INTRODUCTION

Overview

The Journal of Histochemistry & Cytochemistry (JHC) emphasizes the application of in situ assays essential to address the hypothesis of the research. Articles encompass the wide spectrum of biological and biomedical research, including pathology, cell biology, anatomy, neuroscience, microscopy, imaging techniques, molecular biology, biochemistry, spectroscopy, and toxicology. Articles typically accepted for publication also:

- Concentrate on the structure and function of cells, tissues, and organs, as well as mechanisms of development, differentiation, and disease.
- Cover new developments for in situ based assays, including microscopy and imaging, specimen preservation and handling.
- Report on the preparation of specimens and methodologic advances, but must advance the field in a broad manner.

ARTICLE TYPES

Articles

A full-length research report. There are no word or figure limits, but the editors may require manuscripts, tables, figures, and supplemental data to be edited and/or shortened.

Manuscript requirements – Manuscript sections must include a Running Headline/Short Title, Title Page, Abstract, Keywords, Introduction, Materials and Methods, Results, Discussion, Acknowledgements, Funding Statement, Literature Cited, Figure Legends, Tables and Table Legends.
Reviews

Reviews cover the existing state of understanding in a specific research area or topic. Mini-reviews, which are clear, concise, and highly focused on the current state of a particular field, are highly encouraged. Authors should contact the Editor-in-Chief (johc@histochemicalsociety.org) prior to submission of non-invited reviews.

Manuscript requirements – Manuscript sections must include a Running Headline/Short Title, Title Page, Abstract, Keywords, Text with Subheadings, Acknowledgements, Literature Cited, Figure Legends, Tables and Table Legends. *Materials and Methods and Discussion sections are not required.*

Perspectives

A subjective evaluation of a significant research topic, area, or event. Authors should contact the Editor-in-Chief (johc@histochemicalsociety.org) prior to submission.

Manuscript requirements – Manuscript sections must include a Running Headline/Short Title, Title Page, Abstract, Keywords, Text with Subheadings, Acknowledgements, Literature Cited, Figure Legends, Tables and Table Legends. *Materials and Methods and Discussion sections are not required.*

Letters to the Editor

Letters to the editor can be a brief comment on a recently published work or issue of concern, or research trend. At the discretion of the Editor-in-Chief, responses and opposing viewpoints may be solicited and published. *Letters to the editor are not for reporting new methods, data or research results.*

Manuscript requirements – No sections are required and there is no charge for publishing. Size limitations: 1) Maximum length of 10,000 characters and spaces; 2) maximum of two figures; 3) maximum of two tables.

Editorials

Editorials convey opinions of one or more of the editors or that of the publisher. Third-party editorials are only considered for publication when solicited by the Editor-in-Chief.

Manuscript requirements – Editorial length and section headings are at the discretion of the Editor-in-Chief.
EDITORIAL PROCESS

All manuscripts are initially assessed by the Editor-in-Chief and/or a Monitoring Editor from the JHC Editorial Board. The editors may reject a submission at any stage in the submission process.

Original research Articles and Reviews are typically reviewed by a minimum of two or more third-party experts, however additional opinions may be sought if the editors deem it necessary. Submissions to other categories, such as Perspectives, Editorials, and Letters to the Editor are subject to peer review at the discretion of the Editor-in-Chief. JHC has a single-blind review policy. Author identities are fully available to peer reviewers, but reviewer identities remain anonymous to authors.

Editorial Policies and Standards

Previous publication – Upon submission, authors must confirm that their manuscript has not been published previously, is not currently in press, is not publicly available in any form or format, and is not under consideration elsewhere. Authors wishing to reproduce material appearing in other publications, such as figures, tables or limited text passages, must obtain appropriate permission from the copyright holder and reproduced material must be disclosed in the cover letter.

Related publication/ Companion submissions – JHC considers companion submissions if there is a clear correlation between the two manuscripts. Companion manuscripts must be approved for simultaneous consideration by the Editor-in-Chief.

Author Contributions – The Journal adheres to authorship policies and criteria as defined by the International Committee of Medical Journal Editors (ICMJE) (http://www.icmje.org). Accordingly, all authors must have contributed to the research design or execution, or the writing of the manuscript. Each author’s contribution must be delineated in the submission after the acknowledgements (i.e. planning, execution, analysis of the study, etc.). The Journal requires that all authors read and approve the manuscript, tables, figures, and references prior to submission, and a statement must be included in the cover letter indicating that all authors have given this approval and that they approve of the submission to JHC. All authors are responsible for the accuracy of the manuscript and agree to be accountable for the integrity of the work.

Conflict of Interest – All authors and/or contributors must disclose any conflicts of interest or perceived conflicts of interest. This may include, but not be limited to: commercial affiliations, consultant affiliations, stock, equity, or patent/licensing interests. All funding sources, including grant numbers, must be disclosed in the Acknowledgments section.

Original Data – The Editor-in-Chief may request original data at any time during review, after acceptance, pre-publication, or post-publication as deemed necessary.

Reproducibility – Methods should be described in sufficient detail to enable others to reproduce the experiments. The Journal shall determine if the methods are sufficiently detailed. In addition, all information necessary for the
full and complete replication of experiments must be included in the main body of the article and not included as supplemental data. For guidance on antibody validation, authors are encouraged to consult: Controls for immunohistochemistry: the Histochemical Society's standards of practice for validation of immunohistochemical assays. J Histochem Cytochem. 2014 Oct;62(10):693-7.

Plagiarism – Authors must attest the work does not contain plagiarized content. Authors are encouraged to evaluate their manuscripts with commercially available software for plagiarism detection.

Image Manipulation – The journal understands that some image manipulations (e.g., contrast enhancement) are acceptable and may be desirable for clarity and accuracy, provided that the manipulation does not change the interpretation of the data. However, it is incumbent upon authors to report all such manipulations at the time of manuscript submission. JHC screens all images using forensics image analysis. Image manipulations such as splicing, cloning, erasing, contrast adjustments to the point of losing background, and filling in with an artificial background will be detected and result in cessation of manuscript production. The authors will be asked to provide the original unaltered images for evaluation and forensic analysis. Depending on the forensics findings, the Editor-in-Chief, may elect to continue production or reject the manuscript. When contacted for original images, authors should expect to provide the original, unaltered images within 72 hours. In some situations, replacement figures will also be necessary and these will be required within 72 hours as well. Final publication is contingent on a satisfactory forensic image analysis outcome.

Ethical Concerns

Research and Publication Ethics – The journal, its editors, the Histochemical Society, or SAGE make no judgement on the validity of allegations of misconduct directed at articles, submissions or authors, and defer to the findings and recommendations of the corresponding author’s institution. The journal conducts no investigations, but will forward misconduct allegations to the authors with a requirement that they bring them forward to the appropriate individual(s) at their institution. In cases where authors refuse to comply with the journal’s requests to forward allegations, the journal reserves the right to publish a notice of concern. If, after a notice of concern has been published, the authors comply with the journal’s request to have an allegation investigated, the journal will retract the notice of concern, or replace it with an appropriate communication. Because the journal conducts no investigations of its own, those who wish to bring allegations forward anonymously should contact the authors’ institutions directly. Outside of these policies, the journal follows guidelines established by the Committee on Publication Ethics (COPE) (http://publicationethics.org/).

Human and Animal Study Compliance – For studies that employed animals, authors must state that the research followed institutional, local, and national guidelines for animal experimentation and was approved by an institutional committee on animal research. If findings from human studies are reported, JHC requires that all procedures were followed in accordance with the principles of the Helsinki Declaration of 1975 and were approved by the author’s institutional committee on human experimentation. Manuscripts must contain statements that acknowledge that the research on humans and animals was approved by the appropriate institutional review committee.
MANUSCRIPT PREPARATION

Title Page and Corresponding Author Information

Supply full title without abbreviations. The editors may require authors to revise excessively long or unclear titles prior to peer review or final publication. List all authors by first name, middle initial, last name; list all author affiliations (use authors’ initials in parentheses if necessary); designate corresponding author and list mailing address, phone, and e-mail. If two authors have contributed equally, this can be stated and will be published as such.

Running Headline / Short Title

The running head / short title should be no more than 48 characters including spaces.

Abstract and Keywords

Draft an unstructured one-paragraph abstract of no more than 200 words, and spell out all nonstandard abbreviations. Also, please include a list of 3 to 10 key words that do not repeat terms already used in the title or abstract. The U.S. National Library of Medicine provides a free tool to help people find key words in their text. You can access it here: https://www.nlm.nih.gov/mesh/MeSHonDemand.html.

Materials and Methods

*Manufacturer Location* – Provide the manufacturer's name and location (city and state for U.S., city and country for outside the U.S.) in parentheses for reagents and instruments. Indicate the sources for all antibodies and nucleotide sequences.


Results

To improve readability of your manuscript, please include subheadings in the results section whenever possible. Also, figures should be cited in consecutive numerical order.

Discussion

The discussion does not have any specific format, however a summary paragraph of the primary findings is encouraged.
Acknowledgements

Acknowledgement must be given to contributors who are not authors. State their full names, institutions, degrees if appropriate, and contributing roles.

Competing Interests

A competing interest exists when interpretation or presentation of data or information may be influenced by personal or financial relationship with other people or organizations. All authors are required to provide a declaration of competing interests, for example consultancies, stock, equity, patent/licensing interests. These will be listed at the end of published letters, articles, perspectives and reviews. Where an author has no competing interests, the following statement is suggested: “The author(s) declare they have no competing interests”.

Funding Statement

A funding statement is required for all submissions, even if no outside funding was used. All funding sources must be disclosed in the Funding section. If there are none, please indicate this.

Author Contributions

JHC subscribes to the recommendations of the International Committee of Medical Journal Editors.

Authorship should be based on the following criteria:

- Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work; AND

- Drafting the work or revising it critically for important intellectual content; AND

- Final approval of the version to be published; AND

- Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved. Author contributions will be listed in a section at the end of the manuscript. Please use initials to denote each author’s contributions. When two authors share the same initials, please use first and last names): We suggest a format as follows:

  AB performed the immunohistochemistry, CD carried out the molecular genetics studies, EF designed the study and drafted the manuscript. All authors have read and approved the final manuscript.
References

• The Journal of Histochemistry & Cytochemistry as of June 2016 adopted the NLM citation format. The specifics of citations can be found online at: Citing Medicine: The NLM Style Guide for Authors, Editors, and Publishers [Internet]. 2nd edition. (http://www.ncbi.nlm.nih.gov/books/NBK7282/)

Abbreviations and Style

Widely used abbreviations (such as DNA, ATP) do not need to be defined in the text. All non-standard abbreviations should be defined the first time they are mentioned in the text. Refer to The Journal of Biological Chemistry for recommended abbreviations for biological compounds, Chemical Abstracts for names of chemical compounds, Conn’s Biological Stains (10th Edition, RW Horobin and JA Kiernan (eds.), BIOS Scientific Publishers) for nomenclature, and the CSE Style Manual (2006, 7th ed., Council of Science Editors) for scientific abbreviations.

Use SI units only. Degree symbols are not published by JHC. All temperatures are printed as follows: 78°C, in Celsius units.

Technical Specifications

Manuscript File – The manuscript file should be in a Microsoft Word compatible format (.doc, .docx, .txt, .rtf). Do not attempt to typeset the manuscript or use any special formatting. This may interfere with the production process. The body of the manuscript should begin on page 4 of the document. Individual sections, including figure legends, must all be contained in the same single document file, beginning each section on a new page. For revisions, please include both a “clean” copy of your text and a separate copy with “tracked changes”.

• Format as follows:
  • Double-space
  • 2.5 cm (1 inch) margins
  • Left justification
  • Page numbers at the bottom of each page; centered or right-justified
  • 12-point font in Times New Roman, Times, Calibri, or Arial throughout the manuscript.

Use of other fonts may cause problems during typesetting. JHC style will dictate the use of format. Please remove or avoid the following in your manuscript:

• Do not include Footnotes or Appendices.
• Do not embed figures. Each figure will be supplied separately from the manuscript file.

• Avoid bold, underlining, or italics in the manuscript.

• Avoid using the 'Insert Symbol' function in Word. For Greek symbols, such as μ and α, please use the Symbol Font, which is available as a standard font with most word processors.

• Do not vary the point size or positioning to create superscripts or subscripts. Use superscript functions.

Special Note Regarding Reference/Citation Managers

There are some common problems if you use a citation or reference manager to assemble your references. Such programs generally use ‘field codes’ to track and arrange the citations in your manuscript. Unfortunately, field codes can (very unintentionally) result in deletions when the manuscript document file is used for publication. *JHC* requires that all field codes be removed from your manuscript text before it is submitted for publication. The following excerpt from Adept Scientific describes how to do this in Microsoft Word:

"Many publishers require that you remove ALL field codes before submitting an electronic manuscript. Field codes are used in Microsoft Word to link your citations to your bibliographic references. Make sure you remove hidden codes in a copy of your final manuscript. Please note that once you remove all hidden codes, you can no longer reformat or unformat the citations or bibliography, so always make a copy of your document prior to removing any codes. To remove the hidden codes, go to the Edit menu and choose Select All. Press Ctrl+Shift+F9 or Cmd+6 to unlink all fields. Your in-text citations and bibliography become regular text, without field codes or any hidden links."

Figure / Table Citations & Legends

*Citations* – Cite figures and tables within the manuscript in consecutive numeric order (e.g. Fig. 1, Fig. 2, Figure 3; Figs. 1-4; Fig. 4 and 7; Table 1; Table 2). For in-text citations, “Figure” should be spelled out in full if it is the first word of a sentence and abbreviated to “Fig.” in all other instances.

*Figure Legends* - Figure legends follow the References section and are required for peer review. Indicate scale bar sizes in the figure legends rather than directly on the image/figure. Scale bar sizes should be noted in the last sentence of each figure legend when applicable.

*Table Legends* - Table Legends or keys must accompany each table and should follow the Figure Legends.

Tables

Tables are at the end of the manuscript, after the Figure and Table Legends. Construct in either Word or Excel table format. Do not embed photographs or image files of tables. Number consecutively using Arabic numerals.
FIGURE PREPARATION

Digital Images

The Journal takes great pride and places substantial emphasis on publication of high quality photomicrographs and other images that are integral to highlighting the value of in situ assays in the study of biology.

Typical figures fall into three categories: **Continuous-tone**, **Line-art**, and **Combination** images. Each image type has specific requirements in terms of the resolution needed for publication.

**Resolution** – A minimum resolution of **300 dpi** (pixels/dots per inch) is required for image composites, and **800 dpi** (pixels/dots per inch) is required for line art or combination composites.

**NOTE:** For a figure to be used in publication, its Digital Image File must have the required resolution when it is created. The resolution cannot be raised after the original image is made. Attempting to do so (for example, with Adobe Photoshop’s © “Image Size” command) results in the addition of artificial pixels that distort the image and lower its sharpness.

**Image Adjustments or Enhancements** - Images should accurately reflect the original data. Linear adjustments in brightness, contrast, or color balance are acceptable if applied to the entire image. Selective linear adjustments to portions of images are not acceptable. Non-linear adjustments are acceptable only if they are applied to the entire image, are clearly disclosed in the figure legend, and do not alter the interpretation of the original image.

**Color Format** – Submit your figures in RGB format to obtain the highest level of detail and image quality in the online Journal. We encourage you to supply digital image files containing color profiles if your image-editing software supports them. Because CMYK contains fewer colors than RGB, some detail and information can be lost when the figures are converted for print publication. CMYK color is still used when producing the print edition of JHC, but figures in the online Journal are produced in RGB color.

Sizing & Layout

**Orientation** – JHC publishes figures in Portrait orientation (long edge vertical).

**Size** – JHC publishes 1-column (3.25 inches / 8.25 cm), 1.5-column (4.67 inches/11.85 cm), and 2-column (6.75 inches/17.1 cm) width figures. Any figure wider than 6.75 inches (17.1 cm) or taller than 8.75 inches (22.1 cm) will be reduced to fit in these dimensions.
Labeling

Note: Do not include figure numbers or bar sizes on figure panels.

*Image Panels* – Label all panels with capital letters (A, B, C, etc...) in the upper or lower left corner of each panel.

*Fonts* – Limit fonts to Times New Roman, Times, Calibri, or Arial throughout the manuscript. Other fonts cannot be guaranteed to reproduce properly.

*Scale Bars* – Include scale bars in the lower or upper right corner of a panel. If the bar size is the same for all the panels in a composite, only one bar is needed for the entire set.

*Scale Bars Sizes* – Indicate scale bar sizes in the figure legends rather than directly on the image/figure. The scale bar size should be stated in the last sentence of each figure legend when applicable.

*Magnifications* – *JHC* does not publish magnifications.

Supported Software and File Formats

**Supported Software**
- Adobe Photoshop
- Adobe Illustrator

If a program is not listed here, then *JHC* does not support figures saved in its format. For unsupported software such as Corel Draw, Macromedia Freehand, Gimp, etc... figures must be saved in a non-proprietary format.

**Accepted File Formats** – Files saved as TIFF, Bitmap, JPEG, and EPS are accepted for review and publication. *JHC* cannot accept PDFs or images embedded in Word documents.

OTHER SUBMISSION REQUIREMENTS

To submit to *JHC* click here or, from the *JHC* homepage at [http://journals.sagepub.com/home/jhc](http://journals.sagepub.com/home/jhc) click on “Submit Paper.”

For Submissions and Peer Review *JHC* utilizes the eJournalPress (eJP) online peer-review system. As the Corresponding/Submitting Author, click on the “New Users: Register Here” link (or enter your Login Name and Password, if you are already registered). The system will then direct you through the process of setting up a user profile. Once completed, you will be returned to the submission main page to log in with your new username and password. Under “Author Tasks” select “Submit Manuscript”. You may then click and be guided through the submission process. You may access your account at any time to track the progress of your article through the
peer-review process.

Prior to submission, please review and follow this document and *JHC*’s Digital Art Guidelines. Be prepared with the following files: Cover Letter, Manuscript File, and Figure Files.

**Cover Letter**

The following items are required in your cover letter:

1. Manuscript Title
2. Type of Manuscript – Article, Review, Perspective, Letter to the Editor
3. A statement that describes the significance of the paper.
4. Identify the corresponding author, with complete address, telephone, and e-mail information).

Manuscripts submitted without a cover letter cannot be processed for peer review.

**Manuscript File**

*File Types* – Upload manuscript file in a Microsoft Word compatible format

*Manuscript preparation* – For detailed formatting information go to the [Manuscript Preparation](#) section of the Instructions for Authors.

**Figure/Image Files**

*File Types* – Upload images as TIFF, Bitmap, JPEG, and/or EPS files. PDFs or images embedded in Word documents are not acceptable for review or publication.

*Figure Preparation* – For detailed formatting information go to the [Figure Preparation](#) section of the Instructions for Authors.

**Supplemental Material**

*Information necessary for the replication of the experiments / work must be presented in the published manuscript and not demoted to supplemental data.* Supplemental materials can include images, movies, data sets, and other files that support and augment the content of the manuscript. Supplemental material will be published only in the online version of *JHC*. These materials are referenced in your manuscript, and can be accessed via the online Journal. Supplemental material is posted online in its original format. Supply your files as you wish them to be presented online. No copyediting or typesetting will be performed by the publisher. Each file will be presented as a link within the Supplemental Material section of the online article publication. The editors reserve the right to restrict supplemental data that are excessively long, inappropriate for the article or journal, or
are of questionable value to the readership.

Supplemental materials generally fall into the following categories:

- Movies files
- Extra Tables
- Extra Figures
- Datasets (e.g. sequences, sequence alignments, GenBank Accession information)

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AUTHOR FEE SCHEDULE

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JHC offers publish ahead of print (also known as OnlineFirst) for manuscripts that have completed production and typeset. Articles are assigned a DOI and published online before they are assigned to a print issue.
OPEN ACCESS AND DEPOSITS TO PMC

JHC provides the following assistance to authors whose articles require deposit to the National Library of Medicine’s PubMed Central (PMC):

For manuscripts funded through US agencies, such as the National Institutes of Health (NIH), JHC will deposit the “author’s final manuscript” into PMC for release twelve months after publication to comply with Federal Guidelines for Public Access. JHC considers the “author’s final manuscript” to be the peer-reviewed, copy-edited version of the article.

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http://www.uk.sagepub.com/journalgateway/pubPolicies.htm

PREPRINT SUBMISSIONS

The Journal of Histochemistry & Cytochemistry permits the submission of preprint manuscripts, which will undergo the same review process as “non-preprint” manuscripts. Preprint submissions must meet the following criteria and conditions:

• The preprint cannot be under consideration for publication elsewhere, at any time it is being considered for publication by JHC.
• Once a manuscript has been formally submitted to JHC, no additional versions of the manuscript may be posted to preprint servers (A) while it is under consideration or reconsideration, (B) while undergoing revision prior to, or during, re-review/resubmission, and (C) while being prepared for publication.
• Additional manuscript versions of articles published by JHC may not be posted to preprint servers after publication unless these manuscripts have an open access copyright license.
• The preprint must be assigned a preprint DOI, and the preprint server must make all versions of a preprint manuscript (and related materials, such as figures, tables, supplemental data, etc.) available, as well as make it clear which version is the latest version.
• The preprint server must automatically link to the article in the journal once the article has been published on the journal’s web site.
• Preprint submissions posted to preprint servers with an open access license are allowed, but authors will
be required to pay the SAGE Choice open access fee as a condition of acceptance.

• The authors must: (A) disclose at first submission that a manuscript has been posted to a preprint server, (B) indicate which server is being used and the copyright license under which the manuscript has been posted, and (C) provide a link to the preprint version of the article.

• Once a manuscript has been formally submitted, the authors may not change the copyright terms of the preprint.

Failure to meet these criteria and conditions may result in the disqualification of a submission at any stage, resulting in immediate rejection. In addition, the journal reserves the right--but is not obligated--to consider the comments made to manuscripts posted to preprint servers and factor these comments into final decisions at any stage of the peer review process.

CONTACT

For assistance or questions, feel free to contact Chanel George in the JHC Editorial Office directly at cgeorge@faseb.org, or 301-634-7791.