

# 7.18 Day 21 Agenda

- Discussion section
- Polishing your writing

# Elements of a Discussion Section

- Summarize findings presented in the Results section.
- State what you expected to find and why.
- Compare your findings with those of previous reports. Cite the literature!
- Explain (un)expected results: deduce and hypothesize.
- Point out shortcomings of your work and define unsettled points.
- Discuss theoretical and practical implications of your work.
- End with a short summary or conclusion about the work's importance.

*The Discussion tells a story - or makes an argument - that relates to the “big picture” issues mentioned in your Introduction.*

Example Discussion section from following article removed due to copyright reasons. Please see

Zeng, et al. *The EMBO Journal* 24 (2005): 138-148.

1st paragraph: restates context & justification of work.

2nd paragraph: summary of conclusions; comparison to background

3rd paragraph: unexpected result & implications

4th paragraph: explanation of unexpected result

Example Discussion section from following article removed due to copyright reasons. Please see

Zeng, et al. *The EMBO Journal* 24 (2005): 138-148.

5th paragraph: consistency of unexpected result with previous research

6th paragraph: explanation of other results; comparison with previous research

Example Discussion section from following article removed due to copyright reasons. Please see

Zeng, et al. *The EMBO Journal* 24 (2005): 138-148.

7th paragraph: Model, hypothesis

8th paragraph: conclusion, summary, and future directions.

# Polishing your Writing

- Topic sentences outline the development of your argument
- Topic sentence should reflect topic of the paragraph
- Smooth your transitions
- Be concise

# Use active voice

We demonstrate a technique *whereby* the proteins of an entire cellular lysate *may be* separated on a gel, and subsequently...

The effects indicated several important results. *Such results were* a decrease in size when...

# Don't end with a preposition

The results should indicate which subtype, if any, the...oligomers have *the most affinity for*.

During increasing PCR cycles, each DNA segment will have an increasing number of overlapping partners that it can possibly *anneal with* in a cycle.



# Avoid colloquialisms

... a clean band on the one hour slide, and a *blob* of fluorescence on the overnight slide.

... we will be able to manipulate the nanoparticles *to our liking* and possibly set up qualitative trends.

# Avoid jargon

...we *PCR added* a sequence of 57bp to the C-terminus...

... as well as *PCRing* up certain DNA fragments using labeled primers.

Three labeled proteins...were *run* on a 15% SDS-PAGE gel with a 3% stacking gel, and then subsequently...

# Upcoming assignments

*Due Tuesday, 29 November:*

- Submit first draft of research paper or grant proposal.
- Group meeting (optional): Dress rehearsal or Latest results.

*Tuesday, 1 December until Thursday, 8 December:*

- Final lab presentations.

*Due Tuesday, 13 December:*

- Submit final draft of research paper or grant proposal.
- Class party.