Lab Report Outline

Introduction

- C. elegans as a model system to study development
  Size, transparency, life cycle, genetics, etc.
- Forward genetic screen as way of identifying all genes controlling a biological process

Methods (choose one)

- DIC microscopy
- Fluorescence microscopy
- Using GFP to tag cells and proteins (all colors of fluorescent proteins)
- Identification of unknown mutation: course and fine mapping. SNP mapping. Sequencing.
- Method for generating transgenic C. elegans

Results

Mutant characterization

- Comparison of gross morphology and behavior to wild type (level of dissection microscope
- Comparison of gonad development: WT vs Mutant
- Comparison of GABA neurons or sensory neurons or muscles
- Mapping to chromosome (include explicit description of crosses and the expected results)

Discussion

- Candidate gene based on all phenotypes and map position
- How does the molecular nature of your candidate gene explain your mutant phenotype?
- Human homologue? Human disease?

References

Your power point presentation can roughly follow the same outline, but you have more latitude to explore and expand on particular topics that interest you. You could give you presentation entirely on one of the above listed techniques, C. elegans as a model to study a particular human disease, organ development (pharynx, vulva, gonad), or the use of animations to illustrate developmental biology!