

USJ Submission Guidelines for Research Manuscripts

Submission Deadline: Sunday, December 11, 2022

Last Call Deadline: Sunday, January 1, 2023

The UCLA Undergraduate Science Journal is a registered student group and is a fully student run organization. It is essential that authors follow the guidelines listed below.

If the author fails to follow the guidelines, the work may not be accepted for publication. For more information about USJ, please visit our website:

www.uclausj.weebly.com.

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Eligibility:

- Article must be written by one or more undergraduate(s) currently matriculated at the University of California, Los Angeles.
- The UCLA Undergraduate Science Journal considers all articles which have subject matter related to the natural sciences, formal sciences, engineering and/or technology, including biology, chemistry, physics, mathematics, statistics, computer science, psychology, physical geography, astronomy, medicine, etc.
- Inquiries about whether or not an article is eligible for submission to USJ should be emailed to usj@g.ucla.edu.

Benefits of publication in the USJ:

- A great addition to resumes and applications
- Registration and copyright in the Library of Congress
- Eligibility to receive a Vice Provost Recognition Medal
- Special reception at the end of the year by
 - Dr. Tama Hasson, Assistant Vice Provost for Undergraduate Research and Director of URC – Sciences
 - USJ staff members

Obtaining previous/current issues of USJ:

Current issues of the Undergraduate Science Journal can be found at:

- URC – Sciences Office (2121 Life Sciences Building)
- Biomedical Library
- Science and Engineering Library
- Young Research Library
- Powell Library
- Arts Library
- Academic Advancement Program (AAP) Office (1209 Campbell Hall)
- MCDB SAO Office (128A Hershey Hall)
- MIMG SAO Office (1602B Molecular Sciences Building)
- EEB SAO Office (101 Hershey Hall)

All previous volumes of USJ are also archived in the Biomedical Library.

Submission Instructions:

Manuscripts should be submitted via [the Google form](#) on the USJ website (uclausj.weebly.com). The manuscript submission deadline is **Sunday, December 11, 2022**. Last call deadline is Sunday, January 1, 2023. Because of time constraints, late submissions will not be accepted for publication. A timely submission, however, is not a guarantee that your work will be accepted for publication. The USJ staff reviews all submissions prior to acceptance. Please make sure that all guidelines are followed carefully.

Manuscript Formatting:

Manuscripts should be submitted as a **single file in both PDF and Word document formats** containing the following three elements in order:

1. **Text:** Text should *not* have figures embedded within it
 - **Font size:** 11pt (applies to *all* text, including titles and headings)
 - **Typeface:** Times New Roman (with the exception of equations and computer code)
 - Headings and subheadings should be in **bold** and **ALL CAPS**
 - **Spacing:** Double-spaced
 - **Page margins:** 1 inch
 - **Page numbers:** Bottom of page
 - **Equations** should be left-justified, with format similar to the example shown below.

$$\sigma^2 = \sum_{n=1}^{\infty} P_i(x_i - \mu)^2 \quad (\text{Eq. 1})$$

- **Computer code** should be written in Courier New typeface, instead of Times New Roman.
2. **Figure/Table Legends:** Figure/table legends must be listed *after* the text. Each figure/table legend must be on a **separate page** and should contain the following:
 - **Figure/table label** (e.g. Figure 1., Table 1.)
 - **Caption** including 1) a **one-sentence title in bold** and 2) a **detailed description** of the figure/table
 - Caption should include details such as sample size, error bars specifically indicated as standard error or standard deviation, explicit values for bar graphs, best fit line equations, etc.
 3. **Figures/Tables:** Figures/tables should be listed *after* the list of figure/table legends. Each table or graph must be created in Microsoft Excel and converted to a TIF (.tif) image that has at least 300 dpi (pixels/inch) resolution. Each figure/table must be on a **separate page** and accompanied by the following:
 - **Figure/table label** (e.g. Figure 1., Table 1.)
 - **Indication of color vs. black/white:** Due to budget constraints, each figure should have an indication of whether color is necessary for its comprehension.

Research Article Contents:

1. **Title:** Should describe the subject matter of the article (example shown below)
 - Title should be on a **separate page**, and accompanied by the **author's name and affiliation(s)** and **faculty advisor's name and affiliation(s)**
 - **Character limit:** 75 characters (including spaces)
 - **Date:** should be included on the same page

A Chimeric Erythropoietin Receptor Fusion Protein in the TF-1 Cell Line

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Advisor: Dr. Lisa A. Schimmenti

Department of Human Genetics and Pediatrics

2. **Abstract:** The author must summarize *why* the research was conducted, *how* it was conducted, and what the major results and conclusions were. The abstract **should not cite any references.**
 - **Word limit:** 300 words
 - Should be a **single paragraph**
3. **Introduction:** The author must present the problem his or her research will address, why this problem is significant, and how it applies to the larger field of research. The author must clearly state his or her hypothesis, and quickly summarize the methods used to investigate that hypothesis. The author must address relevant studies by other researchers. The introduction should contain all the background information a reader needs to understand the rest of the author's paper. All important concepts should be explained and important terms defined. In a paper submitted to USJ, background information should be extensive enough for an undergraduate science major to understand, but not so detailed as to bog down a professional reader. The introduction
 - Should contain **at least 4 paragraphs**
 - Should **reference 1-2 articles per paragraph**
 - Must contain at least one **reference to a review article** on the subject matter
 - Must contain **at least 1 figure**
4. **Methods:** The author must thoroughly describe the methods used to investigate the problem, and briefly describe why these methods were used. The Methods section is divided into sections (1 for each method) with **italicized subheadings**. Any materials used should be documented, and any computer programs used should be discussed. The methods should be described in **sufficient detail** such that they could be repeated by a competent researcher. Please include the company sources as well as the company city and state for all uncommon reagents and equipment (kits, drugs, etc.).
 - Animal studies must explicitly state **IACUC approval**.

- Human studies must explicitly state **IRB approval**.
 - If a primer sequence was used, it must be included.
5. **Results:** The author should thoroughly detail the results of the experiments, models, or theories developed in the body of the article. The results should be supplemented by figures and tables, and the figures and tables should be briefly explained. *No interpretations or conclusions should be drawn* in the Results section.
- Each result should be in a separate subsection and the subsection heading should summarize the result, in one sentence. The subsection should be in **bold**.
6. **Discussion:** The author should restate the problem and summarize how the results have addressed it. The author should discuss the significance of the results and interpret their meaning. Potential sources of error should be discussed as well. Finally, the author should tie conclusions into the “big picture” by suggesting the impact and applications this research might have such as how the author’s field is affected or what future experiments could be carried out. The author should avoid emphasizing that the study presented in their article is incomplete, even if this is true.
7. **Acknowledgments:** The author should credit all people who have helped make the manuscript possible. Please include all applicable grants and other funding that supported your work. Please do not thank coauthors in this section.
- **Word limit:** 100 words
8. **References:** The author should include in this section all articles that are published or in press. Manuscripts submitted to USJ should follow the citation style described in the following section. The number of references should not exceed 45.
9. **Figures:** Figures may include schematics that illustrate experimental design and charts that present data. A figure may be a photograph only if it clearly enhances the reader’s understanding of the author’s work. For example, a picture comparing and contrasting the appearance of organisms collected during an author’s field experiment may be included in an ecological research article, whereas a picture of a person suffering from insomnia should not be included in an article investigating the molecular mechanisms of circadian rhythm.
- Figure captions:** Each caption should include a **one-sentence title** that summarizes the content of the figure, and a detailed description that explains pertinent information and any abbreviations used. Captions should summarize the data such that a reader can comprehend the figure without having to refer to the text.
- **Written consent** is required from the source of the figure, if it is not your own. This can be in the form of an email. This consent is necessary for figures from published journals, but is not needed for figures from government websites.
 - For each figure/table, authors should submit a version with the necessary text (ex: labels) and a version without the text (for layout purposes)

Citation Style:

As of 2017, USJ follows **Science Reference Style**. USJ recommends using bibliographic management tools such as Zotero and Endnote (see Resources section). Published sources should be cited both in-text and listed in the references section. Unpublished data, submitted manuscripts, or personal communications should be cited via text only. Personal communications should be documented by a letter of permission. Abstracts of work presented at meetings should not be cited.

- **In-text citations:** Citation numbers should be placed in parentheses and italicized: (1, 2, 4) (8-10, 13) (19-21). Numbers should not be superscript.
- **Reference list:** The reference list should be numbered, with numbers matching the order of occurrence in the article. References should be formatted as described below:
 - **Journal articles:** Author names should be written with first and middle initials separated by a space, followed by the surname. The word “and” should *not* be used to separate author names. If an article has more than 5 authors, the first author name should be followed by “*et al.*” (italicized). Abbreviated journal names should be used.

1. William R. Harvey, Signe Nedergaard, Sodium-independent active transport of potassium in the isolated midgut of the Cecropia silkworm. *Proc. Natl. Acad. Sci. U.S.A.* **51**, 731-735 (1964).
 - **Books:** Author names follow the same citation style as above. For edited books, “Ed.” or “Eds.” should be added. Book titles should be italicized and followed by the publisher name, publisher location, edition number and year of publication in parentheses.

1. M. Lister, *Fundamentals of Operating Systems* (Springer-Verlag, New York, ed. 3, 1984), pp. 7-11.

2. J. B. Carroll, Ed., *Language, Thought and Reality, Selected Writings of Benjamin Lee Whorf* (MIT Press, Cambridge, MA, 1956).

A more exhaustive description of *Science Reference Style* is available online at [Link 1](#).

Resources:

- **USJ Paper Planner:** The USJ Paper Planner is a resource that breaks down the writing process into manageable pieces, and assigns deadlines for each piece to help authors stay on track with their writing. The paper planner can be found at [Link 2](#).
- **Reference Management Software:** USJ highly recommends the use of bibliographic management tools such as Zotero and Endnote.
 - Remark: Zotero does not have the reference style for *Science* pre-installed, so authors should download the citation style from the Zotero Style Repository.
- **Undergraduate Writing Center:** The Undergraduate Writing Center is a free service offered to UCLA students that provides assistance with a variety of writing-based tasks, including writing scientific articles. More information about the Undergraduate Writing Center, including their schedule, can be found on their website: [Link 3](#).
- **Books:**
 - *A Student Handbook for Writing in Biology* by Karen Knisely (ISBN: 9781429234917)
 - *Successful Scientific Writing: A Step-by-Step Guide for the Biological and Medical Sciences* by Janice R. Matthews and Robert W. Matthews (ISBN: 9780521699273)
 - *How to Write and Publish a Scientific Paper* by Barbara Gastel and Robert A. Day (ISBN: 9781440842801)
- **USJ Website:** Examples of articles previously published in USJ can be found on our website: <http://uclausj.weebly.com>.

Uploading to Dropbox (for accepted articles):

Authors whose articles are accepted for publication in USJ will be provided a link to upload the following 3 documents to a secure USJ Dropbox:

1. A Microsoft Word document (.docx or .doc) containing the text-only manuscript.
2. A separate Microsoft Word document (.docx or .doc) containing one figure legend per page.
3. All figures/tables as separate TIF files (.tif) with 300 dpi (pixels/inch) resolution.

Links:

(The following is a list of all the links that were referred to in this guide):

- Link 1 (Instructions for preparing an initial manuscript):
<http://www.sciencemag.org/site/feature/contribinfo/prep/res/refs.xhtml>
- Link 2 (USJ Paper Planner):
https://docs.google.com/spreadsheets/d/15cwDTiDNmZRcY_RtIrdNBGY2Qxb2MptUD9XP_4W08J0/edit#gid=986555058
- Link 3 (Undergraduate Writing Center):
<http://wp.ucla.edu/wc>