Journal Club

M.Sc. Translational Research in Biomedicine School of Molecular Biology and Genetics

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Introduction

- Literature continually expanding but...
- Not necessarily equally important papers are produced
- Quantity vs quality...
- Critical reading and analysis are imperative

Definition of Journal Club

Group of individuals who regularly meet to critically read, understand and evaluate recent articles published on the discipline to which they are involved.

Usually organized around a defined subject which periodically may change depending on the current interests of the associated group.

- Originating from a club of like-minded people who wished to discuss topics of common interests (science in this case).
- Because of its recognized benefits, it has become incorporated in the curriculum of higher degrees (M.Sc. or Ph.D.) or professional training (e.g. medical residency) as a requirement.

Aims of the Journal Club

- to increase knowledge on a topic of common interest
- to keep up with the vast amount of information available
- to develop skills in research article analysis
- to learn how to critically evaluate journal articles
- to develop skills in professional presentations
- to improve communication skills within a group of peers
- to promote cohesion and collaboration between members of a team (research group, medical students in the same specialty)
- to develop ideas for future work
- to get inspiration by the work of others

Benefits for the presenter

- Improves your background knowledge on the topic of interest
- Makes you read more both on your immediate topic and beyond it
- Improves reading habits enabling critical thinking, meta-questioning, meta-thinking
- Increases your responsibility on critically presenting somebody else's work to your peers
- Improves your presentation skills
- Makes you socialize, facilitates your interactions within the institute or other scientific/work environment, networking

Benefits for the audience

- Improves your background knowledge on the topic of interest
- Saves you time from reading on this topic
- Improves your active listening skills, enabling critical thinking
- Increases your ability on critically assessing:
 - literature
 - somebody else's presentation of literature
- Helps you do something useful academically, even when you are having a slow day in the lab
- Makes you socialize, facilitates your interactions within the institute, networking
 - sometimes coffee, tea, biscuits, snacks are served
 - often this is sponsored by a company you can chat with their representative about products and applications for your research; but also about job opportunities

How to choose the papers

- Ideally:
- Different study designs
- Creating a controversy within a special topic
- In deep analysis on a special topic
- Choose relevant and newly appeared papers
- Avoid reviews (or not? ...rules may vary, check with "the locals")
- Avoid your own work! This is not a forum for presenting the past 6
 months of your research, or for getting feedback on results you wish
 to publish, or for getting reviews on first draft of a manuscript, or for
 (boasting about) your recent publication!
- This is not a research in progress (rip) meeting!!!

How to present

- Intro (briefly present the author(s)' background, their team and their contribution of the topic)
- Short overview-beyond the abstract
- Present and evaluate data from the article
- Briefly outline the experimental design
- Key figures, graphs, tables, selected results
 - Be prepared to present more of the paper than your selections, or to answer questions beyond what you consider the key findings
- Conclusions made by the author(s)
- This is not *your* research or thesis, you do not need to defend it. BUT you need to make a fair and balanced review of it and to make it accessible to others.

Suitable wording when talking

- "The article I am presenting is..."
- Give some background about the topic (optional if well known to audience)
- Give some background about the group that produced the research
- "The hypothesis was..."
- "The methods were..."
- "The results were..."
- "The authors discussion / interpretation / conclusion was that ..."

Suitable wording for evaluation

- "The design was appropriate / poorly thought out / etc..."
- "The sample size was large enough / too small / etc..."
- "The article clearly mentioned its flaws / was missing / etc..."
- "The significance of this article was..."
- "I felt that this article..."
- "Similar research articles present corroborating / conflicting...."
- "Further research..."

Generate participants' interest!

General Tips

- KEEP SLIDES SIMPLE —and explain with words where necessary
- Talk in your own words!
- There is a desirable "six line" rule for slides—more lines make for cluttered slides
- Do not read directly from your slides. It is more effective to elaborate verbally on what is written on the slides
- Talk to your audience! It improves every presentation if you make eye contact with your audience
- Never turn your back to the audience
- If you cannot remember something, do not try to hide it
- Arouse curiosity of the audience by identifying unexpected events/findings, suggesting provocative ideas

Journal Club
Meeting 1
Part 2

Work plan for this semester

• The aim is to apply your skills from last semester (obtained from the Academic Skills module)

- Form groups of 3 or 2 members, around 6 groups in total
- Prepare a ~1500 word essay on the article (word or pdf style docupload to eClass)

- Two types of presentations:
 - Peer to peer traditional journal club
 - Teaching / general audience style presentation

Work plan for this semester

Next Meetings:

- Week 1: Sunday 19 February 2023, 15:00-19:00 (today!)
- Week 2: No Journal Club Meeting
- Week 3: Sunday 30 April 2023, 12:00-14:00 (online)
- Week 4: Sunday 7 May 2023, 09:30-11:30 and 12:00-14:00 (in classroom)
- Other meetings with individual groups as required (through MS Teams)

Work plan for this semester

- Between Week 1 (today) and Week 2:
- Form groups and email me your names & contact details
- Search for articles and email me these suggestions
- Online meeting(s) (MS Teams) between me and group members to examine, comment, approve the articles, give any other advice

- Week 3 early presentations(?)
- Week 4 presentations