

CPC



Research School
Lung Biology and Disease

Journal Club: Research School ‘Lung Biology and Disease’

Introduction

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= a group of individuals who meet regularly to discuss articles in current scientific literature

Apply and repeat
what you just learnt
in the intro module

Keep abreast with the
current medical
literature

Learn how to
critically evaluate a
published paper

Inspiration for your
own paper writing

Read papers
efficiently

1. Skim

- Read article to get the big picture
- Note down unknown terms and techniques and look them up!
- Look up unclear methods and key concepts in textbooks/internet

2. Re-read

- Carefully examine graphs, diagrams, tables...
- Try to interpret the data first before reading captions/results
- Make sure you fully understand the article

3. Ask yourself questions

- What problems does the work address? Why important?
Methods state-of-the-art? Is the study repeatable? Study well-conducted, all necessary controls included? Statistics?

4. What are the key points?

- In your own words, summarize the article
- Note down the key findings of the study
- Have you learnt anything that may be useful for your own work?

5. What did you like/dislike?

- Particularly elegant phrasings? -> Why not remember them for your own writing!
- Structure of text, design of figures?

Overall outline of a journal club

1. Presenter presents the first and the senior author
 - i. # publications, citations, H-index
 - ii. Affiliation and position
2. Presenter presents the journal
 - i. Areas of interest
 - ii. Impact factor
 - iii. Open access? Peer review transparency?
 - iv. Rejection rate
3. Presenter presents necessary background for understanding the paper
 - i. Disease background, animal model, pathways addressed... Aspects not covered in the introductory seminars
4. All doctoral candidates take turns to discuss figures and tables one by one
 - i. *N.B.:* All figures and tables have to be included in the presenters' slides (without figure legends). Only main article figures will be discussed in detail, nevertheless include supplementary figures at the end of the presentation
5. Presenter summarizes and concludes

Be Aware of Predatory Journals!

Credible journals



Peer review, Revisions, Rejections

Predatory journals



Greetings, We Adore Your Research!

<https://beallslist.net/>

General aspects

- Readability of the article
- Language used by the authors
- Aim of the article, Hypothesis
- Does the text match the figures?

Figures of the article

- What is the aim of the experiment (which question was addressed?)
- What are the major finding(s) in each figure? How could you phrase them as a result (full sentence)?
- Give a short description of the performed experiment and which methods were used (eg. PCR, WB, IHC)
- Be precise and explain each separate panel presented in the figure (eg. 1A, 1B, 1C etc)
- Was the experiment performed in a proper manner? Does the experiment address the actual scientific question asked? Why good/bad? Do the authors correctly interpret the results?
- Do you miss specific experiments/data/controls?
- Is statistic analysis well-performed
- What else do you like or dislike about the figure?
- What is the conclusion and which question arises next? What would be your next experiment?

How to proceed (CPC-M doctoral candidates)

- Select 3 articles from any journal (interdisciplinary or lung-specific, not predatory!)
- Topic must be the lung or closely related
- Send articles of your choice to the facilitators of your session (see calendar entry, always CC: Claudia, CPC Research School Coordinator) at the latest two weeks before the actual journal club
- As soon as you have their approval, send the selected article to the members of the research school (at least 1 week before the actual journal club) + announce to the institute by email (CPC, LHI)

- You are very welcome to join the journal clubs if we are discussing a paper that is of interest to you!
- Please note that the presenters are mostly 1st year Ph.D. candidates who are new to this. The active part (presenting overall outline, figures) will be primarily performed by CPC-M doctoral candidates, facilitated by CPC-M faculty., as it is part of their training
- Nevertheless, you are more than welcome to join the discussion after presentation of figures or at the end of a journal club.