**Instruction for Authors**

1. **Aims and Scope**
   *Archives of Pharmacal Research* is an interdisciplinary journal devoted to the publication of original research papers and reviews in the fields of drug discovery, drug development, and drug actions with a view of providing fundamental and novel information on drugs and drug candidates.

   For research on natural products, the following provisions apply.
   1) Provide appropriate information on origin.
   2) It should be noted that substances from natural products do not have endotoxin.
   3) Studies evaluating pharmacological actions of only the extracts will not be considered for publication. However, the articles reporting the pharmacological effects of the active ingredients in the extracts will be considered. In addition, clinical trial articles of natural products will be also considered.

2. **Types of Papers**
   *Archives of Pharmacal Research* considers manuscripts for publication in the following types of papers:

   - **Original Research Articles.** These are full-length descriptions of research that describe original and important pieces of work in detail from the fields covered by the journal. Maximum length of manuscripts should not exceed 5,000 words excluding figures and tables.

   - **Review Articles.** Review articles on topics of particular importance and relevance to drug discovery, drug development, and drug actions are welcome. Reviews may be unsolicited, or may be commissioned by the Editor. At least 3 figures or tables (in total) should be included, and most reviews should be less than 5,000 words. The review articles will undergo full peer review process.

   - **Report on Investigational Drugs.** The report should describe recent trends in new drug development among pharmaceutical and bio-venture companies, research institutes and universities. A focused report on one particular drug is recommended. The report should contain a brief background, a description of drug candidate (e.g., effects and relevant experimental data) and its prospective view. The total length should be about 1,000 words excluding references.

3. **Manuscript Submission**
   All submissions should be made online at the *Archives of Pharmacal Research* Editorial Manager site (www.editorialmanager.com/arpr) by the corresponding author.

   1) **English Language Editing:** To refine English used in the manuscripts prior to submission, non-English speaking authors are required to use a professional language-editing service.

   2) **Publication Fees:** Upon the acceptance of the manuscript after the review process, the *Archives of Pharmacal Research* will charge a publication fee of US $20 per printed page and a submission fee of US $100.

   3) **Changes in Authorship:** Authors are expected to carefully consider the list and order of authors before manuscript submission and the definitive list of authors should be submitted at the time of original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such changes, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed.

4) **Submission Checklist:**
   - Letter of submission (cover letter)
   - Title page: A short running title, and the number of words in the text from Abstract to Discussion.
   - Manuscript format: 12-point Times New Roman font, double-spaced & one column text.
   - Section order: Abstract, Introduction, Materials and Methods, Results, Discussion, Conflict of Interest, Acknowledgements, References, Tables, Figure Legends, and Figures.
   - Reference Format.
   - High-resolution digital images.
4. Manuscript Format
Manuscripts should be in English, typewritten using Times New Roman font (12-point size) and double-spaced on an A-4 size paper with at least 2.5 cm margins. Original articles should contain the following sections in the orders listed. Each section should begin on a new page and all pages should be numbered consecutively.

1) Cover Letter
All submissions must include a cover letter that includes:
♦ A brief outline of the work’s novelty and significance.
♦ A statement that the work has not been previously published and is not under consideration for publication anywhere else.
♦ A statement that the contents and publication of the manuscript have been approved by all co-authors and the responsible authorities at the institute(s) where the work has been carried out.

2) Title Page
This should be written on a separated page and it should include:
♦ A concise and informative title
♦ The name(s) of all author(s), the affiliation of authors, with symbols to link each name with that author’s institutional affiliation and an asterisk to denote the corresponding author
♦ The affiliation(s) and address(es) of the author(s)
♦ The e-mail address(es) and the telephone number(s) of the corresponding author(s)
♦ A running title of no more than 50 characters including spaces
♦ The number of words in the text from Abstract to Discussion

3) Abstract
The abstract should concisely present the hypothesis being tested, general methods, results, and conclusions. The abstract must be a single paragraph. Abstracts of more than 200 words will not be accepted. Four to six keywords must be supplied following the abstract.

4) Introduction
This section should start on a different page from the abstract. It should contain a concise, up-to-date description of the background to provide a general reader of the Journal with enough context to understand the research being presented and its significance, as well as providing a clear statement of the research question and any hypotheses being explored. Do not attempt to indicate the results obtained.

5) Materials and Methods
Procedures used in the work should be given in sufficient detail to permit the repetition by other researchers. Nevertheless, published procedures should be briefly summarized by mentioning the reference(s) and only described in detail if the procedures have been modified. The name of manufacturer should be specified without address (include only city and country).

All human and animal studies must have been approved by the author’s institutional review board and the name of the review board should be stated.

All clinical investigation must have been conducted according to Declaration of Helsinki principles. For the policies on the research and publication ethics not stated, or ‘Guidelines on good publication (http://www.publicationethics.org.uk/guidelines)’ can be applied.

6) Results
In this section, only observations should be described without discussion of their significance. Results are typically presented in figures or tables, with no duplication of information in the text.

7) Discussion
Discussion should be provided separately from the Results. The use of a combined “Results and Discussion” section is discouraged. Whereas speculative discussion is allowed, it must be identified as such and be based on the data presented.

Conclusions drawn from the results presented are included in this section. The Discussion must be as concise as possible and should not exceed 1,500 words.
8) Conflict of Interest
All authors must disclose any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three years of beginning to affect their work. Manuscripts that do not include a conflict of interest statement will be returned to the authors for amendment before any editorial consideration.
Potential sources of conflict of interest include employment, consultancies, honoraria, stock ownership, stock options, expert testimony, grants received and pending, patents received and pending, royalties, and in-kind contributions.
Research funding must be listed in the acknowledgements section and must include the funder and grant number.

9) Acknowledgements
The Acknowledgment section should include credits [last name and initial(s)] for technical assistance, financial support, and other appropriate recognition.

10) References
Citation
Cite references in the text by name and year in parentheses, and sort them by year. Examples are as follows.

♦ Negotiation research spans many disciplines (Thompson 1990).
♦ This result was later contradicted by Becker and Seligman (1996).
♦ This effect has been widely studied (Abbott 1991; Barakat et al. 1995; Kelso and Smith 1998; Medvec et al. 1999).

Reference list
The list of references should only include works that are cited in the text and that have been published or accepted for publication. Personal communications and unpublished works should only be mentioned in the text. Do not use footnotes or endnotes as a substitute for a reference list.
Reference list entries should be alphabetized by the last names of the first author of each work. Also, the names of all authors should be provided.

• Journal article

• Article by DOI

• Book

• Book chapter

• Online document

• Dissertation
Trent JW (1975) Experimental acute renal failure. Dissertation, University of California

Always use the standard abbreviation of a journal’s name according to the ISSN List of Title Word Abbreviations, see http://www.issn.org/services/online-services/access-to-the-itwa/. If you are unsure, please use the full journal title.

11) Tables
Each table must be double-spaced and provided on a separate page. Tables should be numbered consecutively with Arabic numerals in the order cited in the text. Supply a brief title for each table, but place explanatory matter in the footnotes (not in the heading). Do not use internal horizontal and vertical lines. Tables should be editable and not embedded images or excel files.
12) Figure Legends
Legends must provide sufficient explanation for the reader to understand the figure independent of the text.

13) Figures
Figures should be numbered consecutively in the order of first citation in the text, and each figure should be provided on a separate page.

a) Graphics: Figures should be submitted in different file formats, including TIFF, EPS, JPEG, GIF, high-resolution PDF, and power point format. To ensure the highest print quality, you are required to submit high-resolution images. Electronic images must be prepared according to the following minimum resolutions: Black and white line art 1200 dpi, grayscale art 600 dpi, color art 300 dpi.

b) Colors: All figures will be published in color for online version and in black and white for printed version. Color photographs will be printed at the Editors’ discretion, on the understanding that the authors will bear the cost.

c) Layout: Figures should be submitted in the actual size at which they should appear in the Journal. They may be printed in either single column (80 mm width) or double column (165 mm width) format. The single column format is preferred. The size of text in figures should be 8-10 points, except for single letter markers which may be 12 points. The use of sans serif font such as Helvetica is preferred. Numbers, letters, and symbols used in multi-paneled figures must be consistent. Complex textures and shading to achieve a three dimensional effect should be avoided. To show a pattern, a simple cross-hatch design should be used. Lines should be no thinner than 0.5 point. For a line graph, use standard symbols in the following order of preference: ○, ●, □, ■, D, ▲; x and + should be avoided.

d) Contents: Abbreviations such as Me for CH3, Et for C2H5, and Ph (but not j) for C6H5 are acceptable. Make liberal use of “R and X groups” in equations, schemes, and structure blocks to avoid the repetition of similar structures. Do not repeat a structure; the number alone of an earlier structure can be used if a compound occurs several times. Schemes are numbered with Arabic numerals. Within schemes, structures should be numbered with boldface Arabic numerals, consecutively from left to right, top to bottom, regardless of the order in which the compounds are discussed in the text. Schemes should be footnoted in the manner described below for Tables. It is not necessary to give reagents and conditions in complete detail, since this detail is contained in the Materials and Methods Section. Where needed, numbers such as NMR chemical shifts may be included directly on structural formulas.

14) Chemical Structures. Drawing preferences (preset in the ACS Stylesheet in ChemDraw) are as follows:

a) As drawing settings select:
   - chain angle 120°
   - bond spacing 18% of width
   - fixed length 14.4 pt (0.508 cm, 0.2 in.)
   - bold width 2.0 pt (0.071 cm, 0.0278 in.)
   - line width 0.6 pt (0.021 cm, 0.0084 in.)
   - margin width 1.6 pt (0.056 cm, 0.0222 in.)
   - hash spacing 2.5 pt (0.088 cm, 0.0347 in.)

b) As text settings select:
   - font Arial/Helvetica
   - size 10 pt

c) Under the preferences choose:
   - units points
   - tolerances 5 pixels

d) Under page setup choose:
   - paper US Letter
   - scale 100%

e) Using the ChemDraw ruler or appropriate margin settings, create structure blocks, schemes, and equations having maximum widths of 11.3 cm (one column format) or 23.6 cm (two-column format). Note: if the foregoing preferences are selected as cm values, the ChemDraw ruler is calibrated in cm. ChemDraw graphics will be reduced to 75% during production.
f) Embolden compound numbers, but not atom labels or captions.

g) Authors are urged to use only a single configurational descriptor (heavy line or dashed line, but not both) when defining a stereocenter in a chemical structure. Atoms should be kept outside of rings wherever possible. Rather than rectangular solid and dashed lines, authors should use solid and dashed wedges to indicate configurations, as shown below. Dots at ring junctions intended to represent hydrogen atoms should not be used. Structures should be drawn in a neat manner ready for direct reproduction, and should not be cluttered or overlapping. Any arrows and numbering used for atoms in figures should not come into contact with bonds or ring systems.

See an example of a prepared structure using ChemDraw with the specified preferences below. In molecules containing a chiral biphenyl axis, it is recommended that one of the aromatic rings be drawn in the plane of the paper and the second one be rotated out of the plane of the paper, to reflect the $P$ or $M$ conformation of the biphenyl bond (see below for example).

5. Review of Manuscripts
All manuscripts are first evaluated for their scientific content and significance by the editors and will be subjected to at least two independent reviewers. However, editors reserve the right to reject a manuscript without conducting an in-depth review if they feel that the manuscript is out of the scope or does not meet the minimal acceptance criteria for publication. The manuscript with incorrect format may be declined without further review.

6. Proofs
Authors are responsible for the factual accuracy of their papers. One set of proofs will be supplied for the author to check for typesetting accuracy, to be returned to the publisher within 3 days of receipt. No changes to the original manuscript will be allowed at this stage. In addition, the editors reserve the right to make any necessary correction to a paper prior to publication.

7. Transfer of Copyright
All authors must sign the ‘Transfer of Copyright’ agreement before the article can be published. This transfer agreement enables the Pharmaceutical Society of Korea to protect the copyrighted material for the authors, but does not relinquish the author’s proprietary rights.
Publishing ethics of APR

Researchers should conduct their research from research proposal to publication in line with best practices and codes of conduct of relevant professional bodies and/or national and international regulatory bodies.

1. Ethical responsibilities of authors

This journal is committed to upholding the integrity of the scientific record. As a member of the Committee on Publication Ethics (COPE) the journal will follow the COPE guidelines on how to deal with potential acts of misconduct.

Authors should refrain from misrepresenting research results which could damage the trust in the journal, the professionalism of scientific authorship, and ultimately the entire scientific endeavor. Maintaining integrity of the research and its presentation can be achieved by following the rules of good scientific practice, which include:

- The manuscript has not been submitted to more than one journal for simultaneous consideration.
- The manuscript has not been published previously (partly or in full), unless the new work concerns an expansion of previous work (please provide transparency on the re-use of material to avoid the hint of text-recycling (‘self-plagiarism’)).
- A single study is not split up into several parts to increase the quantity of submissions and submitted to various journals or to one journal over time (e.g. ‘salami-publishing’).
- No data have been fabricated or manipulated (including images) to support your conclusions
- No data, text, or theories by others are presented as if they were the author’s own (‘plagiarism’). Proper acknowledgements to other works must be given (this includes material that is closely copied (near verbatim), summarized and/or paraphrased), quotation marks are used for verbatim copying of material, and permissions are secured for material that is copyrighted.
- Important note: the journal may use software to screen for plagiarism.
- Consent to submit has been received explicitly from all co-authors, as well as from the responsible authorities - tacitly or explicitly - at the institute/organization where the work has been carried out, before the work is submitted.
• Authors whose names appear on the submission have contributed sufficiently to the scientific work and therefore share collective responsibility and accountability for the results.

• Authors are strongly advised to ensure the correct author group, corresponding author, and order of authors at submission. Changes of authorship or in the order of authors are not accepted after acceptance of a manuscript.

• Adding and/or deleting authors at revision stage may be justifiably warranted. A letter must accompany the revised manuscript to explain the role of the added and/or deleted author(s). Further documentation may be required to support your request.

• Requests for addition or removal of authors as a result of authorship disputes after acceptance are honored after formal notification by the institute or independent body and/or when there is agreement between all authors.

• Upon request authors should be prepared to send relevant documentation or data in order to verify the validity of the results. This could be in the form of raw data, samples, records, etc. Sensitive information in the form of confidential or proprietary data is excluded.

If there is a suspicion of misconduct, the journal will carry out an investigation following the COPE guidelines. If, after investigation, the allegation seems to raise valid concerns, the accused author will be contacted and given an opportunity to address the issue. If misconduct has been established beyond reasonable doubt, this may result in the Editor-in-Chief’s implementation of the following measures, including, but not limited to:

• If the article is still under consideration, it may be rejected and returned to the author.

• If the article has already been published online, depending on the nature and severity of the infraction, either an erratum will be placed with the article or in severe cases retraction of the article will occur. The reason must be given in the published erratum or retraction note. Please note that retraction means that the paper is maintained on the platform, watermarked “retracted” and explanation for the retraction is provided in a note linked to the watermarked article.

• The author’s institution may be informed.

2. Compliance with ethical standards

To ensure objectivity and transparency in research and to ensure that accepted
principles of ethical and professional conduct have been followed, authors should include information regarding sources of funding, potential conflicts of interest (financial or non-financial), informed consent if the research involved human participants, and a statement on welfare of animals if the research involved animals.

Authors should include the potential conflicts of interest and sources of funding (if applicable) in a separate section entitled “Conflict of interest” or “Acknowledgements”, respectively, before the References when submitting a paper:

The corresponding author should be prepared to collect documentation of compliance with ethical standards and send if requested during peer review or after publication.

The Editors reserve the right to reject manuscripts that do not comply with the above-mentioned guidelines. The author will be held responsible for false statements or failure to fulfill the above-mentioned guidelines.

2-1. Disclosure of potential conflicts of interest

Authors must disclose all relationships or interests that could have direct or potential influence or impart bias on the work. Although an author may not feel there is any conflict, disclosure of relationships and interests provides a more complete and transparent process, leading to an accurate and objective assessment of the work.

Awareness of a real or perceived conflicts of interest is a perspective to which the readers are entitled. This is not meant to imply that a financial relationship with an organization that sponsored the research or compensation received for consultancy work is inappropriate.

Examples of potential conflicts of interests that are directly or indirectly related to the research may include but are not limited to the following:

- Research grants from funding agencies (please give the research funder and the grant number)
- Honoraria for speaking at symposia
- Financial support for attending symposia
- Financial support for educational programs
- Employment or consultation
- Support from a project sponsor
- Position on advisory board or board of directors or other type of management relationships
- Multiple affiliations
- Financial relationships, for example equity ownership or investment interest
• Intellectual property rights (e.g. patents, copyrights and royalties from such rights)
• Holdings of spouse and/or children that may have financial interest in the work

In addition, interests that go beyond financial interests and compensation (non-financial interests) that may be important to readers should be disclosed. These may include but are not limited to personal relationships or competing interests directly or indirectly tied to this research, or professional interests or personal beliefs that may influence your research.

The corresponding author collects the conflict of interest disclosure forms from all authors. In author collaborations where formal agreements for representation allow it, it is sufficient for the corresponding author to sign the disclosure form on behalf of all authors.

Examples of forms can be found here.

• COI-all authors form
• COI-corresponding author form
• COI-ICMJE modified form
• ICMJE form

Examples of disclosures

The corresponding author will include a summary statement in the text of the manuscript in a separate section before the reference list, that reflects what is recorded in the potential conflict of interest disclosure form(s).

<table>
<thead>
<tr>
<th>Topic</th>
<th>Examples of disclosures</th>
</tr>
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<tbody>
<tr>
<td>Funding</td>
<td>Acknowledgements: This study was funded by X (grant number X).</td>
</tr>
<tr>
<td>Conflict of Interest</td>
<td>Conflict of Interest: Author A has received research grants from Company A. Author B has received a speaker honorarium from Company X and owns stock in Company Y. Author C is a member of committee Z.</td>
</tr>
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<td>If no conflict exists, the authors should state</td>
<td>Conflict of Interest: The authors declare that they have no conflict of interest.</td>
</tr>
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</table>

2.2. Research involving human participants and/or animals

1) Statement of Human Rights
When reporting studies that involve human participants, authors should include a statement that the studies have been approved by the appropriate institutional and/or national research ethics committee and have been performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

If doubt exists whether the research was conducted in accordance with the 1964 Helsinki Declaration or comparable standards, the authors must explain the reasons for their approach, and demonstrate that the independent ethics committee or institutional review board explicitly approved the doubtful aspects of the study.

The following statements should be included in the text of the Materials and methods section: “All procedures were approved by the institutional research ethics committee, and performed in accordance with the recommendations of the Declaration of Helsinki on biomedical research involving human subjects.”

2) Statement on the Welfare of Animals

The welfare of animals used for research must be respected. When reporting experiments on animals, authors should indicate whether the international, national, and/or institutional guidelines for the care and use of animals have been followed, and that the studies have been approved by a research ethics committee at the institution or practice at which the studies were conducted (where such a committee exists).

For studies with animals, the following statement should be included in the text of the Materials and methods section: “All procedures were approved by the institutional ethics committee for the care and use of animals.”

3) Informed consent

All individuals have individual rights that are not to be infringed. Individual participants in studies have, for example, the right to decide what happens to the (identifiable) personal data gathered, to what they have said during a study or an interview, as well as to any photograph that was taken.

Hence it is important that all participants gave their informed consent in writing prior to inclusion in the study. Identifying details (names, dates of birth, identity numbers and other information) of the participants that were studied should not be published in written descriptions, photographs, and genetic profiles unless the information is essential for scientific purposes and the participant (or parent or guardian if the participant is incapable) gave written informed consent for publication. Complete anonymity is difficult to achieve in some cases, and informed consent should be obtained if there is any doubt.
For example, masking the eye region in photographs of participants is inadequate protection of anonymity. If identifying characteristics are altered to protect anonymity, such as in genetic profiles, authors should provide assurance that alterations do not distort scientific meaning.

The following statement should be included: “Written informed consent was obtained from all subjects.”

3. Appeals and complaints

The below procedure applies to appeals to editorial decisions, complaints about failure of processes such as long delays in handling papers and complaints about publication ethics. The complaint should in first instance be handled by the Editor-in-Chief(s) responsible for the journal and/or the Editor who handled the paper.

**Complaint about scientific content, e.g. an appeal against rejection**
The Editor-in-Chief or Handling Editor considers the authors’ argument, the reviewer reports and decides whether
- The decision to reject should stand;
- Another independent opinion is required
- The appeal should be considered.
The complainant is informed of the decision with an explanation if appropriate. Decisions on appeals are final and new submissions take priority over appeals.

**Complaint about processes, e.g. time taken to review**
The Editor-in-Chief together with the Handling Editor (where appropriate) and/or in-house contact (where appropriate) will investigate the matter. The complainant will be given appropriate feedback. Feedback is provided to relevant stakeholders to improve processes and procedures.

**Complaint about publication ethics, e.g., researcher's author's, or reviewer's conduct**
The Editor-in-Chief or Handling Editor follows guidelines published by the Committee on Publication Ethics of Springer-Nature. The Editor-in-Chief or Handling Editor may ask the publisher via their in-house contact for advice on difficult or complicated cases. The Editor-in-Chief or Handling Editor decides on a course of action and provides feedback to the complainant. If the complainant remains dissatisfied with the handling of their complaint, he or she can submit the complaint to the Committee on Publication Ethics of Springer-Nature.