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Sam Jones, PhD Science Writer & Exec Producer



Deboki Chakravarti, PhD Science Writer & Co-Host

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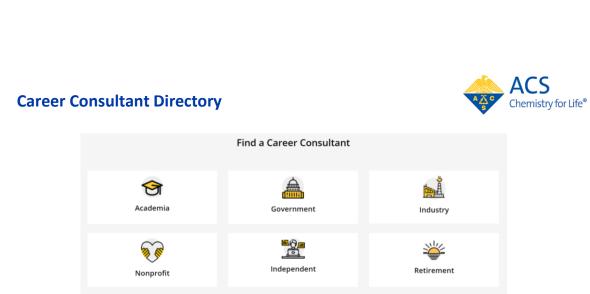
A Career Planning Tool For Chemical Scientists





ChemIDP is an Individual Development Plan designed specifically for graduate students and postdoctoral scholars in the chemical sciences. Through immersive, self-paced activities, users explore potential careers, determine specific skills needed for success, and develop plans to achieve professional goals. **ChemIDP** tracks user progress and input, providing tips and strategies to complete goals and guide career exploration.

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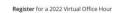
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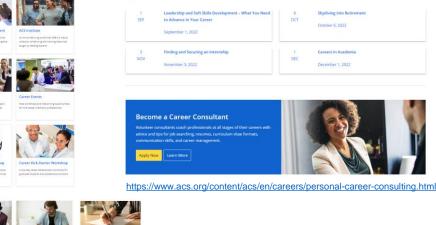


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ACS Career Resources







https://www.acs.org/content/acs/en/careers/developing-growing-in-your-career.html

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ACS Scholar Adunoluwa Obisesan

BS, Massachusetts Institute of Technology, June 2021 (Chemical-biological Engineering, Computer Science & Molecular Biology)

"The ACS Scholars Program provided me with monetary support as well as a valuable network of peers and mentors who have transformed my life and will help me in my future endeavors. The program enabled me to achieve more than I could have ever dreamed. Thank you so much!"

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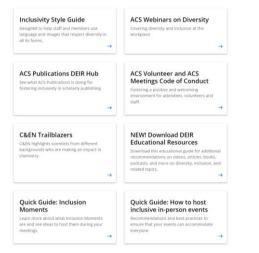


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ACS OFFICE OF DEIR

Advancing ACS' Core Value of Diversity, Equity, Inclusion and Respect

Resources





Diversity, Equity, Inclusion, and Respect **Adapted from definitions from the Ford Foundation Center for Social Justice:

Seeks to ensure fair treatment, equality of opportunity, and fairness in access to information and resources for all. We believe this is only possible in an environment built on respect and dignity. Equity requires the identification and elimination of barriers that have prevented the full participation of some groups.

Equity**

Diversity** The representation of varied identities and differences (race, ethnicity, gender, disability, secual orientation, gender identity, national origin, tribe, caste, socioeconomic status, thinking and communication styles, etc.), collectively and as individuals.ACS seeks to proactively engage, understand, and draw on a varley of perspectives.

Inclusion**

Builds a culture of belonging by actively inviting the contribution and participation of all people. Every person's voice adds value, and ACS strives to create balance in the face of power differences. In addition, no one person can or should be called upon to represent an entire community.

Respect

Ensures that each person is treated with professionalism, integrity, and ethics underpinning all interpersonal interactions.

https://www.acs.org/content/acs/en/about/diversity.html

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www.acs.org/acswebinars





Thurs., Oct. 20, 2022 | 2:00pm-3:15pm ET Creating Psychedelic Analogs to Treat Neuropsychiatric Disease

Co-produced with ACS Division of Medicinal Chemistry, the American Association of Pharmaceutical Scientists, and ACS Publications

Register for Free



Mier., Oct. 26, 2022 | 2:00pm-3:00pm ET

La Electroquímica

Co-produced with Sociedad Química de México and Chemical & Engineering News



Thurs., Oct. 27, 2022 | 2:00pm-3:00pm ET

Addressing Sustainability Challenges with Earth Abundant Metal Catalysis Co-produced with the ACS Office of Sustainable Development and Organometallics

Browse the Upcoming Schedule at www.acs.org/acswebinars













How familiar are you with the publishing process in ACS Journals?

- A) Not Familiar, ex. I have not been published before in any Journals
- B) Not Very Familiar, ex. I have been published in scientific journals, but not an ACS Journal
- C) Familiar, ex. I have been published in ACS Journals before
- D) Very Familiar, ex. I am part of the ACS Publications team

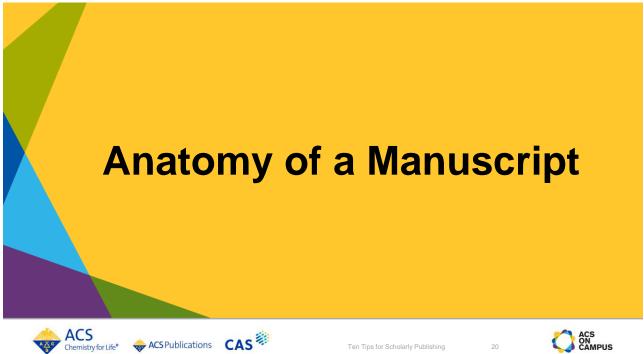
* If your answer differs greatly from the choices above **tell us in the questions window!**

Ten Tips for Scholarly Publishing



♣ ACS Publications CAS

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Ten Tips for Scholarly Publishing

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Chemistry for Life®

ANATOMY OF A MANUSCRIPT

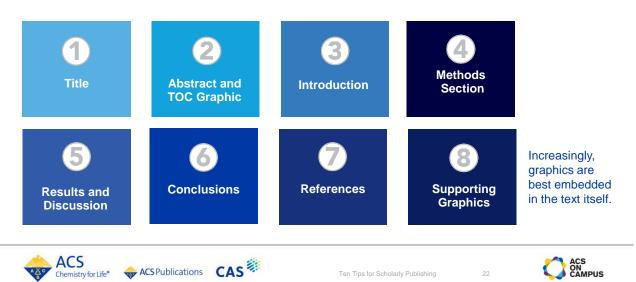
8 Key Components of a Research Article



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ANATOMY OF A MANUSCRIPT

8 Key Components of a Manuscript in ChemEd





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TEN TIPS





Collect data and understand advances



Questions -Why? What? How?

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Organize data by importance, not time



Evaluate need for and create useful figures



Share your outline with coauthors for feedback



Draft the outline as early as possible





Ten Tips for Scholarly Publishing





Choose the Journal Carefully

Tips

- ACS publishes more than 60 journals
- More than 20 ACS journals publish materials science
- To choose the best journal, understand these needs for your manuscript:
 - · Community fit and scope
 - Manuscript type
 - Impact and appeal to audience served
 - Open access needs
 - Related research published





TEN TIPS

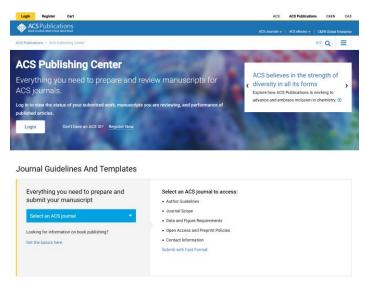
Read and Follow the Guidelines

The journal and ethical guidelines were written to help YOU!

publish.acs.org pubs.acs.org/page/policy/ethics/index.html

For example, Manuscript Types may vary among journals and the guidelines are how to know which type is best for your manuscript.







Ten Tips for Scholarly Publishing



Tell a Story

- 1. Identify your main theme
- Explain why the problem is important (& what related ideas are already known)
- 3. Provide "already known" context via prior literature
- 4. Conclusion should summarize your main message and main advance



- Provide sufficient details in experimental (or methodology) for others to replicate if desired
- 6. Analyze the data thoroughly and objectively
- 7. Include the right balance (or level) of data
- 8. Avoid acronyms, with few exceptions

Ten Tips for Scholarly Publishing



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TEN TIPS

Tell a Story

Avoid common language pitfalls

Imprecise language	Translation
"It has long been known"	I did not look up the reference
"In my experience"	Once
"In many cases"	Twice
"In a series of cases"	Thrice
"It is believed that"	I think
"It is generally believed that"	A few other people think so, too
"Clearly"	Often, not that clear











Draw Graphics with Care

Graphics should help the reader comprehend the story you are trying to tell.



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TEN TIPS

Attract Readers with the Title and TOC Graphic



https://pubs.acs.org/doi/full/10.1021/cm5017917 https://pubs.acs.org/doi/10.1021/acsanm.0c01089



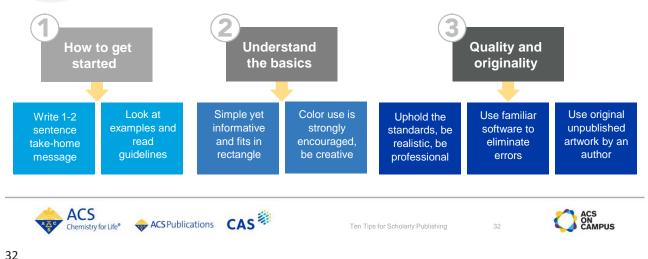


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Attract Readers with the Title and TOC Graphic

Creating your TOC Graphic



EDITORIA TEN TIPS **Recycling Is Not Always Good: The Dangers of Self-Plagiarism Avoid Plagiarism** lagiarism is an act of academic fraud that implies "taking over the ideas, methods, or written words of another, without acknowledgment and with the intention that they be taken as the work of the deceiver." If one "borrows" one's own ideas from one's Plagiarism and related issues own publication(s) without attribution, is the deception still academic fraud? Yes, it is, because it is an intentional attempt to deceive a reader by implying that new information is being presented. Intentional deception is fraud; one of the two definitions of fraud in the Oxford English Dictionary is: Self-plagiarism "a person or thing intended to deceive others, typically by unjustifiably claiming or being credited with omplishments or qualities"2 Concurrent submission As a result, recycling old data as new material (the accomplishment or quality), when it is Prior publication not so, is tantamount to attempting to deceive one's audience. There are a number of serious problems that arise from selfplagiarism that can affect both the scientific community as a whole and individual researchers. Thankfully, much thoughtful consideration has been given to defining, describing, recognizing, and avoiding self-plagiarism.⁴³ A number of sources are given here, but an excellent place to start to explore the concept is with a detailed piece by Miguel Roig on the Office of Research Integrity's Web site.⁶ According to this helpful and scientifically oriented Where can I read more about plagiarism and related issues? https://publicationethics.org/ Source: https://pubs.acs.org/doi/10.1021/nn3000912





Ten Tips for Scholarly Publishing



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Revise, Edit, and Rework

Tips

- A good manuscript goes through many drafts before submission
- Revisions are an important part of the process, and give all authors the time to support and edit the manuscript prior to submission
- "Fresh eyes" later in the revision process can often be quite helpful

Where can I learn more?

https://www.youtube.com/watch?v=q3mrRH2aS98

PUBLISHING YOUR RESEARCH 101

Episode 1 - How to Write a Paper to Communicate Your Research



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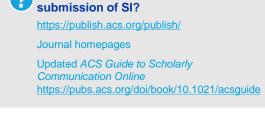
TEN TIPS

Prepare the SI with Care

What goes in the SI?

- Data that further substantiates your claims
- Cross-reference the SI in the main text to provide an easy-to-follow manuscript
- Do add movies and/or photos of experiments to assist readers

Megha Anand and Jens K. Nørskov*	Article Views	Altmetric	Citations
© Cite this: ACS Catal. 2020, 10, 1, 336-345 Publication Date: November 25, 2019 ~ https://doi.org/10.1021/acscatal.9b04323 Copyright © 2019 American Chemical Society RIGHTS & PERMISSIONS	1853	2 BOUT THESE MET	5
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Where can I find journal guidelines for

In Chemistry Education manuscripts, the SI often includes important information for how to implement the educational innovation described in the manuscript

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Write a Clear, Accurate Cover Letter

Tips

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- Address the Editor-in-Chief directly by name
- Include the title of the manuscript and the name of the journal you are submitting to
- Explain why the work is appropriate for the journal's readership
- Include your "take home message" be concise!

The Cover Letter

 Cite this: J. Proteome Res. 2017
Publication Date: January 5, 2017 ~ https://doi.org/10.1021/acs.jproteor
Copyright © 2017 American Chemic
Descript December 2019

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SUBJECTS: Elements, Quality management

Publishing is the principal means by which scientific findings are communicated and confirmed to the broader community. As I half-jokingly remain my lab, rfl is intry published, tolesmit exist, and one product the publication, if you are like most authors, the cover letter is the last step in the process and, unfortunately, often the most rushed and overlooked. Authors who underestimate the value of a strong cover letter often squander an opportunity to delineate the value of their work, which can sometimes determine whether a manuscript is even set for poer review. Before digital submission of manuscripts became the norm, the cover letter was attached to the front of the manuscript so that it was the first document and drow rould read. A typical letter might include the tille of the paper, and, most importantly, information about the importance of the work and its relevance to the readership of the jounal. Since much of the operational information is now provided through checkboxes and other forms in the digital submission process, authors no longer feel compelled to describe the work, making the cover letter more of an afterthought or a place where people relevant the importance.

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Where can I learn more?

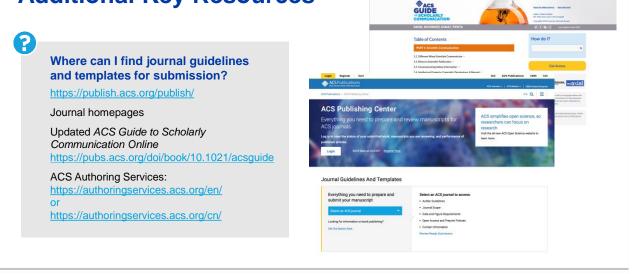
https://pubs.acs.org/doi/10.1021/acs.jproteome.6b01068





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Additional Key Resources

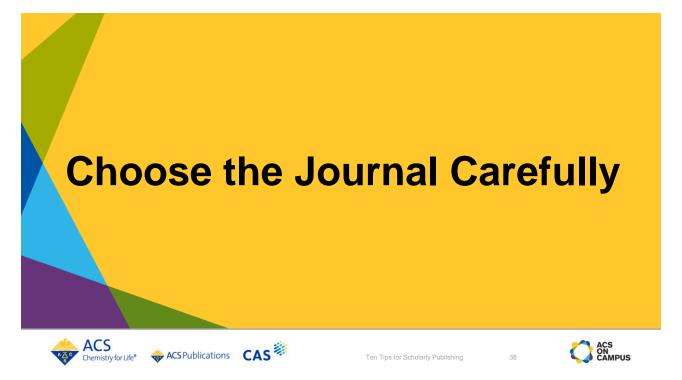






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When am I ready to write a manuscript for J. Med. Chem.?

Ask yourself:

- Does my data "tell a story," or are they merely pieces of information?
- Do the results provide novel insights and advance the field?
- Does it fit the scope of J Med Chem?
- If in doubt, reach out to the Editor-in-Chief directly with presubmission inquiries or any other questions or concerns



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Ten Tips for Scholarly Publishing





What should I write in my J. Med. Chem. manuscript?

- **Title**: As specific as possible.
- Abstract: Brief account of goals and major findings; often written after the draft has been completed. Use a bold TOC graphic to draw attention to your research.
- Introduction: Describe the topic and position your work relative to published studies.
- Methods: Concise and precise.
- Results: Describe your findings.
- **Discussion**: Put your findings again into context; draw conclusions.
- **Concluding remarks:** Another brief summary of the study and its major findings.





Ten Tips for Scholarly Publishing



Myth Busting Perceived Requirements for Publishing with J. Med. Chem.

- Submission Checklist no longer required regular cover letter sufficient.
- Manuscripts can be submitted using the ACS template or as a general Word document.
- Include figures/tables/schemes, etc. in the text, with their location based on text references (not at the end of the document).
- Consider specific requirements for certain manuscript types, such as Drug Annotations (detailed SAR description preferred) and Perspectives (not the same as reviews, provide lessons learned in addition to an overview of a given topic).

Source: Simplifying Submission Requirements for the Journal of Medicinal Chemistry, J. Med. Chem. 2021, 64, 12, 7877-7878.





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Chemistry for Life®

Reasons for Rejection: Overview

INAPPROPRIATE journal

Wrong scope/audience

PREMATURE publication

Conclusions not validated and/or not supported by the data

LACK of novelty

- Reporting routine results
- Reading like a lab report or merely tabulating data
- Duplicating earlier work



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Reasons for Rejection – Manuscript Considerations

FAILURE to include experimental procedures used in the synthesis of target compounds in the Experimental section of the manuscript

Use Supporting Information for routine experimental detail

FAILURE to properly cite literature precedent

INADEQUATE characterization of compounds or materials

UNCLEAR word choice or phrasing

LACK of focus

- Trying to cover too much material
- Presentation of data scattered

MISSING important control experiments

FAILURE to address alternative explanations in cases where conclusion is not supported by data presented in the manuscript

MAKING (unintended) unjustified strong statements



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Ten Tips for Scholarly Publishing



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Reasons for Rejection: J. Med. Chem.

MOLECULAR modifications of reported chemical series not leading to a <u>significantly</u> improved understanding of structure-activity relationships (SAR) <u>OR</u> not utilizing novel chemical or biological approaches.

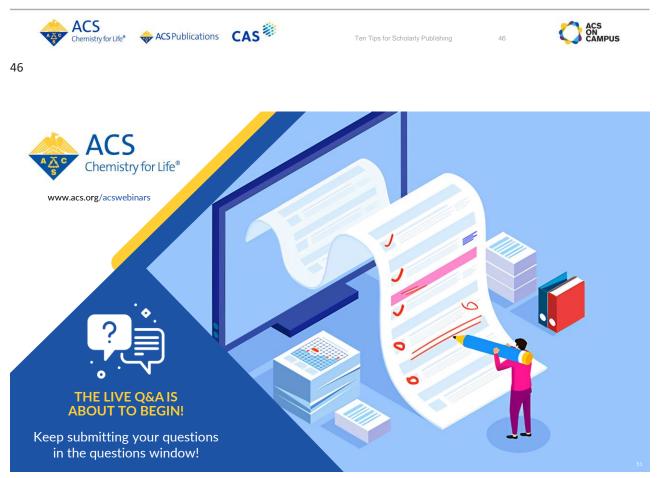
The bar is higher for a known chemical series.

MEDICINAL chemistry rationale behind the synthesis of analogues not developed.

NEW moderately active inhibitors of a well-established drug target.

LIMITED SAR and inclusion of compounds already reported.

MISSING purity statement "All compounds are >95% pure by HPLC." HPLC traces should be included for representative compounds that have in vitro data and for all compounds with in vivo data described in the manuscript. Reasons for any exceptions/exclusions should be explained.



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