**DESCRIPTION**

*Biochemical Pharmacology* publishes original research findings, Commentaries and review articles related to the elucidation of cellular and tissue function(s) at the biochemical and molecular levels, the modification of cellular phenotype(s) by genetic, transcriptional/translational or drug/compound-induced modifications, as well as the pharmacodynamics and pharmacokinetics of xenobiotics and drugs, the latter including both small molecules and biologics.

The journal’s target audience includes scientists engaged in the identification and study of the mechanisms of action of xenobiotics, biologics and drugs and in the drug discovery and development process.

All areas of cellular biology and cellular, tissue/organ and whole animal pharmacology fall within the scope of the journal. Drug classes covered include anti-infectives, anti-inflammatory agents, chemotherapeutics, cardiovascular, endocrinological, immunological, metabolic, neurological and psychiatric drugs, as well as research on drug metabolism and kinetics. While medicinal chemistry is a topic of complimentary interest, manuscripts in this area must contain sufficient biological data to characterize pharmacologically the compounds reported. Submissions describing work focused predominately on chemical synthesis and molecular modeling will not be considered for review.

While particular emphasis is placed on reporting the results of molecular and biochemical studies, research involving the use of tissue and animal models of human pathophysiology and toxicology is of interest to the extent that it helps define drug mechanisms of action, safety and efficacy.

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INTRODUCTION

Biochemical Pharmacology is an international peer reviewed journal devoted to publishing original research and invited reviews and commentaries on the interaction of chemical compounds with biological systems. Manuscripts describing experiments conducted with chemical mixtures, plant or animal extracts will not be considered for publication unless the chemical structures and precise concentrations of all substances are reported.

While particular emphasis is placed on reporting findings that relate to pharmacodynamics, pharmacokinetics, and metabolism of both small molecules and biologics at the biochemical and molecular levels, submissions in the areas of behavioral and physiological pharmacology and toxicology are considered if they describe studies directed at defining mechanisms of action. All areas related to the field of pharmacology are represented in the journal including, but not limited to, chemotherapy, neuropharmacology, inflammation/immunopharmacology, antimicrobials, behavioral, respiratory, gastrointestinal, cardiovascular and endocrine pharmacology and toxicology.

Reports describing de novo results of clinical studies and those that predominately or exclusively concern database mining and analysis and computational methodologies, e.g. CAMD, are outside the scope of the journal.

Types of papers

(1) Full-length Research Papers. Biochemical Pharmacology publishes original research on issues of relevance to the field of pharmacology.

(2) Reviews and Commentaries. These articles are by invitation only and provide the authors' views on a selected topic of interest to pharmacologists.

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Scientific Checklist

Table 1. Scientific Submission Checklist

Please answer the following questions with "Yes", "No", or "Not applicable".

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Introduction

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13. Was the investigator responsible for data analysis blinded to which samples/animals represent control and treatment groups?
14. Are the reported data displayed as means +/- standard deviation (SD)? Is the number of replicates of three or more independent experimental observations clearly indicated? Were post-hoc tests used to assess the statistical significance among means? Is the threshold for statistical significance (P value) clearly indicated?

Results
15. If western blots are shown, are the appropriate loading controls, replication data, and quantification and statistical analysis shown?
16. If PCR and RT-PCR are included, were MIQE guidelines followed? Was a reference standard (positive or negative controls) included in the study to validate the experiment?

Discussion
17. Are the primary conclusions and any secondary endpoints and their implications clearly stated?
18. Are the limitations of the current study or alternative interpretations of the findings clearly stated?

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*Manuscript preparation*
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