

# PREPARING A RESEARCH ARTICLE

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## Credentials

### **Editorial Board Membership**

- Journal of Neuroscience Research
- Neuropharmacology
- Brain Research
- Brain Research Reviews
- Journal of Neuroscience
- Life Sciences
- The Receptors
- Molecular Brain Research
- CNS Drug Reviews
- Current Opinion in Pharmacology
- Biological and Pharmaceutical Bulletin
- Faculty of 1000 Biology

### **Editorships**

- **Journal of Pharmacology and Experimental Therapeutics**  
Field Editor for Neuropharmacology (1984-1998)  
Editor in Chief (1998-2003)
- **Biochemical Pharmacology**  
Editor in Chief (2003-Present)
- **Pharmacology & Therapeutics**  
Executive Editor in Chief (2003-Present)
- **Current Protocols in Pharmacology**  
Co-Editor (1998-Present)
- **Advances in Pharmacology**  
Series Editor (2009-Present)
- **Author, Editor or Co-Editor for 30 books and monographs**

# Manuscript Preparation

## STEP #1 Select Theme

- Ensures Focus
- Provides Message
- Identifies Audience

## STEP #2

### Prepare Tables and Figures

- All Should Support Message
- Avoid Repetition of Displays
- Assess Strength of Data and Identify Gaps

## STEP #3

### Know Your Audience Journal Selection

<i>Biochemical Pharmacology</i>	<i>Journal of Pharmaceutical Sciences</i>	<i>Journal of Medicinal Chemistry</i>	<i>Journal of Ethnopharmacology</i>
(IF=5.009)	(IF=2.360)	(IF=5.447)	(IF=2.998)
Interactions of drugs and toxins with biological systems, with particular emphasis on molecular mechanisms of action	Basic pharmaceutical sciences, such as chemical processing and chemical stability of drugs, pharmacokinetics, biopharmaceutics, dosage form design, targeted drug delivery	Relationship between molecular structure and biological activity	Biological effects of plants, fungi, animals, microorganisms and minerals

## STEP #4

### Prepare Text

- Introduction
  - Focus on Theme
  - Clearly Stated Hypothesis
  - Background Literature for Rationale
  - Close with Primary Message
- Experimental Procedures
  - Detail New Methods
  - Describe Statistical Tests
  - Source of Materials
  - Authorizations

## STEP #4

### Prepare Text

(continued)

- Results
  - Concise and Focused Description of Data
  - No Interpretation of Findings
- Discussion
  - Brief Literature Review
  - Critical Discussion of Results
  - Alternative Interpretations
  - Limitations of Study
  - Summary Statement and Message



## STEP #5

### Prepare Abstract

- Draw from Introduction and Discussion
- End with Primary Message

## STEP #6

### Compose Title

- Brief and Declarative
- Variation on the Message

## General Considerations

- Title and Abstract Most Important for Attracting Attention
- Clarity to Simplify Understanding
- Concision to Encourage Readership
- Focus to Avoid Confusion
- Single Message to Ensure Lasting Impression

## Useful Sites

- [www.ethics.Elsevier.com](http://www.ethics.Elsevier.com) Describes scientific misconduct and offers resources such as COPE and CrossCheck
- <http://webshop.elsevier.com> Provides links to translation services, English language editing, illustration assistance, etc.
- [www.ease.org.uk/publications/author-guidelines](http://www.ease.org.uk/publications/author-guidelines) Offers manuscript preparation guidelines in 19 languages

# **Causes for Manuscript Rejection**

## **Five Leading Causes for Manuscript Rejection**

1. Poor Experimental Design
2. Lack of Novelty
3. Questions about Reproducibility
4. Lack of Clarity
5. Questionable Data Interpretation

## Poor Experimental Design

- Not clearly described
- Inappropriate or outdated methodologies
- Lack of proper controls
- Limited number of observations per group, or limited number of groups (e.g., multiple cell lines)

## Lack of Novelty

- Repeating published work with compound analogs
- Simply confirming previous work
- No new hypothesis tested
- Originality of narrative (plagiarism)



## Questions about Reproducibility

- Use of reagents or compounds that are not commercially available
- Source and purity of natural products
- Use of customized equipment or supplies

## Lack of Clarity

- English language
- Figures and tables
- Must focus on results
- Provide concise description and interpretation of work

## Questionable Data Interpretation

- Uncritical assessment of results
- Excessive speculation
- No indication of clinical relevance

## Recommendations

- Have Grammar and Syntax Carefully Examined by Someone Fluent in English
- Have Manuscript Pre-reviewed for Scientific Content and Clarity by Colleagues to Identify Weaknesses
- Perform Additional Experiments if Necessary to Strengthen the Report and Conclusions
- Be Certain All Authors Were Actively Engaged in the Work and Have Read and Approved the Entire Text
- Be Sure that Sources of All Materials and Supplies are Clearly Listed

# Recommendations

(continued)

- Ensure Authorizations for the Use of Animals and Human Tissues and Subjects are Indicated in the Report
- Make Certain that Appropriate Statistical Tests were Employed. Consult a Statistician if Necessary
- E-mail a Note and the Abstract to the Target Journal Editor Asking if the Topic is Appropriate for Consideration (Optional)