DESCRIPTION

Toxicon has an open access mirror Toxicon: X which has the same aims and scope, editorial board and peer-review process. To submit to Toxicon: X visit https://www.editorialmanager.com/TOXCX/default.aspx.

An introductory offer Toxicon: X - full waiver of the Open Access fee.

Toxicon's "aims and scope" are to publish: articles containing the results of original research on problems related to toxins derived from animals, plants and microorganisms papers on novel findings related to the chemical, pharmacological, toxicological, and immunological properties of natural toxinsmolecular biological studies of toxins and other genes from poisonous and venomous organisms that advance understanding of the role or function of toxins clinical observations on poisoning and envenoming where a new therapeutic principle has been proposed or a decidedly superior clinical result has been obtained. material on the use of toxins as tools in studying biological processes and material on subjects related to venom and antivenom problems. articles on the translational application of toxins, for example as drugs and insecticides epidemiological studies on envenoming or poisoning, so long as they highlight a previously unrecognised medical problem or provide insight into the prevention or medical treatment of envenoming or poisoning. Retrospective surveys of hospital records, especially those lacking species identification, will not be considered for publication. Properly designed prospective community-based surveys are strongly encouraged. articles describing well-known activities of venoms, such as antibacterial, anticancer, and analgesic activities of arachnid venoms, without any attempt to define the mechanism of action or purify the active component, will not be considered for publication in Toxicon. review articles on problems related to toxinology.

To encourage the exchange of ideas, sections of the journal may be devoted to Short Communications, Letters to the Editor and activities of the affiliated societies.

Toxicon strives to publish articles that are current and of broad interest and importance to the toxinology research community. Emphasis will be placed upon articles that further the understanding and knowledge of toxinology.

Types of paper

Full-Length Research Papers: Articles containing the results of original research on problems related to toxins derived from animals, plants and microorganisms.
**Short Communications:** Short communications differ from full manuscripts only in that the research study does not lend itself to an extended presentation. Even though brief, the Short communication should represent a complete, coherent and self contained study. The quality of Short Communications is expected to be as good as that of full articles, and both full articles and Short communications will be refereed in an identical manner. The form is identical to that for a full article except that the report should not be divided into Introduction, Materials and Methods, Results and Discussion. An abstract of not more than 75 words should be provided. The Short Communication may not be longer than five double-spaced typewritten pages (not including references, tables and figures) and should include not more than two tables of two figures or one of each.

**Letters to the Editor:** These may be published if judged by the Editor to be of interest to the broad field of toxinology or of special significance to a smaller group of workers in a specialized field of toxinology. They should be headed `Letter to the Editor' which should be followed by a title for the communication. Names of authors and affiliations should be at the end of the letter.

**Announcements:** *Toxicon* will only accept for publication announcements of great interest to toxinologists, such as notices of relevant meetings and symposia and activities of the International Society of Toxinology, The Brazilian Society of Toxinology, and the North American Society of Toxinology.

**Reviews and mini-Reviews:** *Toxicon* will publish reviews and mini-reviews on topics of interest to toxinologists. Suggestions for reviews or mini-reviews can be made at any time to the Editor-in-Chief or the relevant Associate Editor. In addition, articles of significant broad interest to toxinologists that are published in journals other than *Toxicon* may be abstracted in the Reviews section of *Toxicon*. Readers who feel that a particular article or book should be abstracted in this section are encouraged to bring their opinion to the attention of one of the Editor-in-Chief.

**Clinical reports:** *Toxicon* will publish clinical reports on poisoning or envenoming where a new therapeutic principle has been proposed or a decidedly superior clinical result has been established. Please consult the Clinical Reports Guidelines.

**AUDIENCE**

Toxicologists, toxinologists, molecular biologists and chemists.

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Co-Editors-in-Chief

Glenn King, The University of Queensland Institute for Molecular Bioscience, Brisbane, 4072, Australia, Fax: +61 7 3346-2101
Venoms-based discovery of drugs and bioinsecticides; venom-derived ion channel modulators; venom evolution; toxin structure and function.

Raymond S. Norton, Monash Institute of Pharmaceutical Sciences, Parkville Campus, 381 Royal Parade, Parkville, VIC 3052, Australia
Peptides, Proteins, Drug design, Structural biology, Marine toxins, Malaria, Biophysics

Associate Editors

Envenoming & Antivenoms

Jose Maria Gutiérrez, Costa Rica University Clodomiro Picado Institute, Contiguo a la plaza de deportes, Dulce Nombre de Coronado, 11501-2060, San José, Costa Rica
Toxinology; Tissue lesions in envenomings; Viperidae envenomings; Antivenoms

Bacterial Toxins

Ornella Rossetto, University of Padua Department of Biomedical Sciences, Via Ugo Bassi 58/B, 35121, Padova, Italy
Bacterial neurotoxins; Botulism

Environmental Toxins

Brett A. Neilan, The University of Newcastle School of Environmental and Life Sciences, University Drive, Callaghan, 2308, Australia
Synthetic Biology, Cyanobacteria, Complex Biosynthesis, Microbiology, Biotechnology

Venom Toxins

Denise Tambourgi, Butantan Institute Immunochemistry Laboratory, 05503-900, Sao Paulo, Brazil
Venom toxins

Plant Toxins

Kevin Welch, USDA-ARS Poisonous Plant Research, 1150 E 1400 N, UT 84341, Logan, Utah, United States of America
Toxicology and poisonous plants

Editorial Council

Klaus Aktories, University of Freiburg Institute of Experimental and Clinical Pharmacology and Toxicology, Freiburg, Germany
Bacterial toxins; Bacterial pathogenesis

Isaac Asuzu, University of Nigeria, Dept. of Veterinary Pharmacology and Physiology, Nsukka, Nigeria
Pharmacology and toxicology of natural products (plants and animal origin). Alternative treatments for snakebite envenoming.

Gregory L. Boyer, SUNY College of Environmental Science and Forestry Department of Chemistry, Syracuse, New York, United States of America
Biochemistry and bioactive natural products; Aquatic ecosystems; Eutrophication

Bryan W. Brooks, Baylor University Department of Environmental Science, Waco, Texas, United States of America
Water Quality, Environmental and Aquatic Eco-Toxicology, Risk and Hazard Assessment, Comparative Pharmacology and Toxicology, Environmental Public Health, Harmful Algal Blooms, Green and Sustainable Chemistry, Urban and Aquatic Ecology, Water Reuse.

Juan Calvete, Biomedical Institute of Valencia, Valencia, Spain
Evolutionary and translational proteomics of snake venoms, "venomics" and "antivenomics", for exploring the evolution, composition, interactions with antivenoms, and biotechnological applications of venoms and toxins

Célia R. Carlini, Pontifical Catholic University of Rio Grande do Sul, Brain Institute & School of Medicine, Porto Alegre, Brazil
Neurotoxins, hemotoxins, microbial toxins, plant toxins, toxic proteins and peptides, protein characterization

Frederic Ducancel, Center for Immunology of Viral, Auto-immune, Hematological and Bacterial diseases, Paris-Saclay University Inserm CEA, Fontenay aux Roses, France
Protein toxins

Ponnampalam Gopalakrishnakone, National University Singapore Department of Anatomy, Singapore, Singapore
Identification and characterization of channel toxins; Venom secreting apparatus; Immunology and cloning of toxins; Naturally occurring antitoxic factors

Robert Harrison, Liverpool School of Tropical Medicine Centre for Snakebite Research & Interventions, Liverpool, United Kingdom
Therapeutic, diagnostic, public health and medical aspects of snakebite

Wayne Hodgson, Monash University Department of Pharmacology, Clayton, Victoria, Australia
Venom, toxin, snake, antivenom, neuromuscular, vascular

Ryan Huxtable, University of Arizona College of Medicine, Tucson, Arizona, United States of America
Pharmacology and toxicology

Geoff Isbister, The University of Newcastle Faculty of Health and Medicine, Callaghan, Australia
Snake antivenom; Spider antivenom; Clotting disorders due to snake envenoming

Evanguedes Kalapothakis, Universidade Federal de Minas Gerais Departamento de Genetica Evolucao e Ecologia, BELO HORIZONTE, Brazil
Scorpion and spider toxins, molecular biology, transcriptome

William Kem, University of Florida Department of Pharmacology and Therapeutics, Gainesville, Florida, United States of America
Molecular pharmacology of peptide, protein and alkaloid toxins; nicotonic acetylcholine receptors; drug design

R. Manjunatha Kini, NUS Department of Biological Sciences, Singapore, Singapore
Protein chemistry; structure-function relationships; thrombosis and hemostasis; protein design and engineering; cardiovascular drugs

Igor Krizaj, Jožef Stefan Institute, Department of Molecular and Biomedical Sciences, Ljubljana, Slovenia
Toxinoxinology, neurotoxicity, haematotoxicity, molecular mechanisms, venoms to drugs; Phospholipases A2, their inhibitors and activators; Proteomics and protein structure: structure-function relationships.

Michel Lazdunski, Institute of Molecular and Cellular Pharmacology, Valbonne, France
Molecular pharmacology; Ion channels; Venoms; Toxins

Richard Lewis, The University of Queensland Institute for Molecular Bioscience, Brisbane, Australia
Acetylcholine receptors, nicotine, N-methyl-D-aspartate (NMDA), ion channels, receptor gated ion channels, transporters

Marie-France Martin-Eauclaire, Mediterranean University Hospital Institute for Infectious Diseases, Marseille, France
Pharmacology and toxicology, Scorpion venoms and toxins, Structure-function relationships of toxins

Dietrich Mebs, Goethe University Frankfurt Institute of General Medicine, Frankfurt am Main, Germany
Toxicology, Natural Toxins

Cesare Montecucco, University of Padua Department of Neuroscience, Padova, Italy
Bacterial and animal neurotoxins, tetanus neurotoxin, botulism neurotoxins, neurotoxic snakes, neuromuscular junction

Graham M. Nicholson, University of Technology Sydney School of Life Sciences, Broadway, New South Wales, Australia
Voltage-gated ion channels, spider toxins, biopesticides, snake neurotoxins

Baldomero Olivera, The University of Utah School of Biological Sciences, Salt Lake City, Utah, United States of America
Ion channels; Membrane receptors; Sensory transduction; Conotoxins

Mark A. Poli, United States Army Medical Research Inst. of Infectious Diseases (USAMRIID), Div. of Integrated Toxicology, Ft. Detrick, Maryland, United States of America
Toxicology; Immunodiagnostics

Lourival Domingos Possani, National Autonomous University of Mexico Biotechnology Institute, Morelos, Mexico
Scorpion venom components: isolation structure and function

Solange M.T. Serrano, Butantan Institute Special Laboratory of Applied Toxinology, Sao Paulo, Brazil
Snake venoms, proteomic analysis of animal toxic secretions, serine proteinases, metalloproteinases

W. Thomas Shier, University of Minnesota Department of Chemistry, Minneapolis, Minnesota, United States of America
Mycotoxins, particularly aflatoxins, fumonisins and botryodiplodin; mycotoxin biosynthesis; mycotoxins in food safety; mycotoxin mechanisms of action; effects of food processing on mycotoxins; agricultural impacts of mycotoxins.

Kaarina Sivonen, University of Helsinki Department of Food and Environmental Sciences, HELSINKI, Finland
Cyanobacteria; Toxins; Bioactive compounds

Toru Tamiya, Sophia University Faculty of Science and Technology Graduate School of Science and Technology Department of Chemistry, Chiyoda-Ku, Japan
Marine toxins; Snake venom

Aurelia Tubaro, University of Trieste Department of Life Sciences,
In vivo and in vitro Toxic effects of algal toxins, including studies on their mechanism of action - New methods for the detection of algal and cyanobacteria toxins (Palytoxins, Azaspiracids, okadaic acid, dynophysistoxin, yessotoxins).

**Jan Tytgat**, KU Leuven Toxicology and Pharmacology, Leuven, Belgium
Animal, plant and bacterial toxins; Xenobiotics (drugs, medication, pesticides, industrial products like solvents, PAKs, ...)

**David Warrell**, University of Oxford Nuffield Department of Medicine, Oxford, United Kingdom
Clinical toxicology, snakebite envenoming, venomous bites and stings, scorpions, spiders, hymenoptera, clinical trials of antivenoms

**Julian White**, Women's and Children's Hospital Adelaide Department of Toxinology, North Adelaide, South Australia, Australia
Clinical toxicology; snakebite; arthropod envenoming; mushroom poisoning; toxinology training; antivenom production and use

**Yun Zhang**, Kunming Institute of Zoology Chinese Academy of Sciences, Kunming, China
Toxins from various bio-resources

**Russolina Zingali**, Federal University of Rio de Janeiro Institute of Medical Biochemistry, RIO DE JANEIRO, Brazil
Toxinology, Hemostasis, Proteomics

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Clinical toxicology; snakebite; arthropod envenoming; mushroom poisoning; toxinology training; antivenom production and use
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INTRODUCTION

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Official Journal of The International Society on Toxinology (http://www.toxinology.org/), Toxicon’s "aims and scope" are laid down in the journal as:

To publish:
• articles containing the results of original research on problems related to toxins derived from animals, plants and microorganisms
• papers on novel findings related to the chemical, pharmacological, toxicological, and immunological properties of natural toxins
• molecular biological studies of toxin and other genes from poisonous and venomous organisms that advance understanding of the role or function of toxins
• clinical observations on poisoning and envenoming where a new therapeutic principle has been proposed or a decidedly superior clinical result has been obtained. Toxicon will not accept single-case reports unless they describe new, previously unreported, clinical features; envenomings or poisonings by rare animals, plants, fungi or microorganisms for which there is little or no clinical information in the literature; or treatment that employs a new therapeutic principle for which effectiveness is convincingly demonstrated. Such case reports must include: (1) expert species identification; (2) meticulous clinical documentation of symptoms, signs, laboratory data, treatment and clinical outcomes; (3) originality (adding to knowledge of the clinical phenotype); (4) where feasible, photographic documentation of clinical signs.
• material on the use of toxins as tools in studying biological processes and material on subjects related to venom-antivenom problems
• articles on the translational application of toxins, for example as drugs and insecticides
• epidemiological studies on envenoming or poisoning, so long as they highlight a previously unrecognised medical problem or provide insight into the prevention or medical treatment of envenoming or poisoning. Retrospective surveys of hospital records, especially those lacking species identification, will not be considered for publication. Properly designed prospective community-based surveys are strongly encouraged.
• articles describing well-known activities of venoms, such as antibacterial, anticancer, and analgesic activities of venoms, without any attempt to define the mechanism of action or purify the active component, will not be considered for publication in Toxicon
• review articles on problems related to toxinology.

And

To encourage the exchange of ideas, sections of the journal may be devoted to Short Communications, Letters to the Editor and activities of the International Society on Toxinology.

Toxicon strives to publish articles that are current and of broad interest and importance to the toxinology research community. Emphasis will be placed upon articles that further the understanding and knowledge of toxinology.

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Short Communications: Short communications differ from full manuscripts only in that the research study does not lend itself to an extended presentation. Even though brief, the Short communication should represent a complete, coherent and self contained study. The quality of Short Communications is expected to be as good as that of full articles, and both full articles and Short communications will

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be refereed in an identical manner. The form is identical to that for a full article except that the report should not be divided into Introduction, Materials and Methods, Results and Discussion. An abstract of not more than 75 words should be provided. The Short Communication may not be longer than five double-spaced typewritten pages (not including references, tables and figures) and should include not more than two tables of two figures or one of each.

**Correspondence:** These may be published if judged by the Editor to be of interest to the broad field of toxinology or of special significance to a smaller group of workers in a specialized field of toxinology. They should be headed 'Correspondence' which should be followed by a title for the communication. Names of authors and affiliations should be at the end of the letter.

**Reviews and Short Reviews:** Articles of interest to toxinologists which are published in journals other than *Toxicon* may be abstracted in the Reviews section of *Toxicon*. Readers who feel that a particular article or book should be abstracted in this section are encouraged to bring their opinions to the attention of one of the Review Editors. Mini-Reviews and proposals for mini-Reviews are welcome.

**Case reports:** *Toxicon* will publish clinical reports on poisoning where a new therapeutic principle has been proposed or a decidedly superior clinical result has been established. Please observe the following: *Case Reports Guidelines.*

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