VAN DER HEIJDEN LAB

PAPER WRITING TIPS

Always be writing

Have a **living document** for all major research projects. This document starts with a running title and the major sections for a manuscript (ie. “Abstract”, “Introduction”, “Discussion”, “Methods”). You slowly build on this document so that by the time the figures are done, you only have to write out the story.

- When you dial in the methods for a procedure or experiment, you ***immediately*** write down that part of the methods. Future you will thank you for this.
- Found a paper highly relevant to your research? Import the citation and write a two/three sentence summary of the paper in your living document.
- Done with your daily/weekly “To-Do-List”? Waiting for incubation step on your experiment? Have half an hour to spare? Start writing the general parts of your methods; what mouse lines are you using? What antibodies? Etc.
- Once you have completed your methods section, you should have a good feel for what your story is going to broadly look like. Start writing the “subheadings” of your result section.

Drafting a final paper

Once you are ready to write the paper, start filling out your living document:

- Identify a goal journal where you want to submit the paper. Look up word limits, figure/table limits, figure formatting, citation style, etc.
- Make a skeleton paper with one-sentence summary for each paragraph and outline for each figure. Share and discuss with the PI.
- A first draft is an ugly draft. Shaping and perfecting a paper takes time and teamwork.

Make your figures

Similar to your paper, your figures are living documents.

- Once you have collected your data – make your figure panels. These figure panels are useful for presentations, papers, and posters. When you perform statistics on your data, safe all information about the statistical test with your raw data. Future you will thank you for this.
- Save your panels in a vectorized format so you can change font, size, colors, etc.
- All figures should be colorblind friendly. Immunofluorescent images should be black/white when in single color or magenta/green for dual color. Triple color images should be avoided when possible. Line art and summary data should be in colorblind friendly color palettes.
- Good figures can be followed without having to read the figure legend. Include: schematics of experimental outline, representative raw data examples (if applicable), scale bars, explanation of colors used in panels.

If you consistently do the above, you’ll never have to start your paper or figures from scratch and stare at an empty page.