

THE AAPS JOURNAL --INSTRUCTIONS FOR AUTHORS

The following instructions pertain to submissions to The AAPS Journal.

INTRODUCTION

The AAPS Journal, an official journal of the American Association of Pharmaceutical Scientists (AAPS), publishes novel and significant findings in the various areas of pharmaceutical sciences impacting human and veterinary therapeutics, including:

- Drug Design and Discovery
- Pharmaceutical Biotechnology
- Biopharmaceutics, Formulation, and Drug Delivery
- Metabolism and Transport
- Pharmacokinetics, Pharmacodynamics, and Pharmacometrics
- Translational Research
- Clinical Evaluations and Therapeutic Outcomes
- Regulatory Science

We invite submissions under the following article types:

- Original Research Articles
- Reviews and Mini-reviews
- White Papers, Commentaries, and Editorials
- Meeting Reports
- Brief/Technical Reports and Rapid Communications
- Regulatory Notes
- Tutorials
- Protocols in Pharmaceutical Sciences

In addition, *The AAPS Journal* publishes themes, organized by guest editors, which are focused on particular areas of current interest to our field.

Editor-in-Chief Ho-Leung Fung, Ph.D., oversees an international editorial board of leading researchers in the pharmaceutical sciences. Fung is UB Distinguished Professor Emeritus of Pharmaceutical Sciences at the University at Buffalo, The State University of New York.

TYPES OF MANUSCRIPTS

The AAPS Journal publishes the following article types. For examples of published articles, please visit <http://link.springer.com/journal/volumesAndIssues/12248>.

ORIGINAL RESEARCH PAPERS contain innovative, hypothesis-driven research that is supported by sound experimental design, methodology, and data interpretation.

Recommended word count: 5,000; Maximum combined tables and figures: 10; Maximum references: 100

REVIEWS, usually by invitation and organized into themed issues, report on recent advances in pharmaceutical research.

Recommended word count: 5,000; Maximum combined tables and figures: 10; Maximum references: 150

MINI-REVIEWS discuss a more narrowly focused topic of recent research. Unsolicited reviews are considered only if they are authored by investigators who have demonstrated expertise in the relevant areas.

Recommended word count: 2,500; Maximum combined tables and figures: 6; Maximum references: 50

White Papers are authoritative articles that have been coauthored by a wide panel of experts who are associated with an AAPS-affiliated group, such as a programming committee for a workshop/symposium, a focus group, a section, or an ad hoc group formed to examine the current state of a particular issue in pharmaceutical science. A White Paper should include evaluation of state-of-the-art subject matter and make consensus policy recommendations for future consideration to the relevant scientific community. The authorship should ideally be composed of the essential stake holders pertaining to the issue at hand, including representatives from academia, industry, and government. White Papers adhere to the "[AAPS Guideline for Review of Opinions and Summary Reports](#)." For more information on this procedure, contact AAPSJ@aaps.org.

Recommended word count: 5,000; Maximum combined tables and figures: 10; Maximum references: 150

EDITORIALS OR COMMENTARIES are usually published by invitation only. These articles contain topical issues of public and scientific interest.

Recommended word count: 5,000; Maximum combined tables and figures: 10; Maximum references: 100

MEETING REPORTS on AAPS or AAPS-affiliated meetings provide readers with summaries of such meetings, including consensus views. When a meeting report purports to be a Consensus Report or White Paper, authors should review and adhere to the "[AAPS Guideline for Review of Opinions and Summary Reports](#)." For more information on this procedure, contact AAPSJ@aaps.org.

Recommended word count: 5,000; Maximum combined tables and figures: 10; Maximum references: 150

BRIEF TECHNICAL NOTES, normally more limited in scope than Original Research Papers, must be of high quality, general interest, and sufficient importance to warrant publication.

Recommended word count: 1,200; Maximum combined tables and figures: 6; Maximum references: 50

RAPID COMMUNICATIONS provide a venue for fast-breaking research updates. The justification for rapid communication should be stated in the cover letter during submission.

Recommended word count: 1,200; Maximum combined tables and figures: 6; Maximum references: 20

REGULATORY NOTES provide a summary of regulatory decisions made and the scientific rationale regarding a drug product or a class of drug products.

Recommended word count: 1,200; Maximum combined tables and figures: 6; Maximum references: 50

TUTORIALS are instructional articles that provide extensive treatments of a specific research topic or concept, including methods of data analysis, that are not commonly found in textbooks or other articles. These articles may provide examples or case studies to guide the reader to apply the concepts to their own work. Examples are [Pattern Recognition in Pharmacokinetic Data Analysis](#) and [Pattern Recognition in Pharmacodynamic Data Analysis](#).

Maximum word count: 5,000 words; Maximum combined tables and figures: 10; Maximum references: 150; Should include abstract; May include supplementary materials.

PROTOCOLS IN PHARMACEUTICAL SCIENCES describe well-tested and validated experimental or computational procedures that may be adopted in relevant pharmaceutical research studies. An example is [Quantifying Trace Amounts of Aggregates in Biopharmaceuticals Using Analytical Ultracentrifugation Sedimentation Velocity: Bayesian Analyses and F Statistics](#).

Maximum word count: 2,500 words; Maximum combined tables and figures: 5; Maximum references: 100; Should include abstract; May include supplementary materials.

All articles published in the journal will follow the Springer Online First production workflow, enabling publication on the SpringerLink website after receipt of author corrections to page proofs.

MANUSCRIPT SUBMISSION

AAPS uses Editorial Manager as its peer review tracking system. Manuscripts must be submitted online by the Corresponding Author at <http://www.editorialmanager.com/aapsj/>. You may be required to register as a new user with Editorial Manager upon your first visit. Login and registration procedures can be found on the website. Editorial Manager allows authors to track the progress of manuscript review in real time. Detailed, step- by-step instructions for submitting manuscripts can be found on the website. All correspondence regarding your manuscript should go through Editorial Manager. Special Features, Appendices, and Supplementary Material can be accommodated and may contain highly interactive features or large databases. All authors are encouraged to take full advantage of the Web-only capabilities of online publishing, including 3D, video, and interactive graphics. If a desired technical feature is not covered in the Author's Instructions, please contact the AAPS Editorial Office (AAPSJ@aaps.org) for assistance. All special features must be created by the Author.

Authors who wish to publish electronic supplementary material to their article (Excel files, images, audio/video files) must submit the supplementary files/materials with their manuscript submission via Editorial Manager. These files may be submitted as one file or multiple files as desired by the authors. Accepted formats for these files include .doc, .docx, .xls, .xlsx, .jpeg, .pdf, and

for videos, mpeg-3 format. Note that supplementary files are not automatically shared with the reviewer. Please therefore note in a cover letter if these materials should be evaluated by reviewers only, or if the supplemental files should be included for review and be published with the article should the manuscript be accepted. If the supplemental files are intended for publication, callouts using supplemental 1, supplemental 2, etc. should be placed in the appropriate location within the text of the manuscript body.

HYPERLINKS

Authors may identify URLs for websites that provide the reader with additional information on the topic addressed in the manuscript. Although URLs are an important feature of electronic publishing, authors are encouraged to be selective in their choice of sites to include. Do not include URLs for webpages with newspaper or journal articles that will be removed or archived to another webpage. Links to pharmaceutical manufacturers or other sources of product information are acceptable; however, providing a URL to the reader should not be substituted for adequate discussion within the manuscript itself. Do not include links to sites that are not accessible without a password.

TERMS OF MANUSCRIPT CONSIDERATION

AAPS JOURNALS ETHICS POLICY

The AAPS Journal and AAPS PharmSciTech, in conjunction with Springer Nature, have developed an integrated ethics policy to guide decision-making across the journals. The document is based on the recommendations on publication ethics policies for medical journals published by the [World Association of Medical Editors](#) (WAME), subscribed to by more than 1,000 journals.

Authors are required to review and adhere to the [AAPS Journals Ethics Policy](#) in full prior to submitting manuscripts to The AAPS Journal. Excerpts from the Policy are outlined below.

FULL DISCLOSURE

During the manuscript submission process, all authors will be required to confirm that the manuscript has not been previously published in any language anywhere and that it is not under simultaneous consideration by another journal. The policy regarding compound disclosure centers on the data presented. If specific data relating to the study compound are reported, then the journal requires identification so that reviewers and readers can judge, based on general principles, whether the data are plausible and internally consistent, and to potentially allow future examination and/or validation of the results and conclusions reported. If however a library of compounds is used to generate correlations, such as in QSAR when the scope and diversity of the compounds are described, then it is possible that the specific chemical compositions of the compounds need not be identified, subject to the discretion of the reviewers and the editor.

USE OF ARTIFICIAL INTELLIGENCE (AI)

Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our [authorship criteria](#). Notably an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section

(and if a Methods section is not available, in a suitable alternative part) of the manuscript. The use of an LLM (or other AI-tool) for “AI assisted copy editing” purposes does not need to be declared. In this context, we define the term “AI assisted copy editing” as AI-assisted improvements to human-generated texts for readability and style, and to ensure that the texts are free of errors in grammar, spelling, punctuation and tone. These AI-assisted improvements may include wording and formatting changes to the texts, but do not include generative editorial work and autonomous content creation. In all cases, there must be human accountability for the final version of the text and agreement from the authors that the edits reflect their original work.

For information regarding Generative AI Images, please visit [Springer Nature's policy](#) page.

CONFLICTS OF INTEREST

Authors will be required to declare all conflicts of interest (or their absence) during the submission of a manuscript. This conflict declaration includes conflicts or potential conflicts of all listed authors. Declared conflicts will be published in the paper. In cases of doubt, the circumstance should be disclosed so that the editors may assess its significance.

Conflicts may be financial, academic, commercial, political or personal. Financial interests may include employment, research funding (received or pending), stock or share ownership, patents, payment for lectures or travel, consultancies, nonfinancial support, or any fiduciary interest in a company.

<http://www.wame.org/about/conflict-of-interest-in-peer-reviewed-medical>

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The Copyright Revision Act of 1976 (Public Law 94-533) requires that Authors transfer their copyrights to the American Association of Pharmaceutical Scientists in order to provide for the widest possible dissemination of professional and scientific literature. A signed Transfer of Copyright form must be submitted online with the manuscript. The Transfer of Copyright form for an accepted manuscript must be on file with the AAPS Editorial Office prior to production for publication. The corresponding authors must sign the form on behalf of all authors.

The Transfer of Copyright form can be found at: www.aaps.org/copyright.

ETHICS IN ANIMAL AND CLINICAL INVESTIGATIONS

HUMAN SUBJECTS AND CLINICAL TRIALS

The AAPS Journal requires author(s) at the time of manuscript submission to make a statement in the cover letter indicating documented review and approval from a formally constituted review board (Institutional Review Board or Ethics committee) for all studies involving people, medical records, and human tissues, per the uniform guidelines from the World Medical Association (<http://www.wma.net/en/30publications/10policies/index.html>).

Studies and research using human subjects, medical records, and human tissues (including educational research) must also state this compliance within the Methods Section.

The AAPS Journal also requires that controlled clinical trials must be registered in a publicly available database or the journal will not publish the results of these trials. Manuscripts submitted to the journal must include trial registration information in the cover letter. To register a clinical trial, authors should go to the [NIH registry](#) or the [International Standard Randomized Controlled Trials](#) database. Further information can be obtained from the [International Committee of Medical Journal Editors](#) (ICMJE).

ANIMAL USE AND ASSURANCES

The AAPS Journal requires author(s) at the time of manuscript submission to make a statement in the cover letter indicating that animal experiments are conducted in full compliance with local, national, ethical, and regulatory principles and local licensing regulations, per the spirit of [Association for Assessment and Accreditation of Laboratory Animal Care](#) (AAALAC) expectations for animal care and use/ethics. Investigations using experimental animals (including educational research) must also state this compliance within the Methods Section.

ORIGINALITY OF MANUSCRIPTS

Authors of manuscripts submitted to the American Association of Pharmaceutical Scientists are obliged to present accurate representation of the research performed along with an objective discussion of the significance of their findings. The author's submission should be original work that reflects research undertaken with integrity and honesty, and it must conform to the ethical practices outlined in the [AAPS Journals Ethics Policy](#). Authors should be willing to reply to any reasonable request from editors, reviewers, and scientists for materials, methods, or data necessary for verification of the conclusions reported in the paper.

USE OF COPYRIGHTED TABLES AND FIGURES

A copy of the granted permission to use copyrighted figures and tables must be included with the submitted manuscript.

PEER REVIEW

All submissions will be reviewed anonymously by at least two independent reviewers. Authors are encouraged to submit names and email addresses of expert reviewers, but selection remains a prerogative of the editors. Authors may include supplementary notes to facilitate the review process. If an accepted paper is cited that has not yet appeared in print and is required for evaluation of the submitted manuscript, authors should provide an electronic version for use by the reviewers. Authors are responsible for all statements in their work, including changes made by the copyeditor after a manuscript is accepted.

DATA POLICY

The journal encourages authors, where possible and applicable, to deposit data that support the findings of their research in a public repository. Authors and editors who do not have a preferred repository should consult Springer Nature's list of repositories and research data policy.

[List of Repositories](#)

[Research Data Policy](#)

General repositories - for all types of research data - such as figshare and Dryad may also be used.

Datasets that are assigned digital object identifiers (DOIs) by a data repository may be cited in the reference list. Data citations should include the minimum information recommended by DataCite: authors, title, publisher (repository name), identifier.

[DataCite](#)

Springer Nature provides a research data policy support service for authors and editors, which can be contacted at researchdata@springernature.com. This service provides advice on research data policy compliance and on finding research data repositories. It is independent of journal, book and conference proceedings editorial offices and does not advise on specific manuscripts.

[Helpdesk](#)

MANUSCRIPT ORGANIZATION

Several components of the manuscript must be submitted as individual files within Editorial Manager: cover letter, title page, manuscript body (including references list), individual figure files, and the Transfer of Copyright.

(For the items described below, an * indicates that the item is required for all manuscript types, unless otherwise specified)

Cover Letter

A Cover Letter is recommended, but not required. Please note, a cover letter is required for a Rapid Communication.

Authors who wish to submit names and email addresses of recommended reviewers for the peer review process may also indicate those in the Cover Letter.

***Title Page**

The title page must be submitted as a separate file, and should include the title of the article, author names with full first name (no degrees), each author's affiliation, and a suggested running head (of less than 50 characters, including spaces). The affiliation should comprise the department, institution (usually university or company), city, and state (or nation) and should be typed as a footnote to the author's name. For the corresponding author designated to correspond with the Editorial Office and review proofs, indicate his/her complete mailing address, office/cellular telephone number, fax number, and email address.

INSTITUTIONAL EMAIL ADDRESSES: (NOW MANDATORY)

All authors are now required to provide institutional email addresses for verification purposes. If your paper is accepted and you prefer not to have your institutional email address published, please indicate this in your COVER LETTER. We will respect your preference and withhold the address from publication.

ORCID NUMBERS (NOW MANDATORY)

All authors must provide their ORCID numbers for verification purposes. Please provide them on your TITLE PAGE.

Graphical Abstract

A graphic must be included with each manuscript for display in the table of contents (TOC) and the abstract. This graphic should capture the reader's attention and, in conjunction with the manuscript title, should give the reader a quick visual impression of the essence of the manuscript without providing specific results.

Abstract

Only Reviews, Mini Reviews, Original Research Articles, Rapid Communications, Meeting Reports, Tutorials, and Protocols in Pharmaceutical Sciences require an abstract. The abstract is limited to 250 words or less. For Research Articles, the abstract should include a brief (2 to 3 sentences) statement for each of the following sections: Introduction, Methods and Materials, Results and Discussion, and Conclusion written in paragraph form. All abstracts must be written in one paragraph, with no subheadings, equations, tables, reference citations, or graphics. Graphical abstracts will not be accepted.

***Keywords**

Provide a list of no more than 5 key words.

Introduction Required for Reviews, Mini Reviews, Original Research Articles, and Meeting Reports only.

***Main Text Body**

MANDATORY: You must include continuous line numbers in the manuscript body file.

For Original Research Articles, Brief Technical Notes, and Rapid Communications, organize the main text as follows: Introduction, Materials and Methods, Results, Discussion, and Conclusion. **Combining Results and Discussion is discouraged.** The use of un-numbered subheadings to divide the text is encouraged. Primary, Secondary, and Third level headings should be clearly defined.

See [Types of Manuscripts](#) for word counts, maximum table/figure counts, and maximum references.

Use abbreviations sparingly, and define them at the first insertion in the text. Define all abbreviations used in tables within the table footnotes. Use the metric system for all measurements. Express metric abbreviations in lowercase letters without periods (cm, mL, sec). Define all symbols used in equations and formulas. When symbols are used extensively, the authors may include a list of all symbols in a table.

Numbers should be reported to reflect the precision of the instrumentation utilized. Calculated

numbers, such as means and standard deviations, should be expressed to no more than one significant digit beyond the precision of the instrument. **Normally, numerical data reported to more than 3 significant figures should be justified.** The precision of the variability (e.g., standard deviation) should not exceed that of the reported mean value.

Conclusion

The conclusion should be a brief paragraph, containing 3 to 4 sentences, that summarizes the findings presented.

Acknowledgments

Include funding source(s) and other contributions. If the work has been funded by NIH, please provide name(s) of funding institute(s) and grant number(s). This information is required for automatic deposit into PUBMED Central by the Publisher.

References

References should conform to **Vancouver style** and be numbered consecutively in the order in which they are cited in the text. Cite in the text by the appropriate Arabic numeral enclosed in parentheses, e.g., (1), (2-5), etc.

See [Types of Manuscripts](#) for word counts, maximum table/figure counts, and maximum references.

References to unpublished peer-reviewed, personal communications, including conference abstracts, and papers in preparation or in review, cannot be listed, but can be notated parenthetically in the text.

Abbreviations for journal names should conform to those of Vancouver style. The style and punctuation of the references should conform to the following examples:

1. Journal article Smith JJ. The world of science. *Am J Sci.* 1999;36:234-5.
2. Journal article with DOI (and with page numbers) O Mahony S, Rose SL, Chilvers AJ, Ballinger JR, Solanki CK, Barber RW, et al. Finding an optimal method for imaging lymphatic vessels of the upper limb. *Eur J Nucl Med Mol Imaging.* 2004;31:555-63. doi:10.1007/s00259-003-1399-3.
3. Journal article by DOI (before issue publication with page numbers) O Mahony S, Rose SL, Chilvers AJ, Ballinger JR, Solanki CK, Barber RW, et al. Finding an optimal method for imaging lymphatic vessels of the upper limb. *Eur J Nucl Med Mol Imaging.* 2004. doi:10.1007/s00259-003-1399-3.
4. Article in electronic journal by DOI (no paginated version) Slifka MK, Whitton JL. Clinical implications of dysregulated cytokine production. *Dig J Mol Med.* 2000. doi:10.1007/s801090000086.
5. Journal article in a supplement Frumin AM, Nussbaum J, Esposito M. Functional asplenia: demonstration of splenic activity by bone marrow scan. *Blood* 1979;59 Supple 1:26-32.
6. Book chapter Wyllie AH, Kerr JFR, Currie AR. Cell death: the significance of apoptosis. In: Bourne GH, Danielli JF, Jeon KW, editors. *International review of cytology.* London: Academic;

1980. p. 251-306.

7. OnlineFirst chapter in a series (without a volume designation but with a DOI) Saito Y, Hyuga H. Rate equation approaches to amplification of enantiomeric excess and chiral symmetry breaking. *Top Curr Chem*. 2007. doi:10.1007/128_2006_108.

8. Book, authored Blenkinsopp A, Paxton P. *Symptoms in the pharmacy: a guide to the management of common illness*. 3rd ed. Oxford: Blackwell Science 1998.

9. Online document Doe J. Title of subordinate document. In: *The dictionary of substances and their effects*. Royal Society of Chemistry. 1999. <http://www.rsc.org/dose/title of subordinate document>. Accessed 15 Jan 1999.

10. Online database Healthwise Knowledgebase. *US Pharmacopeia*, Rockville. 1998. <http://www.healthwise.org>. Accessed 21 Sept 1998.

11. Supplementary material/private homepage Doe J. Title of supplementary material. 2000. <http://www.privatehomepage.com>. Accessed 22 Feb 2000.

12. University site Doe, J.: Title of preprint. <http://www.uni-heidelberg.de/mydata.html> (1999). Accessed 25 Dec 1999.

13. FTP site Doe, J.: Trivial HTTP, RFC2169. <ftp://ftp.isi.edu/in-notes/rfc2169.txt> (1999). Accessed 12 Nov 1999.

14. Organization site ISSN International Centre: The ISSN register. <http://www.issn.org> (2006). Accessed 20 Feb 2007.

For a full description of the Vancouver reference style, including numerous examples, please access http://www.nlm.nih.gov/bsd/uniform_requirements.html

Tables

Tables must be created in Microsoft Word table format. Tables should be numbered (with Roman numerals) and referred to by number in the text. Center the title above the table, and type explanatory footnotes (indicated by superscript lowercase letters) below the table. Data must be placed in separate cells of the table to prevent text and numbers from shifting when the table is converted for publication online. Empty cells may be inserted to create spacing. Tables should not duplicate information provided in the text. Instead, tables should be used to provide additional information that illustrates or expands on a specific point the author wishes to make. Each table should be self-explanatory.

Figures

The AAPS Journal offers authors the use of **color figures** in online published manuscripts free of charge. Figures (as well as photographs, drawings, diagrams, and charts) are to be numbered in one consecutive series of Arabic numerals in the order in which they are cited in the text. The captions for illustrations and figures should be separated from the text and collated in a separate section called Legend to Figures during submission. All electronic artwork must be submitted online via our online peer review tracking system, Editorial Manager. Figure files should be submitted in TIFF

or EPS format (1200 dpi for line and 300 dpi for half-tones and gray-scale art); however, JPG, GIF, and BMP files may also be submitted as long as the dpi specifications above are met. Use of a professional graphics program such as Adobe Photoshop to edit and/or save photographs and graphics is highly recommended.

See [Types of Manuscripts](#) for word counts, maximum table/figure counts, and maximum references.

Footnotes

Footnotes should be avoided. When their use is absolutely necessary, footnotes should be numbered consecutively using Arabic numerals and should be typed at the bottom of the page to which they refer. Place a line above the footnote, so that it is set off from the text. Use the appropriate superscript numeral for citation in the text.

DOES SPRINGER PROVIDE ENGLISH LANGUAGE SUPPORT?

For editors and reviewers to accurately assess the work presented in your manuscript you need to ensure the English language is of sufficient quality to be understood. If you need help with writing in English you should consider:

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- Visiting the [English language tutorial](#) which covers the common mistakes when writing in English.
- Using a professional language editing service where editors will improve the English to ensure that your meaning is clear and identify problems that require your review. Two such services are provided by our affiliates Nature Research Editing Service and American Journal Experts.
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If your manuscript is accepted it will be checked by our copyeditors for spelling and formal style before publication.