetoshi Inagaki**

Biomedical Research Institute, National Institute of Advanced Industrial Science and Technology, 1-1-1 Higashi, Tsukuba 305-8566, Ibaraki, Japan

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### Message from the Guest Editors

Indeed, biological diversity can be understood and translated into combinatorial chemical and pharmacological possibilities. Modern venomomics has advanced so well in technological aspects that the tiniest and hidden organisms can be assessed for their toxin contents and repertoires. The combination of "omics" sciences (genomics, transcriptomics, proteomics, etc.), computational biology, and essential pharmacological assays, such as in vitro 2-D, 3-D, and organoid cell systems, electrophysiology (e.g., voltage and patch-clamp recording), and in vivo insect (e.g., cricket), mouse, and zebrafish models, allow for and make possible the discovery of toxin structures, scaffolds, activities, and functionalities that have contributed to translating the basic research on toxins into different fields of applied sciences—from pest control (e.g., ion-channel blocker bioinsecticides) to diagnosing and treating chronic and degenerative diseases (peptide probes and antidiabetic, immunomodulator, and painkiller drugs).





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## Editor-in-Chief

### **Prof. Dr. Jay Fox**

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

## Message from the Editor-in-Chief

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*Toxins* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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