Editor’s Guide to Writing and Publishing Your Paper

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Today’s Topics

- Choosing the Right Journal
- Manuscript Preparation
- Authorship
- Cover Letter
- Suggesting and Excluding Referees
- Peer Review
- Common Reasons for Rejection
- Strategies for Revision and Resubmission
- Appealing a Negative Decision
Choosing the Right Journal

- Read the Journal’s “Scope” statement
- Send a *Presubmission Inquiry* to the Editors
- Ask the advice of well-published colleagues
- What journals do you read in your field?
- Consider:
  - Impact Factor (i.e., Number of times articles published in 2011–2012 were cited in 2013)
  - Rejection rate
  - Review period (Race to publish?)
  - Time from acceptance to publication
  - Advance online publication
  - Online and print circulation
Manuscript Preparation

Consult Journal’s specific guidelines

IN GENERAL

- Follow Journal’s guidelines
- Write simple, direct, and logical sentences
- Define technical terms, acronyms, and abbreviations at first use
- Avoid jargon

Proofread, proofread, proofread!
Manuscript Preparation

METHODS & RESULTS

- Write these sections first
- Provide sufficient details of all protocols (must be reproducible)
- Be sure to indicate:
  - $n$ values
  - Magnification
  - Statistical analyses
  - IACUC/IRB approval
  - Statement of informed consent
  - Source of all reagents (no trade names)
  - Use “significantly” only when statistics support the statement
  - Consult a statistician
**METHODS & RESULTS**

- Quantitate histology and blots
- Limit number of figure panels; Use representative images
- Make use of Supplementary Data section
- Employ tables
- Ensure legends sufficiently describe the figures
- Don’t force associations (see example)!
- Don’t use lightening bolts, skulls, and crossbones in figures
Manuscript Preparation

DISCUSSION

- Difficult to write
- Often too long and verbose
- State your main conclusion first (answer research question posed in the Introduction)
- Discuss your Results in broad context of existing knowledge
- Don’t overinflate findings; reasonable speculation
- Address any inconsistencies or limitations
- Outline direction of future studies

INTRODUCTION

- Write this section (and Abstract) last
- Provide key background information: What is known and unknown
- Establish the question your study endeavors to answer
- Briefly outline experimental approach
- Briefly preview your Results in the last paragraph
- Establish significance of the study
Manuscript Preparation

ABSTRACT

- Begin with a sentence that frames the work and the question you set out to answer (established facts = present tense)
- Move on to the major findings (new findings = past tense)
- Few sentences to detail the experimental approach and the new mechanism identified
- Be sure to indicate the system/species studied
- End with a sentence indicating the implications of the findings (don’t overinflate conclusions)
Adrenergic modulation of focal adhesion kinase protects human ovarian cancer cells from anoikis

ABSTRACT

Chronic stress is associated with hormonal changes that are known to affect multiple systems, including the immune and endocrine systems, but the effects of stress on cancer growth and progression are not fully understood. Here, we demonstrate that human ovarian cancer cells exposed to either norepinephrine or epinephrine exhibit lower levels of anoikis, the process by which cells enter apoptosis when separated from ECM and neighboring cells. In an orthotopic mouse model of human ovarian cancer, restraint stress and the associated increases in norepinephrine and epinephrine protected the tumor cells from anoikis and promoted their growth by activating focal adhesion kinase (FAK). These effects involved phosphorylation of FAK\textsuperscript{Y397}, which was itself associated with actin-dependent Src interaction with membrane-associated FAK. Importantly, in human ovarian cancer patients, behavioral states related to greater adrenergic activity were associated with higher levels of pFAK\textsuperscript{Y397}, which was in turn linked to substantially accelerated mortality. These data suggest that FAK modulation by stress hormones, especially norepinephrine and epinephrine, can contribute to tumor progression in patients with ovarian cancer and may point to potential new therapeutic targets for cancer management.

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Activated macrophages are essential in a murine model of T cell–mediated chronic psoriasis

 Versus

Up-regulation of IL-7, stromal-derived factor-1α, thymus-expressed chemokine, and secondary lymphoid tissue chemokine gene expression in stromal cells in response to depletion: implication for thymus “reconstitution”
Authorship

- No universal system

- Openly discuss at the beginning of and throughout the project
  - Who will be responsible for the writing and making revisions?

- An Author must **substantially** contribute to\(^1\):
  - Project conception and design
  - Data acquisition
  - Data analysis and interpretation
  - Manuscript drafting, review, and revision
  - Critical intellectual content
  - Approval of manuscript for publication

\(^1\) International Committee of Medical Journal Editors
Authorship

Acknowledgement, NOT authorship, is warranted for individuals who provided:

- Encouragement or advice
- Research space
- Financial or administrative support
- Published Reagents
- Occasional data collection or analyses
- Occasional patient material
- Medical writer

\(^2\) US National Institutes of Health
Authorship

- List authors in **descending order** of contribution
  - Lead Author provided greatest contribution to project
  - Shared first authorship?
  - Senior Author/Principal Investigator/Project leader/Supervisor customarily listed last
  - All authors must agree on order of authorship

- No honorary authorship
  (e.g., other lab members not involved in project)

- Authorship = Responsibility
  (Authors receive the credit AND the blame)

- Some journals welcome specification of author contributions

- Journals will not mediate authorship disputes ➔ Seek institutional oversight
Cover Letter

- Make an impression
- Consult Journal guidelines
- Generally 4-5 paragraphs
- Introduction to topic and MAJOR findings
- Place findings in broad context
- Important and Novel
- Why appropriate for that Journal

Proofread carefully!
Cover Letter

- Address Editor by name
- Title of manuscript
- List of authors and affiliations
- Corresponding author
- Type of article (e.g., case report, research, review, letter, short report)
- Solicited by Editors? Remind them
- Manuscript approved by all authors
- Not previously published
- Not currently submitted elsewhere
- IACUC/IRB approval for animal or human studies
- Permission to cite unpublished observations of others
- Contact information for 3-5 Referees
- Request to exclude any Referees
- Declare conflicts of interest
Suggesting Referees

- Option to suggest and exclude potential Referees
- You may be equally or better placed than the Editors to know who is qualified to evaluate and recognize the impact of your work

**DO suggest:**
- Established investigators in field
- Appropriate technical expertise

**DON’T suggest:**
- Researchers in your Department, Institution, or Company
- Friends, recent co-authors or collaborators
- Individuals listed in the Acknowledgements
Requests to Exclude Referees

- There are valid reasons for keeping sensitive results confidential

“Due to a conflict of interest, we request that XXX be excluded from reviewing this manuscript.”

“As the group led by XXX are competitors in this area, we request that individuals from this group be excluded from reviewing this manuscript.”

Do exclude:

- Competitors
- Individuals with a known bias
- Beware of conflicts of interest, financial or otherwise

DON’T exclude:

- More than 5 people
- Everyone in your field
- Entire institutions
How Editors Choose Referees

- Authors of your most relevant references
- Technical expertise and broad knowledge of the field
- Experience publishing in that field
- Efficient, fair-minded, and constructive
- Familiar with quality of articles published in that journal
- Consider author suggestions and requested exclusions
- No known Conflicts of Interest
Most scientists regarded the new streamlined peer-review process as ‘quite an improvement.’
Peer Review

3,537 articles (Year 2009)
Evaluated by Editorial Board

30% External Review

30% Revise and Resubmit

70% Rejected

70% Rejected

Appeal Decision

Accepted

Rejected again

60 appeals/year
Few decisions are overturned

350 articles/year
Decisions

- Very few papers are accepted upon initial submission
- Don’t be discouraged – even Nobel Laureates get rejection letters
- Don’t take a rejection letter personally
- Determine if you can revise and resubmit
Common Reasons for Rejection

- Not a high priority compared to other submissions under consideration
- Fundamentally flawed
- Hypothesis or data is not novel
- Descriptive (e.g., just a new knockout mouse; learn nothing new about physiology or disease)
- No new mechanistic insight
- Incremental advance
- Correlative; not causal
Common Reasons for Rejection

- Lack of appropriate controls
- Insufficient backcrossing of animals
- Experimental model does not mimic human disease
- No \textit{in vivo} data
- Inappropriate or absent statistical analysis
- Too small a study sample
- Overinterpretation of data
- Single case report
- Not appropriate for journal’s audience
- Poorly written – Consult a professional medical editor
If you choose to submit ELSEWHERE

- Did you send it to the wrong journal?
- Carefully consider your second choice *(change Cover Letter!)*
- Recognize and fix major flaws before submitting
- Make effort to incorporate referee suggestions
- **WHY?** The same referee may be asked to review your paper again

Peer review should help you improve the paper
Strategies for Revision and Resubmission

- Endeavor to do so within 3-6 months
- REMEMBER: Hasty revisions are likely to be rejected
- Address the major issues with substantial revisions
  - Conduct all of the requested new experiments
  - Revise the text and figures as necessary
  - Ask Editors for guidance if an experiment is not possible
- Check novelty of your results prior to resubmission – were you scooped?
- Prepare a point-by-point response to referee comments
Preparing a Point-By-Point Response

- Be polite and respectful
- Thank referees for their comments
- Clearly outline how you have addressed every criticism
- Cannot fulfill a referee suggestion/request? Offer a valid reason why experiment is not possible or beyond the scope of the paper
Comment 2:
Moreover, 14.7K is studied in the context of an isolated viral gene, not in the context of virus infection so it is again not clear if 14.7K cooperates with other viral genes in the blockade of TNF signaling.

Reply 2:
See reply 1 (3) above: using two adenovirus mutants, we show that in the absence of both E1B19K and E3-14.7K no other E3-encoded protein was able to protect H1299 cells from TNF-mediated apoptosis (see new figure 10) and that the mechanisms of TNF resistance in adenovirus wild-type infected human cells are identical to those in mouse and human cells transduced with isolated 14.7K (inhibition of TNF receptor internalization, prevention of DISC-formation and rab5 and dynamin-2 recruitment, see new Figures 11,12).
Appealing a Negative Decision

- Put the decision letter away for at least 24 hours
- Determine if an appeal is appropriate
  - Have the Editors and/or Referees misunderstood your point?
  - Can you easily perform experiments to address the criticisms?
- Editors and Referees are only human; they do make mistakes
- All Journals consider appeals, but few decisions are overturned
Appealing a Negative Decision

What helps?

- Be professional and polite, even if you disagree
- Offer to add new data
- Point out if Editors or Referees made any factual errors
- Rebut the decision based on scientific facts
- Provide evidence if you feel a Referee is biased
- Request an additional opinion
Appealing a Negative Decision

What DOESN’T help?

- Don’t guess at Referee identities
- “Referees are unfair”
- Celebrity endorsements
- Cosmetic rewriting of the paper
- Bragging about your reputation
- “You published an even worse paper”
- Inflammatory language
- Calling the Editors or Referees idiots
- Bribes or threats
- Hitting “Reply” instead of “Forward” *(although entertaining to the Editors!)*
Parting Thoughts

- Work hard and be patient
- Keep data organized, labeled, and electronically archived at high resolution and in multiple locations
- Read the literature broadly – go to seminars and journal clubs; Keep up with your field
- Don’t manipulate your data
- Pester your mentors:
  - Ask to meet with speakers at conferences
  - Help review manuscripts and prepare grants
  - Volunteer to give talks about your work
  - Volunteer to write for campus magazines or newsletters
Editor’s Guide to Writing and Publishing Your Paper

Take an inside look into the editorial review process and how to best present the results of your work, from selecting the right journal and common reasons for rejection, to dealing with the revision and resubmission process.

Read it now at: www.nyas.org/SciencePublishing-eB