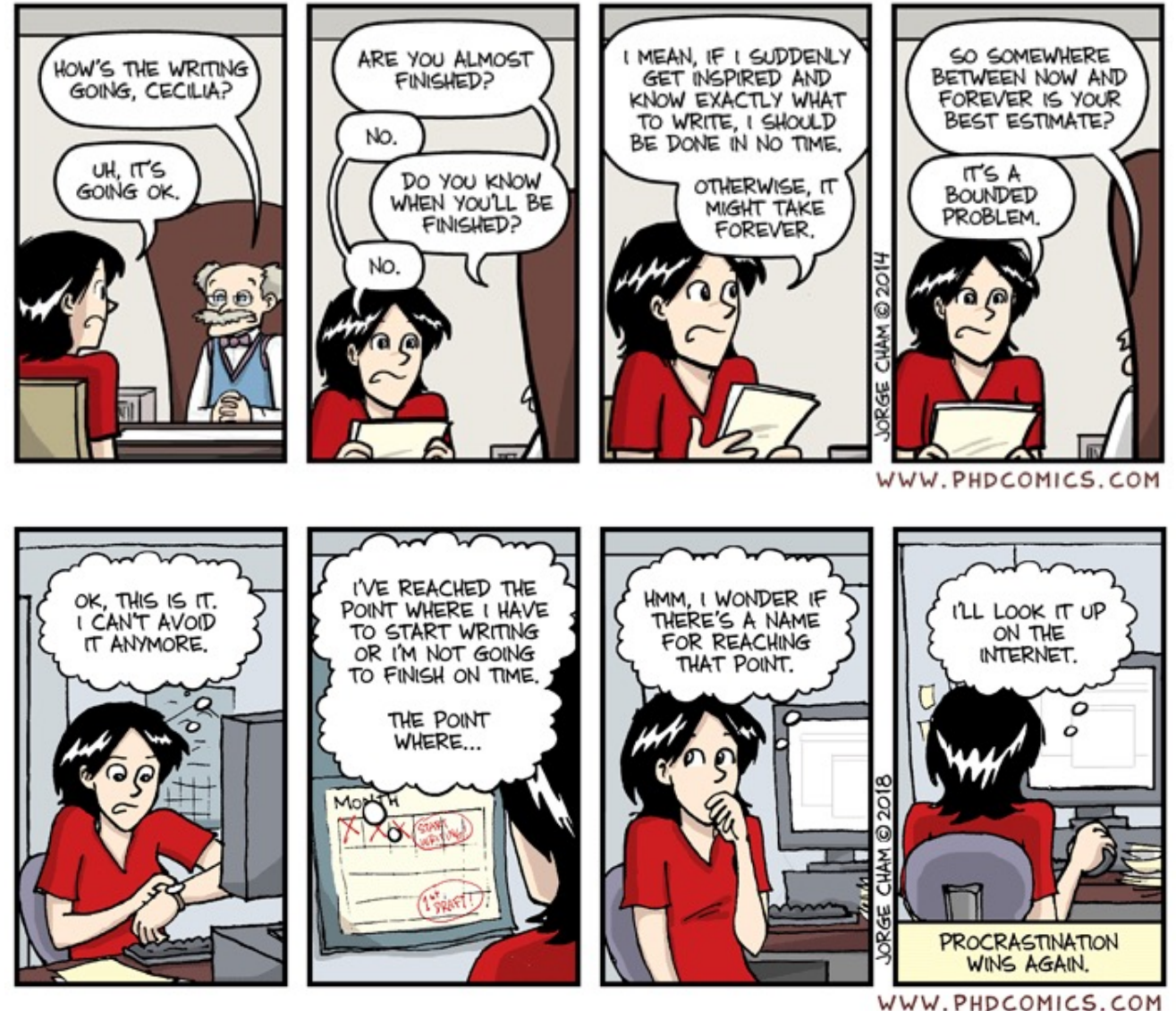


Organizing the Research Article

- Discuss components of the research article assignment
- Discuss figures
- Work day to put together figures and outline text

Additional Office Hours:

- Noreen: (Sat. 11/20) 10am-1pm ON CAMPUS
- Becky: (Sat. 11/20) 1pm-4pm ON ZOOM



Notes on the Research Article

- Tell a cohesive story
 - Don't forget the hourglass narrative!
- Don't forget to address all data you present
- Your main document (excluding figures) should be/have
 - .docx or .pdf (preferred)
 - 12-point font
 - with 1-inch margins
 - double-spaced (except the abstract)
 - Figures can be made in a separate drawing program (such as PowerPoint), and can either be embedded or submitted as a separate document.
- Not counting figures/title/abstract, report length should not exceed 14 pages. The following rough division is recommended:
 - Introduction: 2-3 pages
 - Materials and methods: 3-4 pages
 - Results: 3-4 pages (not including figures)
 - Discussion: 2-3 pages

Title/Abstract: 10%

Introduction: 10%

Methods: 20%

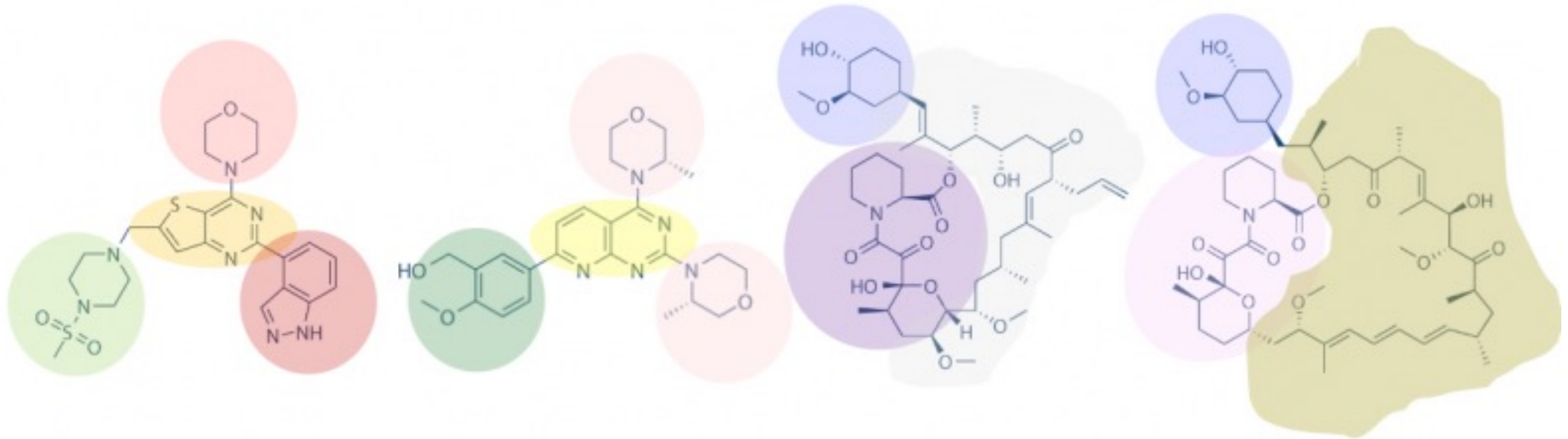
Results: 50%

Discussion: 10%

Figures (in no particular order)

- Overview Schematic
- Restriction Digest of protein expression plasmid
- SDS-PAGE of protein purification
- ★ • Chemical structures of compounds identified through SMM
- ★ • BLI experimental validation (assess controls)
- ★ • BLI single compound assessment (just your compound)
- ★ • Binding kinetics table

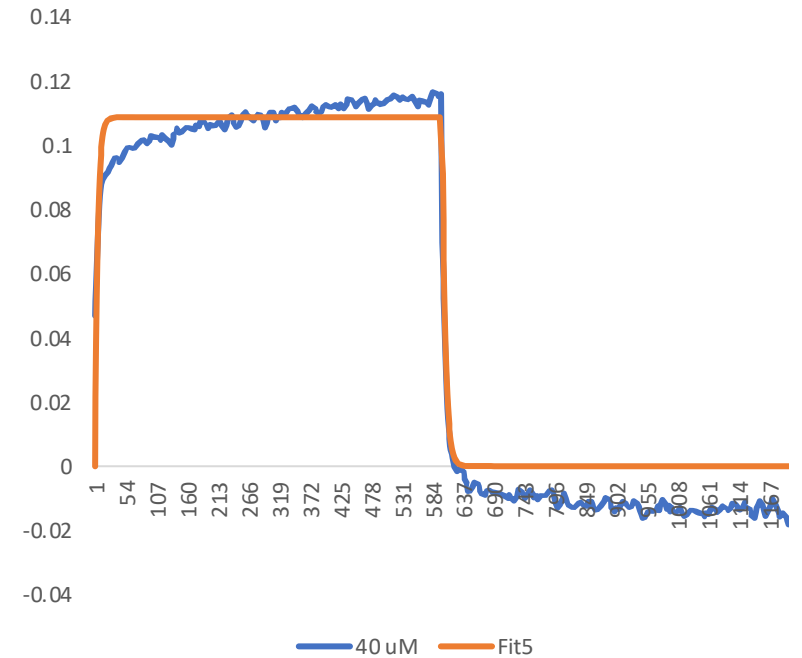
Examine binders to identify common structures



- Manuscript writing allows for data interpretation
- Be careful not to overinterpret
 - Reviewers will reject a paper where conclusions aren't considered justified

BLI experimental validation

- Show fit overlay graph (generated from 03_Processed fit) for:
 - Negative control from your experiment
 - Instructor Positive Controls 1&2
- Indicate calculated K_d on each graph
- Concepts to cover:
 - Qualitative and quantitative assessment of data
 - Goodness of fit (qualitative or quantitative) and what that tells you independent of K_D



BLI single compound figure

- Raw data of your compound (no matter how it looks)
- Fit overlay graph for an example of the compound (either from your own data or from the class data)
 - OPTIONAL: fit overlay graph for the other compounds
- Concepts to cover:
 - Qualitative and quantitative assessment of data
 - Does your more closely resemble the positive or negative controls from the validation experiment?
 - What does this data tell you independent of the K_D ?

Binding kinetics table

- Include kinetic information for all 4 compounds:
 - K_D , K_{on} , K_{off}
- Concepts covered:
 - Compare different rate constants
 - Speak to overall association/dissociation rates
 - Speak to relative binding affinity in context of all compounds and controls