



### TABLE OF CONTENTS

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●	<b>Description</b>	<b>p.1</b>
●	<b>Audience</b>	<b>p.2</b>
●	<b>Impact Factor</b>	<b>p.2</b>
●	<b>Abstracting and Indexing</b>	<b>p.2</b>
●	<b>Editorial Board</b>	<b>p.2</b>
●	<b>Guide for Authors</b>	<b>p.6</b>



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### DESCRIPTION

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*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.

Reports describing experiments conducted with natural product mixtures, plant or animal extracts will not be considered for publication unless the structures and concentrations of all component substances are known, and the agents can be easily obtained by others wishing to replicate the study.

The chemical structure of all novel compounds tested must be included in the submitted manuscript or be readily accessible in the published literature. References to structures in the patent literature must unambiguously identify a single molecular structure. All compounds, reagents, instrumentation and equipment employed in a study must be available from identified commercial suppliers, bio/pharmaceutical companies or from individuals holding legal rights to their use. Submissions will not be considered for publication if the chemical structures of tested compounds are not revealed, generally known, or accessible in the literature.

**Original research submissions must contain:** A rationale for the selection of the compound/drug for study as well as for the concentrations/doses employed. Quantities used for concentration- and dose-response experiments should vary logarithmically, e.g., 1, 3, 10, 30 mg/kg, 0.1, 1.0, 10, 100 nanomolar, etc. Justification must be provided for studying only a single concentration or dose of a compound, especially as it relates to reference standards and antagonists/modulators of receptors, enzymes and signaling pathways. Justification must also be provided for the selection of the statistical tests employed as they relate to the experimental design. It is expected that all findings have been subjected to rigorous quantitative analyses, with the calculation and reporting of  $IC_{50}$ ,  $K_i$ ,  $EC_{50}$ , etc., values. These must be derived from a minimum of three (3) separate and distinct experiments, with the replicates within any single experiment being averaged to obtain a single value for that experimental series. Manuscripts that fail to meet these criteria will be subject to rejection without peer-review.

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## **AUDIENCE**

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Pharmacologists, Biochemists, Toxicologists, Neuroscientists, Molecular and Cellular Biologists.

## **IMPACT FACTOR**

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### INTRODUCTION

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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.

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#### *Types of papers*

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

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Provided below is detailed information on the scientific criteria and manuscript formatting required for an article to be considered for publication in *Biochemical Pharmacology*. The online submission process includes the Scientific Submission Checklist (Table 1) on the Additional Information Screen at <https://ees.elsevier.com/bcp>. Failure to accurately complete the Scientific Submission Checklist questions, automatically disqualifies the work for consideration. See Mullane et al., *Guidelines for Manuscript Submission in the Peer-Reviewed Pharmacological Literature (Biochem. Pharmacol. 97:225-235, 2015; <http://www.sciencedirect.com/science/article/pii/S0006295215003585>)* for a detailed discussion of the issues addressed in the Scientific Submission Checklist.

#### **Table 1. Scientific Submission Checklist**

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

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1. As *Biochemical Pharmacology* does NOT publish supplemental data with the exception of audio or video files, are all necessary data included in the body of the manuscript?

2. Are all tables and figures numbered and appropriately titled with descriptive legends that permit stand-alone interpretation? Are all data shown in the tables and figures also described in the Results section, discussed in the Discussion section and stated in the Conclusions?

#### **Introduction Section**

3. Is there a clear statement with background describing the hypothesis being tested by this study? Are the primary endpoints clearly stated?

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### **Results Section**

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18. Are the limitations of the current study or alternative interpretations of the findings clearly stated?

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- Gastrointestinal Pharmacology
- Inflammation and Immunopharmacology
- Metabolic Disorders and Endocrinology
- Neuropharmacology
- Pharmacokinetics and Drug Metabolism
- Pulmonary, Renal and Hepatic Pharmacology
- Toxicology

## PREPARATION

### Manuscript preparation

#### Language

Neither the Editorial Board nor the reviewers will provide detailed advice for improving the grammar and clarity of a manuscript, regardless of the scientific merit of the work. Authors are responsible for ensuring the article is written in clear English. Either American or British usage is accepted, but not a combination of the two. The use of spell-check and grammar-check offered in the word processing software is highly recommended. Manuscripts lacking linguistic clarity or that are not prepared according to the style guidelines outlined below will not be considered for publication. Authors can have their manuscript language-edited. See [English Editing Services](#) under Useful Links below.

#### Article Layout

Reports must be written in English with the pages numbered sequentially. The text must be double-spaced in single-column format with 1" or 25 mm margins. Size 12 (point) Times Roman or Arial font is preferred. The article must be divided into clearly defined and numbered sections. The required sections are 1. Introduction, 2. Materials and Methods, 3. Results, 4. Discussion, and References. See Mullane et al., *Guidelines for Manuscript Submission in the Peer-Reviewed Pharmacological Literature* (*Biochem. Pharmacol.*97:225-235, 2015; <http://www.sciencedirect.com/science/article/pii/S0006295215003585>) for a detailed discussion of the topics that must be covered in each section. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ), 1.2, etc. The abstract is not included in section numbering. This numbering should be used for internal cross-referencing in the text. Subsections may be assigned a brief heading that appears alone on a separate line.

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