

Introduction to Manuscript Writing

Kris Greiner, Editor



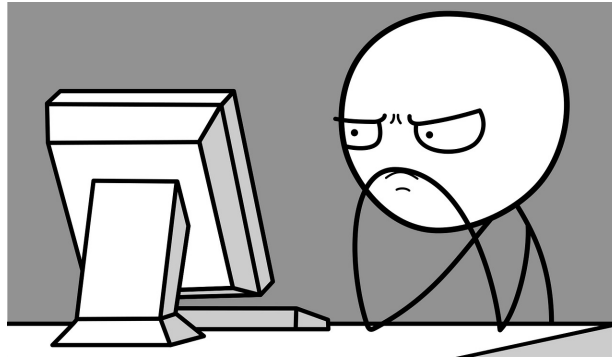
What does a medical/scientific editor do?

- Spelling, grammar, punctuation, language
- Consistency
- Flow
- Reduce word count
- Formatting
- Figures, tables and all the extras
- Response to reviewers/revisions
- Proofs

What types of projects?

- Manuscripts: journal articles, book chapters
- Grants
- Abstracts
- Posters and PowerPoints
- Patient education materials
- Personal statements, bios, CVs
- Web text
- Correspondence

I have to write a ... Where do I start?



Read. The. Instructions!



After reading the instructions

- Start with an outline or template
- Fill in the easy parts first – the stuff you already know
- When finished, leave it alone for a while, then re-read
- Ask a colleague to read
- Last step before submission: editorial help

Manuscripts

Articles

Book chapters

Where do I submit?

- Find your audience
 - Which journals do *you* read?
 - Online journal finders
 - <https://www.ncbi.nlm.nih.gov/nlmcatalog/journals>
 - <https://journalfinder.elsevier.com/>
 - <https://journalsuggester.springer.com/>
 - <https://journalfinder.wiley.com/>
 - <http://jane.biosemantics.org/>
- Impact factors
- Indexed in PubMed
- Open access
 - Worth the cost? Do I have the funds?
 - Reputation of journal

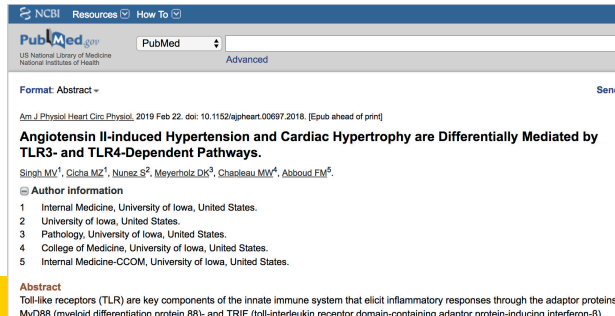
Title Page

- Title
 - Keep it short and simple
 - Use key terms and active voice
 - Avoid abbreviations
 - Check to see if there is a character limit or word count
- Authors
 - Make sure authors agree on order, corresponding author
 - Use full professional names — not initials only, and no nicknames
 - List highest degrees unless otherwise instructed

Title Page

- Affiliations

- Use superscript letters or numbers to denote departments/institutions (again, check instructions)
- Keep affiliations as simple as possible: group all authors from the same institution together
- Affiliations are where each author was when the work was done
- Always list full, precise affiliations



The screenshot shows the PubMed interface. At the top, there's a navigation bar with 'NCBI', 'Resources', and 'How To'. Below it is the 'PubMed' logo and a search bar. The main content area displays the abstract for a paper titled 'Angiotensin II-induced Hypertension and Cardiac Hypertrophy are Differentially Mediated by TLR3- and TLR4-Dependent Pathways'. The authors listed are Singh MV¹, Cicha MZ¹, Nunez S², Meyerholz DK³, Chapleau MW⁴, and Abboud FM⁵. The affiliations are listed below the authors: 1. Internal Medicine, University of Iowa, United States; 2. University of Iowa, United States; 3. Pathology, University of Iowa, United States; 4. College of Medicine, University of Iowa, United States; 5. Internal Medicine-CCOM, University of Iowa, United States. The abstract text begins with 'Toll-like receptors (TLR) are key components of the innate immune system that elicit inflammatory responses through the adaptor proteins MyD88 (myeloid differentiation protein 88)- and TRIF (toll-interleukin receptor domain-containing adaptor protein-inducing interferon-β)'.

NCBI Resources How To

PubMed
US National Library of Medicine
National Institutes of Health

Format: Abstract

Send

Am J Physiol Heart Circ Physiol. 2019 Feb 22; doi: 10.1152/ajpheart.00697.2018. [Epub ahead of print]

Angiotensin II-induced Hypertension and Cardiac Hypertrophy are Differentially Mediated by TLR3- and TLR4-Dependent Pathways.

Singh MV¹, Cicha MZ¹, Nunez S², Meyerholz DK³, Chapleau MW⁴, Abboud FM⁵.

Author Information

- 1 Internal Medicine, University of Iowa, United States.
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- 4 College of Medicine, University of Iowa, United States.
- 5 Internal Medicine-CCOM, University of Iowa, United States.

Abstract

Toll-like receptors (TLR) are key components of the innate immune system that elicit inflammatory responses through the adaptor proteins MyD88 (myeloid differentiation protein 88)- and TRIF (toll-interleukin receptor domain-containing adaptor protein-inducing interferon-β).

Title: ANGIOTENSIN II-INDUCED HYPERTENSION AND CARDIAC HYPERTROPHY ARE DIFFERENTIALLY MEDIATED BY TLR3- AND TLR4-DEPENDENT PATHWAYS

Authors: Madhu V. Singh¹, Michael Z. Cicha¹, Sarah Nunez¹, David K. Meyerholz³, Mark W. Chapleau^{1,2,4} and François M. Abboud^{1,2}

¹Abboud Cardiovascular Research Center, ²Department of Internal Medicine, Department of Molecular Physiology and Biophysics, ³Department of Pathology, Carver College of Medicine, University of Iowa, Iowa City, IA 52242; ⁴Veterans Affairs Medical Center, Iowa City, IA 52242.

Title Page

- Corresponding author
 - Denote as instructed or simply list “Please direct all correspondence to:”
 - List postal address with correct zip code
 - Denote “current address” if corresponding author is no longer at institution where the work was done
 - Phone, fax, email as required by those pesky instructions

Affiliations

Madhu V. Singh¹, Michael Z. Cicha¹, Sarah Nunez¹, David K. Meyerholz², Mark W. Chapleau^{1,3,4},
Francois M. Abboud^{1,3}

University of Iowa ¹Department of Internal Medicine, Abboud Cardiovascular Research Center,
²Department of Pathology, ³Department of Molecular Physiology and Biophysics, and ⁴Iowa City VA
Health Care System

Title Page

- Any other required info according to author instructions
 - Word, figure, table counts
 - Disclosures
 - Funding sources
 - Abbreviations
 - Running head/title

Abstract

- Word count limit
- Structured?
 - Use subheadings exactly as instructed
- Spell out all abbreviations at first mention
- No references
- Keep it concise!
 - Look for places to remove articles “the,” “a/an”
 - “~~The~~ results demonstrated ...”
 - Include only significant results
 - Look for phrases that can be shortened
 - “We sought to determine whether...” → “We examined...”

Key Words

- Look past the title words
- Check PubMed MeSH Database
 - <https://www.ncbi.nlm.nih.gov/mesh>
- Separate words and terms with semi-colons so multi-word terms are easily recognized
 - chemotherapy, adjuvant; immunotherapy; quality of life; disease-free survival

Main Text: Introduction

- Avoid unnecessary, broad background info that your audience already knows, i.e., “Obesity incidence in the U.S. is rising.”
- State clearly and concisely what you studied, why it’s important
- Use PRIMARY references to support why your study is important

Main Text: Materials and Methods

- Tell what was done chronologically
- Break into subsections with clear subheadings, i.e., Patients, Interventions, Data Analysis
- Use generic names for medications
- List manufacturer, city, state (country) for all lab chemicals, reagents, specific equipment, etc.
- Include software and version for data analyses tools
- Include IRB approval, informed consent, Animal Care and Use approval

Main Text: Discussion

- This is the most important section of a manuscript - explaining why your study matters
- Keep the focus to why you have proven/disproven your main hypothesis
- Do not *repeat* Results – *interpret* them
- Acknowledge limitations
- Be humble! State only what you have been able to support; be careful when extrapolating or speculating
- “So now what?”
 - Describe the implications for practice, further research

Main Text: Conclusions, Summary

- Not all journals include formal Conclusion or Summary sections – check those instructions!
 - But you can still wrap up with a summarizing paragraph
- Keep it SHORT: precise and concise
- Don't restate Results or Discussion
- Finish with a clear sentence or two stating that your findings are important to the reader
“because...”
 - Be a bit humble here
- State your planned expanded/future studies or suggest “future studies should ...”

References

- **Check instructions for format!**
 - In the text and in reference list
- Be careful using reference manager software, e.g. EndNote
- Use the most recent sources
- Always use PRIMARY sources
- In the text, always note the reference at the end of the first sentence related to the citation



References



EndNote

Norman, P.E., Powell, J.T. (2014) Vitamin D and cardiovascular disease. *Circ Res.* 114(2): 379-393.

Journal style

Norman PE, Powell JT. Vitamin D and cardiovascular disease. *Circ Res* 2014;114:379-93.

Acknowledgements, Funding, Disclosures

- Thank those who are not authors but provided substantial assistance:
 - Donated supplies
 - Reviewed article
 - Those who assisted in a clinical trial
 - Your friendly medical editor or illustrator
- Grant funding information
 - Gov't funding usually required to be noted on title page or in specific Funding section
 - NIH and other funded work must be deposited into PubMed Central at publication – not all journals do this; you may need to do it yourself
 - <https://publicaccess.nih.gov/policy.htm>

Figures

- Do not embed figures into the Word document (usually)
- Most journals require high-resolution images
 - Usually TIFF, EPS, PDF
- Do not copy and paste images found online – the resolution is not sufficient for printing and you likely don't have permission to use
- Kris or Teresa Ruggle can help with figures

How do I know an image is hi-res?



300 dpi, 2.1 MB file



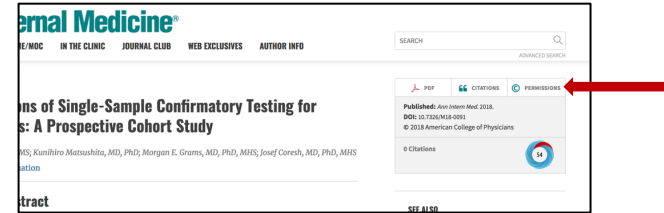
72 dpi, 21 KB file

Figures

- Create/use original images as often as possible
- Patient images
 - If using patient imaging studies, redact all patient identifiers – simple black boxes ok
- Modified images/tables/graphs still need permission to reproduce and alter
- Crop the image to show only what is needed; crop out large margins around the image

Figures: Previously Published

- Seek permission if reusing previously published or online images (Kris can help!)

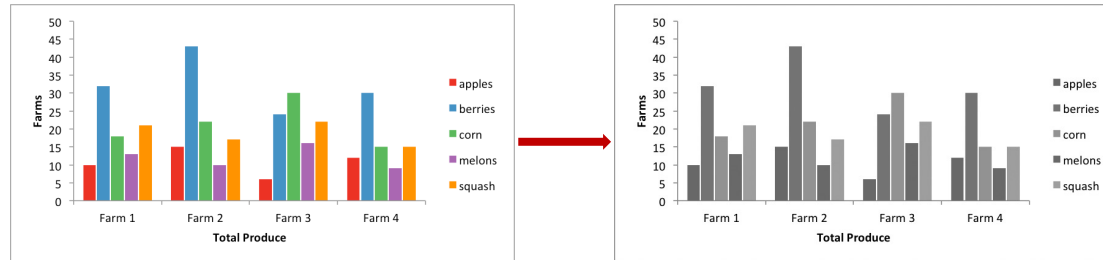


- Make sure you can download a high-resolution version of the image



Figures

- Write clear, simple figure legends
- Make sure all figures are noted in the text, in order
- Check instructions and fees for color images
 - Is image/graph clear if reformatted to B&W?



Tables

- Use in place of Results text
 - Do not duplicate data in text and a table
- Avoid overly complex design elements, such as shading or ornate lines between columns and rows
 - Table design should not upstage the data
- Include a descriptive title of the table
- Make sure all tables are noted in the text, in order
- List footnotes, abbreviations using symbols or letters according to instructions

Cover Letter

- Include required statements
- If descriptive, start with your main conclusion, then why it fits the journal

Dr. John Smith, Editor-in-Chief
Journal of Ophthalmology

Dear Dr. Smith:

We are submitting our manuscript entitled “Taking antioxidants plus zinc reduces the risk of advanced age-related macular degeneration for high-risk patients,” for consideration for publication as an Original Article in *Journal of Ophthalmology*.

Results from this large, randomized, controlled trial demonstrate significant improvement in patient symptoms, and is a simple, cost-effective method that readers can implement easily and quickly into routine practice.

[Any required text: disclosures, funding, author participation, IRB/ACUC approval]

Thank you for your consideration of this manuscript.

Extra Stuff

- Highlights, annotated references, lay summary, précis
- Bulleted references
- Appendices
- Suggested reviewers, editors
 - **Take advantage of this:** get your paper into the hands of reviewers who appreciate and fully understand your work
 - This will help speed the review process

General Advice

- Use plain language
- Look at recently published articles in your target journal for style and formatting
- Review articles: sometimes by invitation only, so check journal instructions
- Case reports: consider the pros and cons

Your paper has been submitted!

Now what?

What happens after submission?

- Editorial office checks general requirements
 - Formatted correctly?
- Editor decides if subject is useful/timely
- Sent for peer-review
 - 6-8 weeks for review, but this varies greatly
 - All comments by reviewers are collected and collated
- Reviewers' comments are sent back to corresponding author with instructions on how to proceed with revision

The Wait (and usually more waiting)

- Turnaround times vary
- If well past the “promised” time has elapsed, contact the editorial office via email
- Be polite
 - “We submitted our paper assigned manuscript ID 2405 on June 1, 1972. We kindly request an update on the status of this paper.”

The Wait. The Rejection. The ...

- Wait. What?



The Rejection



- Don't despair!
- Quick rejection or after review?
 - Quick: guidelines not followed, English not sufficient for review, incomplete components
 - Subject doesn't match the journal
- Consider **objectively** any reviewer/editor comments you did receive and revise accordingly, even before submitting to a different journal
- Reformat before you submit elsewhere!
 - If the paper is formatted for Journal A, read the instructions for formatting for Journal B!

Revisions



- Read the instructions carefully
 - Never assume “the journal will take care of that”
- Address each reviewer comment or question directly and specifically – copy and paste these into your response letter
- It’s ok to disagree with a suggestion ... politely
- Double-check that changes in the paper are noted in the letter

Confessions of a science journal editor

<https://www.elsevier.com/connect/confessions-of-a-managing-editor-or-6-reasons-im-returning-your-manuscript> (aside from the content)

- Written English needs review
 - Don't rely on Word spell check/grammar check
- References are not in proper format!
 - Don't rely on EndNote
- Abbreviations and acronyms = alphabet soup
- Tracked changes, comments have not been removed prior to submission
- Figures are not formatted as instructed

Resources

- Hardin Library
 - <http://www.lib.uiowa.edu/hardin/>
 - Int Med Subject Guide: Heather Healy
 - Open-access journal questions: Janna Lawrence
 - Open workshops:
<https://www.lib.uiowa.edu/hardin/workshop/>
 - <https://www.lib.uiowa.edu/hardin/tutorials/>
- Graphics and original art, posters
 - Ann Armstrong and Teresa Ruggle, Design Center