DESCRIPTION

Comparative Biochemistry & Physiology (CBP) publishes papers in comparative, environmental and evolutionary physiology.

Part C: Toxicology and Pharmacology (CBPC), focuses on toxicological mechanisms at different levels of organization, primarily chemical and drug action, biotransformation of xenobiotics, endocrine disruptors, nanoparticles, pharmaceuticals, and natural products chemistry. Most studies employ a molecular approach in combination with observations of higher levels of organization to assess the mechanism by which xenobiotics affect physiology. Analytical verification of exposure concentrations is strongly recommended for manuscripts reporting toxicological studies.

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Part B (CBPB): Biochemistry & Molecular Biology
Part D (CBPD): Genomics & Proteomics
AUDIENCE

Physiologists, Toxicologists, Pharmacologists, Biologists, Veterinary and Medical Researchers.

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INTRODUCTION

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The journal publishes original articles emphasizing comparative and environmental aspects of the physiology, biochemistry, molecular biology, pharmacology, toxicology and endocrinology of animals. Adaptation and evolution as organizing principles are encouraged. Studies on other organisms will be considered if approached in a comparative context.

Part A. Molecular and Integrative Physiology covers molecular, cellular, integrative, and ecological physiology. Topics include bioenergetics, circulation, development, excretion, ion regulation, endocrinology, neurobiology, nutrition, respiration, and thermal biology. Studies on regulatory mechanisms at any level or organization such as signal transduction and cellular interactions and control of behaviour are encouraged.

Part B. Biochemistry and Molecular Biology covers biochemical and molecular biological aspects of metabolism, enzymology, regulation, nutrition, signal transduction, promoters, gene structure and regulation, metabolite and cell constituents, macromolecular structures, adaptational mechanisms and evolutionary principles.

Part C. Toxicology and Pharmacology covers chemical and drug action at different levels of organization, biotransformation of xenobiotics, mechanisms of toxicity, including reactive oxygen species and carcinogenesis, endocrine disruptors, natural products chemistry, and signal transduction. A molecular approach to these fields is encouraged. Measured rather than nominal exposure concentrations of toxicants must be reported whenever possible. For water-borne exposures of aquatic organisms, reporting of detailed chemistry data for the exposure waters is encouraged. When reporting data obtained from bioassays (e.g., LC50 tests), raw data (i.e., the value of the measured biological response variable(s) for each treatment and each observation time) should be submitted as online supplementary material.

Part D. Genomics and Proteomics covers the broader comprehensive approaches to comparative biochemistry and physiology that can be generally termed as "-omics", e.g., genomics, functional genomics (transcriptomics), proteomics, metabolomics, and underlying bioinformatics. Papers dealing with fundamental aspects and hypotheses in comparative physiology and biochemistry are encouraged rather than studies whose main focus is purely technical or methodological.

Naturally, a certain degree of overlap exists between the different sections, and the final decision as to where a particular manuscript will be published after passing the rigorous review process lies with the editorial office.

Types of articles published in CBP journals

A Research Paper is a paper that focuses on an experimental question of broad interest to the comparative physiology community.
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• Papers are normally subdivided into sections titled: Abstract, Introduction, Materials and Methods, Results, Discussion, and References. Results and discussion may be combined if appropriate.

A Short Communication is like a Regular Article in scope, but is of a nature that a complete story can be presented in a brief communication. As Short Communications are expected to have higher than average impact on the field rather than report on incremental research, they will receive prioritized and rapid publication.
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