Insights into the manuscript review process: How you will be evaluated?

Marc S. Mendonca, Ph.D.
Editor-in-Chief
Radiation Research

Judy E. Fye
Managing Editor
Radiation Research
1) Pick a Scientific Topic

Experiments whose results cause sweeping scientific paradigm shifts are very, very rare. (Sorry)

The vast majority of experiments answer small (focused), specific questions.

Science is built upon the accumulation of data from countless experiments.

Pick a topic or an unanswered question with a small, testable scope.
Deep Dive Into the Literature

How to begin?

• Actively read a book(s) that surveys the entire field that can act as a jumping-off point

• Talk to people (e.g. your advisor, postdocs) who are well-versed in the field and get their suggestions for what to look at

• Use technology… Find all-around resources like Wikipedia and use those as jumping-off points

• For academic reading, focus on reading review articles which summarize findings

GO TO SEMINARS!!!!!
Deep Dive Into the Literature

You should be reading on a regular basis!

Carefully read one paper every day!!
Deep Dive Into the Literature

Read the primary literature in your area of interest

Start with papers that have high impact/citation numbers

Read “deeply” i.e. the older literature!!

Find the “original” papers in your area of interest. (these are frequently not the highly cited papers)

Read technique papers!!!!
5) Record your data and procedures

Record “all” your data and procedures immediately into your lab book. (outliers too)

Repeat experiments, three to five times. Quantitate your endpoints, calculate means ± s.d. Use appropriate statistical methods to test for significance.

If appropriate, plot your data (look for visual trends)

Plot trend lines, best fit curves, etc.
6) Analyze data from each experiment, organize and state your results, develop your conclusions.

Was your hypothesis correct?

Were there observable trends in the data?

Were there any unexpected data or trends?

Do you have unanswered questions that can be the basis of future experiments?

Write up your results into a meeting abstract and build a poster or talk at a meeting.

Write up a draft of your paper.
CONTROLS = SCIENTIFIC RIGOR

VET YOUR REAGENTS

ARE YOUR CELLS WHAT YOU THINK THEY ARE?

ARE YOUR VECTORS, PROBES, & ANTIBODIES WHAT YOU THINK THEY ARE?
Submit and publish your best stuff in:

Radiation Research
The peer review process for journal publication is essentially a quality control mechanism. It is a process by which experts evaluate scholarly works, and its objective is to ensure a high quality of published science.
The Process

Does the manuscript fit the journal’s scope and aim and will it be of interest to the readership?

Is the manuscript of minimum acceptable quality? Is the content and writing good enough to make it worth reviewing?

Is the manuscript compliant with the journal’s instructions for authors?
Prescreening of Manuscripts

<table>
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<tr>
<th>Sections</th>
<th>Elements</th>
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<tr>
<td>COVER PAGE</td>
<td>You will need to INCLUDE the article title, author names and affiliations, and a proposed running title not exceeding 50 characters including letters and spaces. The corresponding author should be identified, and complete contact information should be provided in a footnote. Formatting tip: UNSURE of the journal's formatting requirement, guidelines are always published online.</td>
</tr>
<tr>
<td>ABSTRACT PAGE</td>
<td>Here is where you summarize the MAIN FINDINGS AND CONCLUSIONS of your manuscript. Formatting tip: Do not add citations and avoid using acronyms/abbreviations.</td>
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<td>INTRODUCTION</td>
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<td>MATERIALS AND METHODS</td>
<td>Here is where you explain HOW your research was done. Formatting tip: Include the Manufacturer's name and location, i.e. (Precision X-Ray, North Branford, CT).</td>
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Note. Radiation Research Information for authors; [https://radiatres.allentrack.net/letters/RARE_Info_for_Authors.pdf](https://radiatres.allentrack.net/letters/RARE_Info_for_Authors.pdf)
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Really bad mentoring

No, no, if you make the paper too easy to read, everyone will know how you got the results!
Prescreening of Manuscripts

Does the manuscript fit the journal’s scope and will it be of interest to the readers!

Is the manuscript of acceptable quality? Is the content and writing good enough to make it worth reviewing?

Is the manuscript compliant with the journal’s instructions for authors?
Prescreening: The Next Level

Editor-in-Chief and Senior Editor reads the manuscript

YES
Associate Editor assigned
Reviewers assigned

NO
Triage with a few comments
Senior/Associate Editors and Reviewers
Senior/Associate Editors and Reviewers

They are all volunteers!!
303 new manuscripts were received from 37 countries:
  96 papers (32%) from North America
  45 papers (15%) from greater EU + Eastern Europe + Russia
  112 papers (37%) from Asia & Australia (China, Japan, South Korea)
  20 papers (7%) from Middle East & India

209 revised manuscripts were also received
512 total manuscripts were received and reviewed!
Radiation Research Society
Published 158 Manuscripts and 1,488 Pages

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Thank you to our Senior Editors, Associate Editors, Statistical Consultant and 324 different reviewers who performed 815 reviews from September 2017 to September 2018!

Thanks to Pam Sykes (Australia) and M.K. Schubauer-Berigan (NISOH) for their service as Associate Editors!
Welcome to new AE Benjamin Blyth (Australia)
Associate Editor and Reviewer Statistics

- Average number of new manuscripts received per month: 23.11 manuscripts/month
- Average days from date received to first associate editor request: 4.07 days
- Average days from date received to first associate editor secured: 4.11 days
- Average days from date received to first reviewer secured: 10.30 days
- Average days from date received to final reviewer secured: 15.36 days
- Average days from date received to first decision: 23.47 days
https://janikiink.com/2017/10/10/top-8-ways-to-facilitate-professional-editing-of-your-scientific-manuscript/
Peer-review: Where papers go to die!

Photo credit: http://deducelife.com/death-is-only-the-beginning/
THE FIVE STAGES OF PEER REVIEW

DENIAL
Reviewer 3: I do not find this version of the manuscript acceptable.

ANGER
What?! That @!# Reviewer 3!

BARGAINING
Response to Reviewer?
We have performed 7 of the 21 additional experiments that Reviewer 3 asked for.

DEPRESSION
Send/Receive Email
This paper is doomed...

ACCEPTANCE
We are pleased to inform you...

XYKADEN1GZ 2014
Responding to the review of your manuscript

Try to do between 80% to 100% of what the reviewers have suggested?
Responding to the review of your manuscript

Try to do some where between 80% to 100% of what the reviewers have suggested?

Do not argue with the reviewers…….
Responding to the review of your manuscript

Try to do some where between 80% to 100% of what the reviewers have suggested?

Do not argue with the reviewers……. UNLESS- They are asking for 2 years of additional work and it will not be possible to do with current funding, technology, before I graduate or end my postdoc and will be thrown out of my lab!
Responding to the review of your manuscript

Always contact the Editor-in-Chief and discuss a strategy!