

# Writing for the referee

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# Outline of presentation

- What referees are looking for.
- Suggestions on how to write a grant/ paper with the referee in mind.
- Grant applications: reasons for failure.





# The importance of convincing the referees

- Referees largely decide the fate of your paper/ application
- They will be experts in your field
- They will be objective
- Their comments will improve your work





# What a journal referee will be asked

- Is the subject in this article worthy of investigation?
- Is the information new?
- Are the conclusions supported by the data?





# What a funding agency referee will be asked

- Is the topic worthy of investigation?
- Are there clear underlying hypotheses?
- Are the methods proposed appropriate to test these hypotheses?
- Can the applicant perform the proposed work?
- Will this work result in a (significant) contribution to the field?



2006 Ig Nobel prize in Nutrition to W.Al-Houty and F.Al-Musalam for 'Dung preference of the dung beetle *Scarabaeus cristatus* Fab (Coleoptera-Scarabaeidae from Kuwait'. *J. Arid Environ.* (1997) 35: 511-516



# Ask yourself these questions

- Who will read this and why?
- What are the main claims and are they significant?
- Are the claims novel?
- Are the claims convincing?
- Is further evidence required?
- Are the claims discussed appropriately in the context of previous literature?



# A REAL-LIFE EXAMPLE

## Review for the *Journal of Cell Science*

Journal of  
**Cell Science**

Home Author Area **Reviewer Area** Personal Info. JCS Home Sign Out

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### Submit Your Review

Choose "Save" below if you are not ready to submit the entire review. You may return later to complete the review and submit it.

This is the complete review submission form. You may use the jumplist below, or the navigation tool at the far left edge of the screen, to visit specific areas of the form. **Please be assured that all reviewer's comments are confidential.**

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ABC

## Comments for the Author (required)

**Enter your comments for the AUTHOR or upload them below (please do not insert comments below AND upload).**

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### Or, upload your comments for the author:

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# THE BIG QUESTION!

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## Recommendation:

Publish

Don't Publish

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**Recommendation:**

- Publish  
 Don't Publish

**Priority**

- High  
 Medium  
 Low

Reviewer willing to re-review?

- Yes  
 No

Colour figures: are they necessary?

- Yes  
 No

Is the title appropriate? (If no, please suggest new title in the comment section)

- Yes  
 No

**Revisions**

- None  
 Minor  
 Major

Extensive rewriting required?

- Yes  
 No

Is the manuscript too long?

- Yes  
 No

If movies were submitted with the manuscript are they necessary?

- Yes  
 No

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### Recommendation:

Publish

Don't Publish

Too descriptive:  Scientifically flawed:  Insufficient general interest:

Too preliminary:  Not appropriate for JCS:  Insufficient advance:



Make the reviewers say  
'Yes'



## Do...

- Help the reviewers: write clearly, explain your objectives and findings in each paragraph, point out controls.
- Don't hesitate to spell things out!
- Highlight and discuss difficulties/inconsistencies. They won't miss them!
- Get other people to read your MS./ application for **clarity**.





# Do the obvious stuff right!

- Comply with journal format!
- Eradicate typos and mis-spellings.
- Check gene names, chemicals, etc.
- Ensure Tables and Figures are fully-labelled (scale bars, markers etc.) and described in the legends.
- Ensure quality of the Figures is high enough to allow the referees assess them.
- Sloppy presentation may suggest sloppy experiments!





# How to write for the referee



# A (possibly) useful approach...

- The order in which sections of a scientific manuscript are written can be the best single method for achieving success
- The sections of a paper or a grant application should not be written in the order that they are presented!



# Writing a research paper

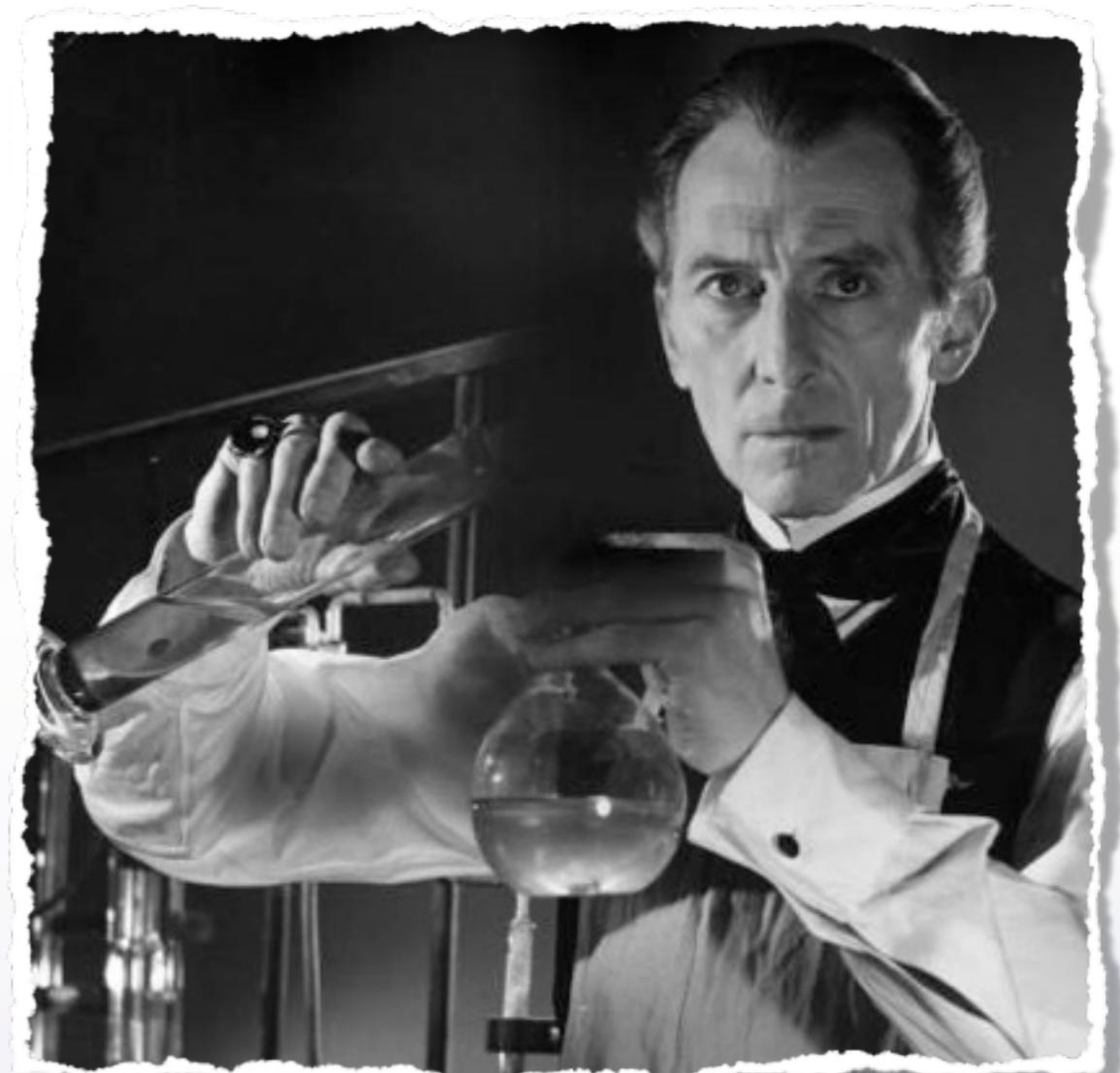
- 1. Results
- 2. Materials and Methods
- 3. Discussion
- 4. Introduction
- 5. Abstract





# Writing a grant application

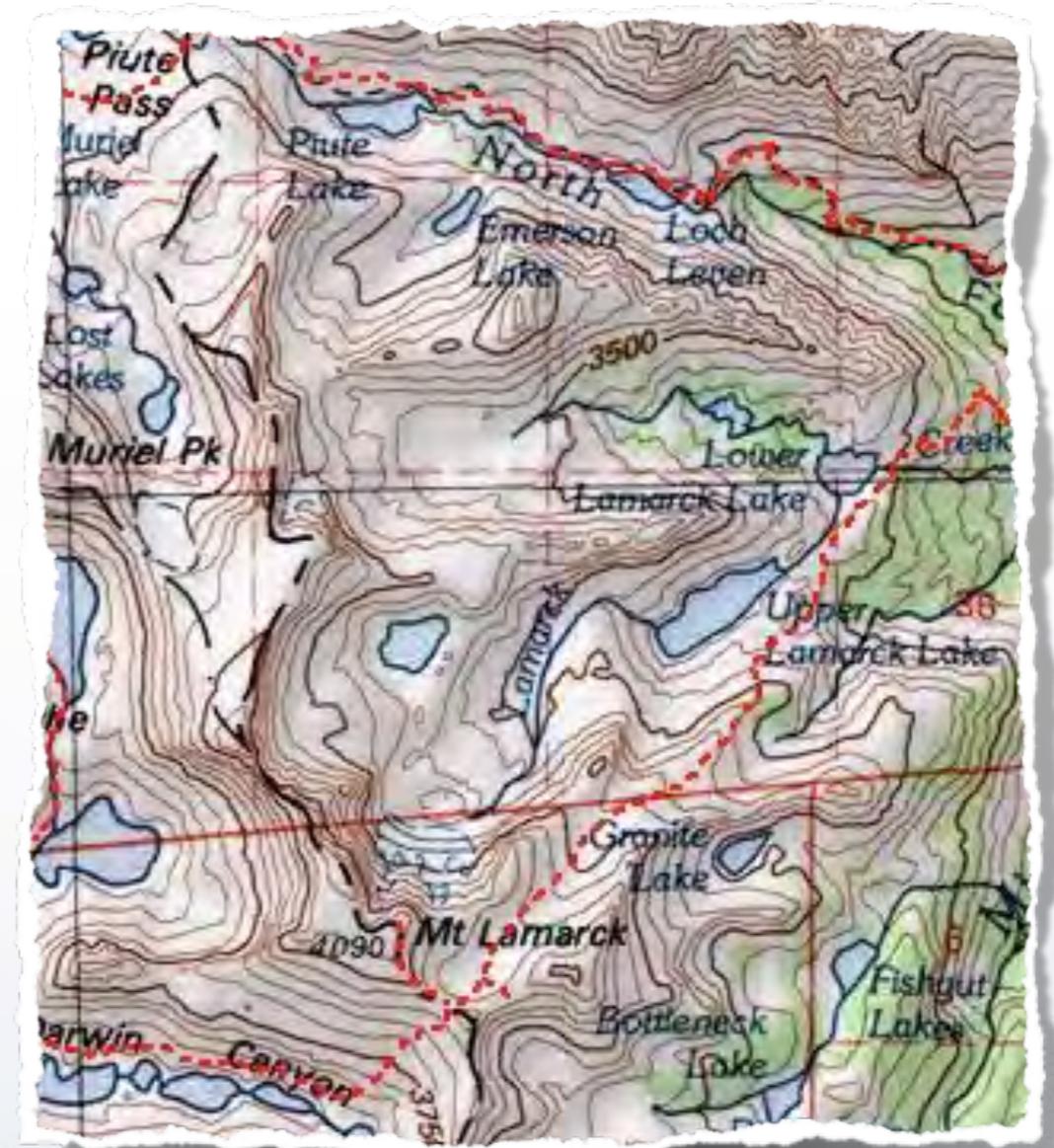
- Objectives (hypotheses being tested)
- Proposed work and methodology (\*Preliminary data\*)
- Introduction and background-reasons for the work
- Summary





# The results section...Guide the reader

- Divide into paragraphs describing each Figure and then approach each section:
- One-line introduction to the experimental question
- Description of the aims of the work
- Description of the methodology
- Description of the findings
- (Brief) explanation of the findings





# Proposed work/ Methodology

- Divide into paragraphs describing each research strand and then approach each section:
- Description of the goals of the work
- Succinct description of the methodology- ‘to test hypothesis X, we will perform experiment Y’
- Description of expected findings and how these will be interpreted and extended
- Discuss potential problems and how you will deal with them
- Demonstrate that YOU can do this work!



Dolly



# Materials and methods

- A professional approach can help convince of the quality of the experiments (and may identify weaknesses)
- Reference as much as possible, while providing some details (e.g., 'Protein content was analysed using immunoblot as described by Smith et al.', **not** 'protein content was analysed as described by Smith et al.)
- Provide **detailed** descriptions of non-standard procedures- referees can be surprisingly picky
- Your work will be continued/ repeated and **YOU** may want to do this!





# Discussion- convince the reviewers of your findings!

- Be balanced and do not overinterpret your results
- Discuss the results in the same order as they are presented
- Finish with a summary/ perspectives section in which your conclusions are clearly expressed

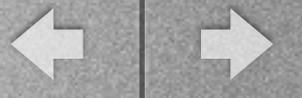




# Introduction

- Show your question is important!
- (Briefly) review the literature and cite judiciously
- Choose significant papers for background and don't overuse reviews
- Be familiar with recent work in the area
- Explain the question you are tackling in the paper/ proposal- spell it out





# Personal statements



# Personal statements

- Interest the reader! Tell a story. Referees see many personal statements.
- Detail your history- why are you interested in X? Why will you be good at X?
- What are your career plans? How does X fit with them?
- Have you any particular achievements/ overcome difficulties?
- Provide specifics to support any statements you make- much more persuasive.
- Show you are self-analytical.





# 10 things to avoid in personal statements

- 1. Quotes from other people ('As Shakespeare said, "There is a tide in the affairs of men"...')
- 2. Random lists ('I have experience in PCR, restriction digestion, DNA ligation, bacterial cloning, Southern blotting, Northern blotting, Western blotting...')
- 3. Cliché and repetition of details found elsewhere
- 4. Unsupported, sweeping statements ('My achievements are vast').
- 5. Limit your use of the word 'passion'





# 10 things to avoid in personal statements

- 6. Stilted vocabulary ('I sincerely hope that the NUI Galway Admissions Committee deems my application worthy of full consideration so that I may contribute to a programme already deserving of its national reputation')
- 7. Plagiarism, lies or exaggeration
- 8. Jokes/ humour, informality, txt. 'Weird is not a selling point'.
- 9. Negative comments or excuses
- 10. Irrelevant personal facts (...ask the 'So what?' question).





# The referee and rejection



# Reasons for manuscript rejection that can be anticipated by asking the reviewers' questions

- Are the findings novel?
- Are the findings supported by the data?
- Have the authors dealt fairly with the previous literature?
- Is the paper clearly written?





# Reasons for grant rejection that can be anticipated by asking the reviewers' questions

- Is the proposal realistic?
- Is the proposal clear in its aims?
- Are there sufficient preliminary data?
- Are the technical details convincing?





# Reasons for grant rejection that can't be fixed

- Study not likely to produce useful information
- Lack of original or new ideas
- Methods unsuited to the objective
- Proposed model system not appropriate to address questions
- **Colleagues will be an excellent source of critical reviews of a submission in preparation!**





# Killer Grant Criticisms- AVOID!

- Problem more complex than investigator seems to realise
- Overambitious/ unrealistic
- No recognition of pitfalls/ 'Plan B'
- No hypothesis/ a fishing expedition
- Lack of focus
- Experiments too dependent on an initial proposed experiment
- Not enough preliminary data
- Insufficient consideration of statistical needs



# ...In The Referees' Own Words

- *“...an intriguing hypothesis, however the experiments proposed for testing will not provide unequivocal evidence for or against it.”*
- *“...the work described in this application is over-ambitious, it could not be achieved in the life time of the Principal Investigator.”*
- *“...is a persuasive writer and has done a commendable job of marshalling evidence to support their hypothesis, however, the applicant has put aside facts that do not support their point of view.”*
- *“The poor writing, referencing and proof reading of this application significantly detract from its overall quality.”*

# ...In The Referees' Own Words

- *“...it involves techniques with which the applicant appears to have no prior experience and for which no preliminary data are proposed.”*
- *“...this does not appear to be hypothesis driven...there are no specific aims or objectives....”*
- *“...one weakness in the proposal is that there is no alternative plan should the proposed approach not yield information relevant to the hypothesis proposed.”*
- *“...I had only one problem with this application, I had no idea what they were trying to do...”*





# Learn From Rejection

- Rejection inevitable at some time-
- STOP/REFLECT
- Try to take advice (referee comments/  
editor/agency office)
- Refocus the paper/proposal
- Modify your methods
- Consider another journal/ funder





## Final point!

- Persevere- referees can make mistakes
- Balanced (and measured) rebuttal is appropriate
- Learn from their comments!





# Some Further Reading

- Mohan-Ram, V. (2000) *How Not to Kill a Grant Application*  
[http://sciencecareers.sciencemag.org/career\\_magazine/previous\\_issues/articles/2000\\_05\\_26/noDOI.11017122741101375544](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2000_05_26/noDOI.11017122741101375544)
- Kraicer, J. (1997) *The Art of Grantsmanship*  
<http://www.hfsp.org/funding/art-grantsmanship>
- Kolch, W. and Montague, L. (2011) *Grant Writing- a Short Guide to Survival and Success*  
<http://www.ucd.ie/t4cms/Grant%20writing%20workshop%20Sept%202011.pdf>

