7.021 Meeting 4: Results

Out-of-class Assignment Guidelines

- Double-space all assignments (so that I can write between the lines).
- Make sure that everything you hand in is labeled with your name and section.
- Please turn in commented-on first drafts with your revised versions.
7.021 Mid-Term Feedback

On index cards, please respond anonymously to the following questions:

– What has worked best in this class so far and why?
– What has not worked well in this class and why?
– What single change can you suggest?

Prof. Fussbudget’s Brief List of Language Grievances

• A naked “this”:
  – This, in turn, leads to the inhibition of the transduction of BCR-ABL.

• An “it” without a clear referent:
  – This prevents it from acquiring any characteristics particular to a certain organ or tissue.

• A dangling modifier:
  – After observing its antileukemic activity in preclinical models, a phase 1 trial of ST1571 was conducted . . .

• The use of “since” when you really mean “because”:
  – Since ST1571 occupies the binding site designated for ATP, the enzyme cannot catalyze the signal transduction pathway.

• A sentence that starts with “There are . . .”:
  – There are drug regimens for the treatment of CML.
What is the Purpose of the Results Section?

- **Objectivity**: Make the data, just the data, easy to find.
  - *Some readers want to interpret your data themselves rather than accepting the interpretation presented in the discussion.*
- **Description**: Describe the data presented in figures and tables.

What Differentiates Results from the Methods and Discussion?

- **Methods versus Results**:  
  - *Methods* = *How* the data were accumulated.  
  - *Results* = *What* data were accumulated.
- **Results versus Discussion**:  
  - *Results* = Data *presentation* (“Experiments showed that . . .”)
  - Discussion = Data *interpretation* (“Experiments suggest that . . .”)
What are the contents of a results section?

- A brief description of the experiment or rationale at the beginning of each subsection.
- The data (in past tense).
- Use descriptive text for FEW determinations.
- Use tables or graphs for REPETITIVE determinations.
- Report only meaningful data (not all data).
- Report data in figures or text but not both.

What are Some Qualities of a Well-Written Results Section?

- Methods and Results Correspond.
  - i.e., no experimental results for which there are no methods, and vice versa.
- Results are presented in a logical order.
  - e.g., most important first, most fundamental first, etc.
- Results focus on the question(s) or hypothesis introduced earlier in the paper.
What are Some Pitfalls of a Results Section?

- **Overstating** the results
  - (e.g., “Figure 1 clearly shows…”)
- **Reporting irrelevant** results
  - Although it is sometimes useful to report experiments that didn’t work.
- **Omitting** visual organizers
  - Such as subheads.
- **Including inappropriate** illustrations.
  - As we discussed last meeting.
- **Including methods and/or discussion.**
  - Overlap is acceptable in some circumstances.

Today’s In-Class Exercises

1. Go to the Stellar discussion board and complete exercise for Meeting 4.
2. Provide mid-term feedback on 7.021.
3. Share some good and bad illustrations that you found in the literature.
4. Groups of students will be given a protocol to conduct physiological experiments. Conduct your research, collect the data, and write up a results section. Include illustrations. Post your results on the Stellar discussion board.
Out-of-Class Exercises for Meeting 4

1. Write a results sections for one of the experiments from your current lab module (based on your lab notebook).
2. Write two alternative opening sentences to the results section above.
3. Continue with your Long-Term Project.
   • Write up Results section for next meeting.
   • Revise prior sections based upon my comments. Hand in previous draft along with revision.