Navigating the Publication Process

Journal of Cell Biology

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JCB Journal of Cell Biology

Where to publish? How can I get my work noticed?

Ask yourself

- Who is the main audience and what journals do they read?
- Does my study move the field forward by a huge leap or does it address a longstanding quandary in the field?
- What other researchers working in different fields might be interested in my work?

Journal selection

- Send your paper to the ‘highest profile’ journal (and possibly work your way down)
- Submit to the journal you ‘always’ publish in
- Select a ‘type’ of journal – general vs specialized, society, scientist run vs professional

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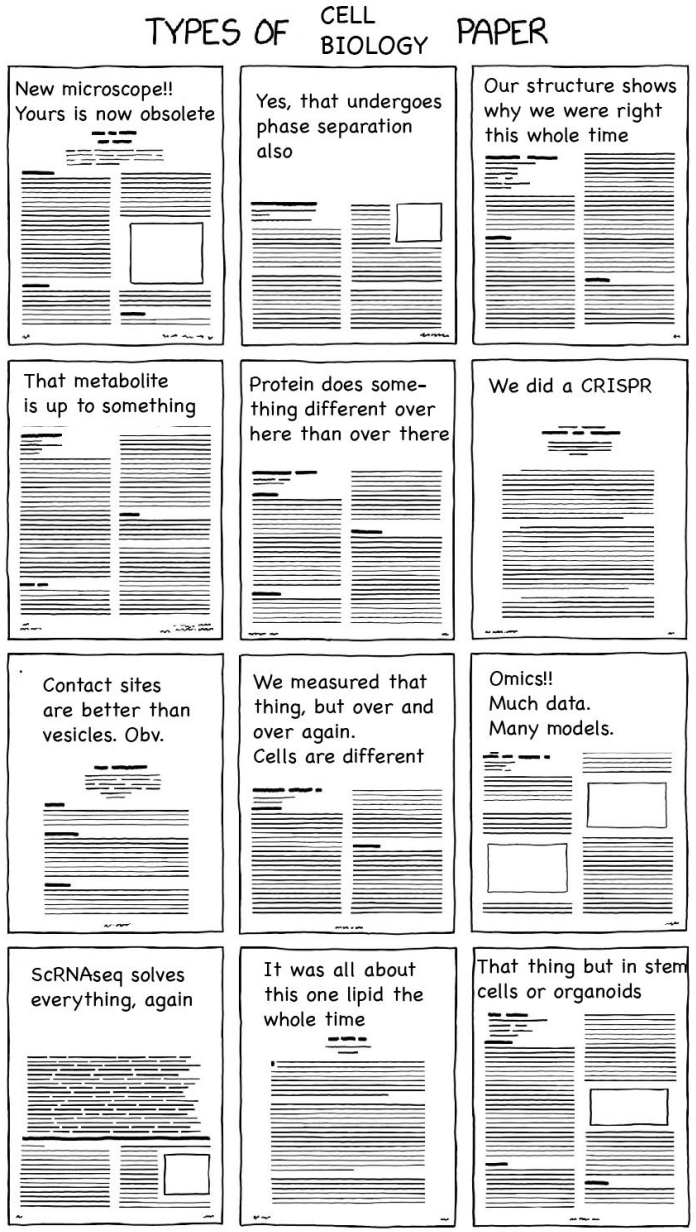

The Editorial Process

Editorial flowchart

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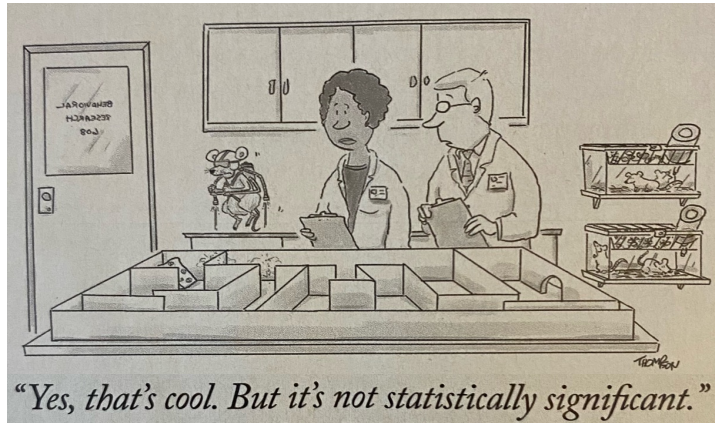
The Editorial Process



What are journal editors looking for?

- Conceptual advance
  - Does the study settle a long-standing debate or unresolved question?
  - Does the paper change the way scientists think about a question?
- Novelty of conclusions
- Strength of conclusions, alternatives ruled out?
- High quality data and technically sound experiments
- Relevance and generality of findings

Are the findings interesting for the journal readership?

Frame your big picture question first, what problem are you trying to solve?

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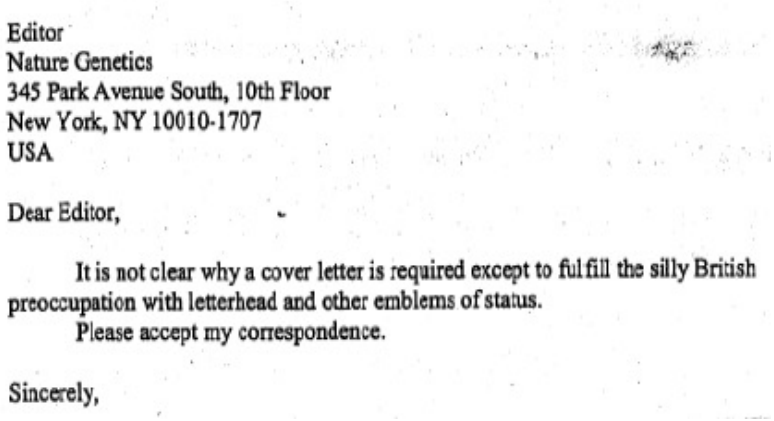
Submission and Review – Cover Letter

Cover letter is helpful to

- Suggest editors, mention any editorial communications
- Suggest reviewers, indicate their expertise
- Exclude referees, indicate why
- Explain any conflicts of interest
- Indicate related papers submitted or in press
- Illustrate why your study is interesting and highlight the novelty of your findings
- Discuss your work in relation to past advances, mention relevant past publications



Editor
Nature Genetics
345 Park Avenue South, 10th Floor
New York, NY 10010-1707
USA

Dear Editor,

It is not clear why a cover letter is required except to fulfill the silly British preoccupation with letterhead and other emblems of status.

Please accept my correspondence.

Sincerely,

Cover letter is an opportunity to summarize and contextualize your findings, convince the editor they are broadly interesting

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Submission and Review – Writing a Scientific Paper

Formatting

- Page numbers are essential, line numbers ideal
- Ensure figure numbers are on the figure
- Plan figure title and legend carefully and provide with the figure
- Provide quality high resolution figures
- Choose a clear font at an appropriate size
- Double check figure labels, content, callouts

"Airplane test"

How easy is reading a PDF of your paper on a laptop?

Writing a Scientific Paper

"If I had more time, I would have written a shorter letter"

- Avoid jargon and highly technical terms, use simple, direct language
- Use active voice
  - 'the lysosome degrades proteins', not '*proteins are degraded by the lysosome*'
- Clearly state cause and effect
- Reduce propositions (of, to) and nominalization
  - glioma cells migrate, insulin resistance
- Use a narrative flow, guide the reader
  - What is the question, why is it interesting
  - How does your data help
  - Emphasize the bottom line of each experiment

Writing a Scientific Paper

Abstract

- Introductory sentences and background
- General problem being addressed, objective of the study
- Summary of main findings and conclusion
- Implications, general perspective

Introduction

- Provide sufficient background information and explanations
- Too many details gives the impression of a niche advance
- Get the reader excited about the problem your research will solve

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Know your audience, respect their time

Abstract Example

N-cadherin dynamically regulates pediatric glioma cell migration in complex environments

Dayoung Kim, James M Olson, and Jonathan A Cooper

https://doi.org/10.1101/2023.04.04.535599

Pediatric high-grade gliomas are highly invasive and essentially incurable. Glioma cells migrate between neurons and glia, along axon tracts, and through extracellular matrix surrounding blood vessels and underlying the pia. Mechanisms that allow adaptation to such complex environments are poorly understood. N-cadherin is highly expressed in pediatric gliomas and associated with shorter survival. We found that inter-cellular homotypic N-cadherin interactions differentially regulate glioma migration according to the microenvironment, stimulating migration on cultured neurons or astrocytes but inhibiting invasion into reconstituted or astrocyte-deposited extracellular matrix. N-cadherin localizes to filamentous connections between migrating leader cells but to epithelial-like junctions between followers. Leader cells have more surface and recycling N-cadherin, increased YAP1/TAZ signaling, and increased proliferation relative to followers. YAP1/TAZ signaling is dynamically regulated as leaders and followers change position, leading to altered N-cadherin levels and organization. Together, the results suggest that pediatric glioma cells adapt to different microenvironments by regulating N-cadherin dynamics and cell-cell contacts.

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Writing a Scientific Paper

Results

- Subheading titles are the take home finding, not a question
- Begin each section with the question the experiments will address
- Provide a detailed explanation of the experiment
- Summarize the conclusion for each section – how did you solve the question?

Discussion

- Recap your discoveries and how they answer the questions
- Contextualize your findings with regards to the field
- Discuss caveats and future directions

Questions about writing a paper?

JCB Journal of Cell Biology
Rockefeller University Press

Peer Review – Selecting Reviewers

We look for referees who are/have

- Technical expertise
- Broad knowledge of the field
- Familiar with the journal and its scope/caliber
- Efficient
- Fair and constructive
- Avoid obvious conflicts of interest

Why are referees anonymous?

- Prevents unobjective reviews
- Reduces opportunities for favor trading
- Helps scientist stay friends
- Editors, not referees, take the ultimate responsibility for decisions

Authors can opt-in to publish editorial decisions and reviews

Peer Review – Author and Reviewer Demographics

Race and ethnicity

What are your **ethnic origins** or ancestry? Please select **ALL** the geographic areas from which your family's ancestors first originated. Note that the below options are regional rather than continental, following the UN geoscheme**:**

- Western Europe (e.g. Greece, Sweden, United Kingdom)
- Eastern Europe (e.g. Hungary, Poland, Russia)
- North Africa (e.g. Egypt, Morocco, Sudan)
- Sub-Saharan Africa (e.g. Kenya, Nigeria, South Africa)
- West Asia / Middle East (e.g. Iran, Israel, Saudi Arabia,)
- South and Southeast Asia (e.g. India, Indonesia, Singapore)
- East and Central Asia (e.g. China, Japan, Uzbekistan)
- Pacific / Oceania (e.g. Australia, Papua New Guinea, Fiji)
- North America (Canada, United States)
- Central America and Caribbean (e.g. Jamaica, Mexico, Panama)
- South America (e.g. Brazil, Chile, Colombia)
- Self describe* *[open text box]*
- Prefer not to disclose

How would you identify yourself in terms of **race**? Please select **ALL** the groups that apply to you:

- Asian or Pacific Islander
- Black
- Hispanic or Latino/a/x
- Indigenous (e.g. North American Indian Navajo, South American Indian Quechua, Aboriginal or Torres Strait Islander)
- Middle Eastern or North African
- White
- Self describe* *[open text box]*
- Prefer not to disclose

Gender identity

With which **gender** do you most identify? Please select **one** option:

- Woman
- Man
- Non-binary or gender diverse
- Prefer not to disclose

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Peer Review – Editorial Decision

Provide authors clear guidance for revisions, or explanation for rejection

- Editors make a decision based on arguments, not counting votes
- Editors decide what is essential for publication in that journal
  - Is data to support the current model needed?
  - Does the paper need to delve further into an aspect?
  - Are some points outside the scope of the current study?
- Editorial letter outlines essential points to address, things that are not required

Peer Review – Revision and Resubmission

We assess if the revised manuscript meets the criteria stipulated for publication

- Ensure all points are appropriately addressed with experimental data as required
- Summarize the main conceptual and experimental concerns, any editorial concerns, and how you have addressed these
- Provide a clear and concise specific response to all reviewer points
- Know when and how to argue with reviewers
- If the editor overruled a reviewer point include this in your response

Questions or clarification needed? Contact the editor to discuss!

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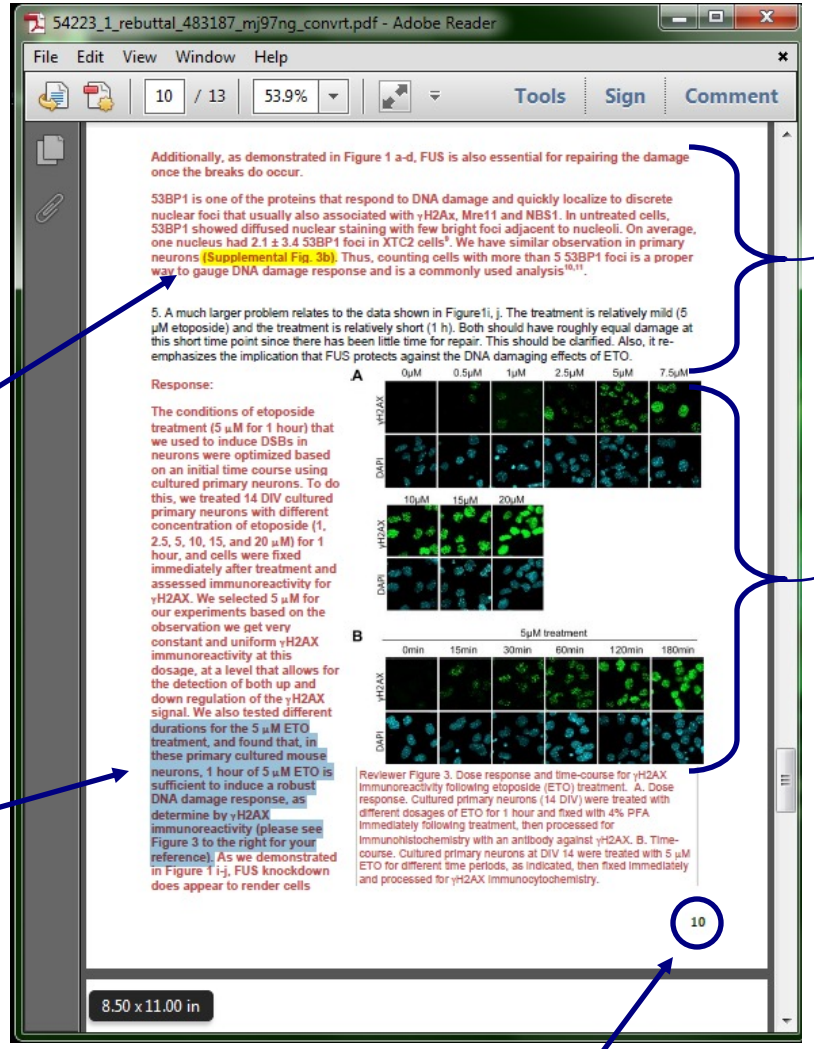
Anatomy of an efficient point-by-point rebuttal letter

Be specific and concise

Added figure is clearly referenced to the main manuscript

Text added to the main paper may be copy-and-pasted



Formatting is used for ease of viewing, clarity, and flow

Additional figures are embedded to the response letter

Page number is clearly noted

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Peer Review – Challenging a Rejection

When is it advisable to appeal

- You feel strongly that the decision was based upon factual errors or a flawed interpretation of your findings
- You believe that you can completely address all criticisms with new data

When is it *not* advisable to appeal

- Rejections based on degree of conceptual advance are difficult to overturn

This paper certainly fits the scope of Science, given the highly novel and unexpected concept

Conceptually, this proposed model goes against almost everything we know

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Peer Review – Successful appeal strategies

Making your case

- Note clearly and concisely the key components of your paper (novelty and importance)
- Provide a scientific argument for any disagreements or misunderstanding
- Substantiate your arguments with references and data if available

New data

- List any new data or planned experiments that would be included in the revised manuscript and the issue(s) specifically addressed

Don't

- Accuse the referees of being unfair, guesses at their identity, personal or professional attacks, 'endorsements' that so-and-so loves your paper, immediate escalation to the editor-in-chief, insult the handling editors

Rigor and Reproducibility

Detecting Fraud

- Plagiarism – software screens for similar text
- Image analysis – screen for duplications and evidence of manipulation
- Raw data – stored by authors and available upon request, published as supplemental information, available in repositories (FigShare, DRYAD, Zenodo)

Reporting

- Materials and methods – full experimental details, reagent information (concentration used, source, catalogue #, RRID) and validation (antibodies), equipment information
- Author information – ORCID iD, contact person
- Statistical information, sample size, replicates, randomization, blinding
- Ethical compliance for human and animal studies
- Data deposition – genetic, proteomic, structural, metabolomics, computational

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Role for journals in ensuring quality and accuracy in scientific publications


JEM
Journal of
Experimental
Medicine


JGP
Journal of
General
Physiology


Rockefeller
University
Press


JCB
Journal of
Cell Biology


Life Science Alliance

Level of Advance

To warrant publication in JCB, a manuscript must provide *novel* and *significant insight* into a *cellular function or process*. Insights may be significant because they are of great interest to a subset of cell biologists or because they offer an advance that is of intrinsic interest to a broad cell biological audience.

Articles present a comprehensive analysis providing novel and significant mechanistic insight into an area of interest to our general readership.

Reports offer definitive observations of outstanding interest that have the potential to open up new avenues of research.

Novelty? Mechanism? Significant insight into a cellular function?

- Identify and characterize a phosphoregulation between two proteins known to regulate membrane trafficking
- Describe that a signaling response impacts a membrane trafficking step
- Describe and characterize that a signaling response regulates a membrane trafficking step via modulation of a novel phosphoregulation site as a functional feedback mechanism

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JCB Initiatives

Facilitating Submission

- Format neutral for initial submission – upload a single PDF in any format
- Direct upload from bioRxiv
- Transfer papers quickly and easily between RUP Journals
- Direct transfer to our sister journal Life Science Alliance
  - Pre- or post-review, with a decision from their editors
- Direct transfer pre- or post-review to Journal of Cell Science or Molecular Biology of the Cell
- JCB accepts external transfers from any journal
- JCB will transfer reviewer reports (and identities when permitted) to external journals
- Part of Review Commons

JCB Life Science Alliance MBoC Journal of Cell Science Review COMMONS

JCB Initiatives – Open Transfer Policy

Transferring your Paper to JCB

- Send us your manuscript, revisions, all anonymized reviewer reports, editorial decision letters, and rebuttal letters
- Avoid more rounds of reviews and revisions
- Paper will be assessed by two of our academic editors
- Authors provided with a clear decision on a path to publication or reason why the work is not suitable

Submit articles reviewed at Review Commons

Provided rapid publication to works previously considered at Nature, Science, Cell, Molecular Cell, Nature Cell Biology, Nature Communications, Science Advances, Cell Metabolism, eLife, Developmental Cell, Cell Stem Cell, Neuron, Cell Systems, Cancer Research, Nature Nanotechnology, Nature Chemical Biology, Nature Structural and Molecular Biology

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Where to publish? How can I get my work noticed?

Features of JCB

- JCB is well-respected and has been serving the field of Cell Biology for almost 70 years
- Publishes studies of exceptional quality and technical rigor
- 'Hybrid' editorial model – both professional scientific editors and academic monitoring editors
- Provide authors with fair editorial decisions and specific guidance on revisions
- Clear and firm criteria for revisions and re-review
- Avoid multiple rounds of review and revision
- Format neutral, Open transfer policy
- Novelty protection from initial submission
- ~20-25% papers have an accompanying Spotlight

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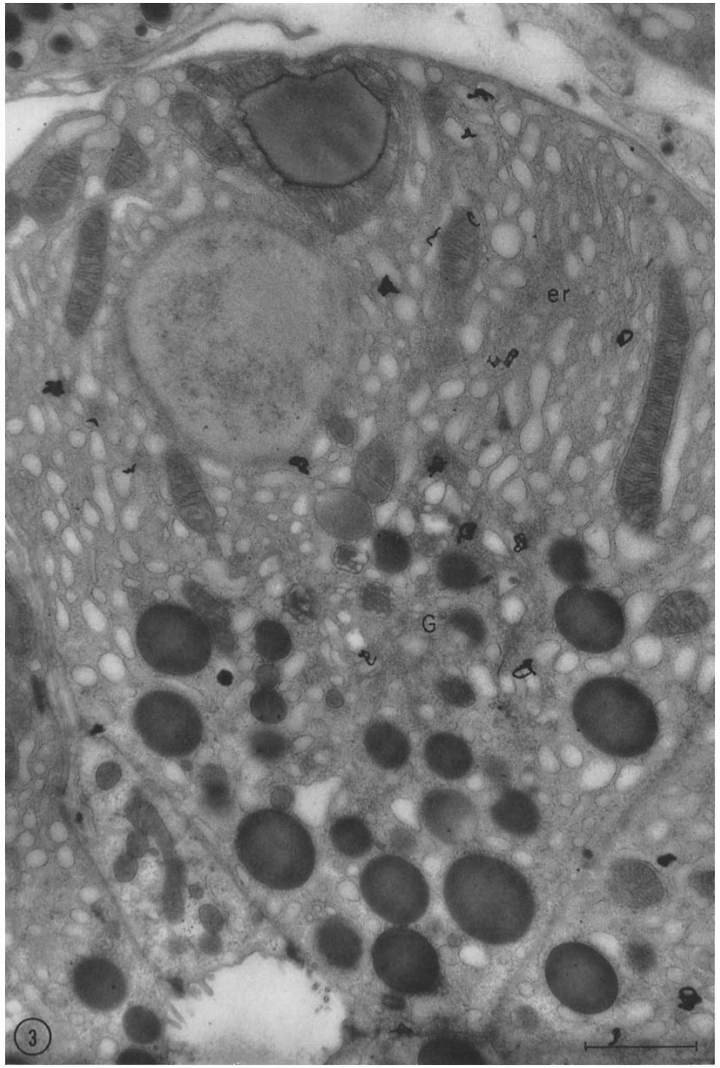
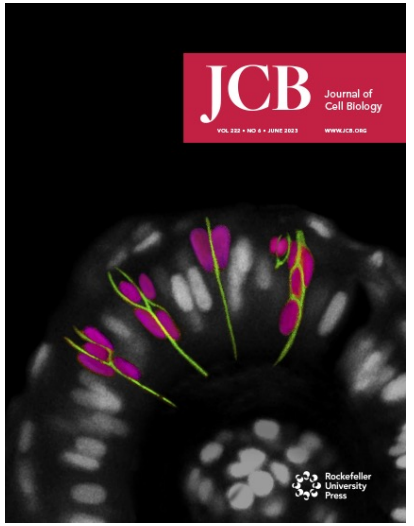


L. G. CARO AND G. E. PALADE
Protein Synthesis in Pancreatic Exocrine Cell
Journal of Cell Biology 1964

The Editorial Process

Rough Statistics at JCB

- >90-100 new submissions per month
- ~70% of submissions are returned without peer-review
- ~30% are sent out for peer-review, typically to 3 referees
- ~60% of peer reviewed papers are invited to revise and resubmit
- ~96% of invited revisions are eventually published



Timing

- Editorial decision ~3-7 days
- Reviewers asked to return reviews in 14 days…
- Reviewer collaboration and editorial decision ~3-5 days
- Strive to get decisions in one month or less
- Ask revision be completed in 3-4 months

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Presubmission Inquiries

Ask an Editor if your paper is potentially appropriate for JCB

- Submit an abstract and short description
- Spell out exactly what experiments an editor can expect
- Summarize conceptual advances accurately
- Cite key papers
- Do not oversell

Our goal with a presubmission inquiry is to give you our best impression on if JCB is suitable and if not to not waste your time. Therefore, we try to give honest feedback. We only make a final decision after reading the full paper and discussing with an academic editor.


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