# Analysis of Scientific Papers ANAT900

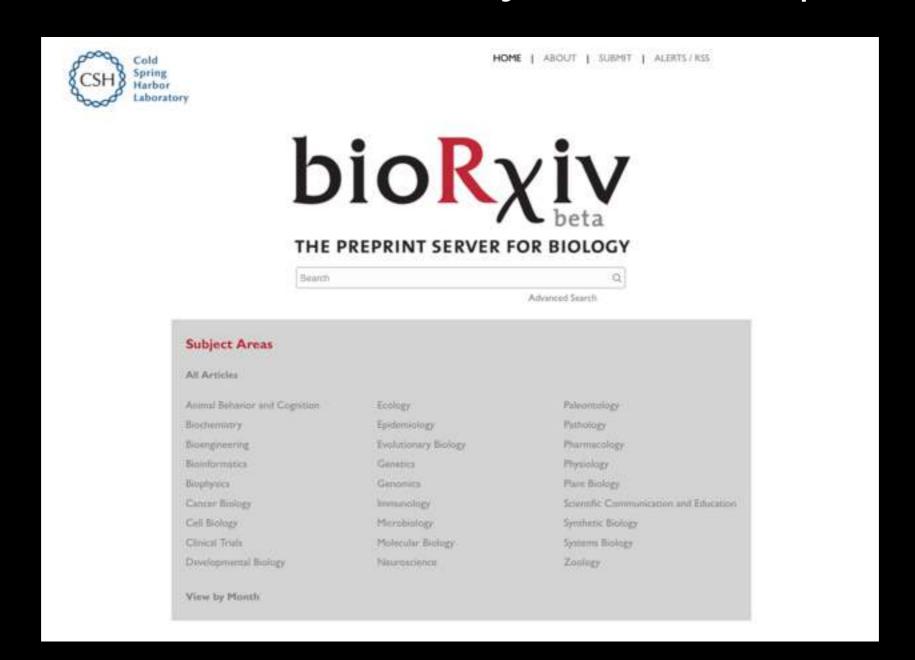
Fall 2016
Thursdays 2-3pm (excluding Sept 8)
2030 Hemenway

# Theme: Preprints

## Course Goals

- Become familiar with preprints
- Learn how to analytically dissect a manuscript
- Learn how to create a written review for a manuscript that has not been previously peer-reviewed (as a journal referee would)
- Get comfortable with your decisions having weight (your reviews will be posted online)
- Provide much needed feedback to preprint authors (your review will also be emailed to corresponding authors)
- Make connections with the larger scientific community

Preprints are non-peer reviewed manuscripts posted for free on servers open to the world-wide scientific community and the public.



# Where can you find preprints?

- bioRxiv.org
- preprints.org
- arXiv.org
- peerj.com/preprints
- f1000research.com (prior to review)

# Course Organization

- Sign up for a date to present and post an online review.
- You will be automatically signed up to provide a written review 2 weeks after your presentation date.

	Presenter	Co-Author
Week 1	Person A	Person D
Week 2	Person B	Person C
Week 3	Person C	Person A
Week 4	Person D	Person B

# Course Requirements

- You are responsible for:
  - 1. presenting one time during the course
  - 2. working with co-author to post a written review to <a href="mailto:thewinnower.com">thewinnower.com</a> (by 3pm Monday after your presentation)
  - 3. emailing corresponding author your review
  - 4. preparing a written review and co-leading a discussion for an additional preprint 2 weeks later

### Presentation Breakdown

- Spend no more than 30 minutes covering an introduction and basics of figures in the preprint. (Less if possible!)
- Spend remaining time reviewing the preprint as you would for a journal.

## How to Review a Manuscript

#### 1. Overview:

- · Summarize the major finding in the paper to show you understand.
- What does this finding add to the field (put the finding in context of what is was previously known and discuss the impact of the new information)?
- · Summarize your opinion of the paper and whether you want particular points addressed in a revision.

#### 2. Major Points:

- List major points that must be addressed (by rewriting) by the authors in order to proceed with publication.
- List major points that must be addressed (by further experiments) by the authors in order to proceed with publication.
- 3. Make any suggestions that might significantly improve the manuscript

#### 4. Minor Points:

- List minor points that must be addressed (typos, incorrect labeling offigures etc.)
- List minor points that might improve the manuscript (rewording for clarity, additional work/citations that are relevant to the discussion)

#### 5. Recommendation:

- Accept without revision?
- Accept with minor revision?
- Accept with major revision?
- · Reject?

## Written Review

- Include only Overview and Major Points in review to be posted online.
- Presenter and co-author will work on finalized written review together (incorporating comments from class discussion) and post on <u>thewinnower.com</u> by 3pm Mondays.
- Both presenter and co-author listed as authors for online review.
- Presenter will email corresponding author with posted review.

### Preprint to present next week

Loss of a doublecortin (DCX) domain containing protein causes structural defects in a tubulin-based organelle of *Toxoplasma gondii* and impairs host cell invasion.

Eiji Nagayasu<sup>1</sup>, Yu-Chen Hwang<sup>2</sup>, Jun Liu<sup>3</sup>, John M. Murray<sup>3</sup>, Ke Hu<sup>3</sup>

doi: http://dx.doi.org/10.1101/069377

### Preprint to present October 13

Chytrid fungi construct actin-rich pseudopods, implicating actin regulators WASP and SCAR in an ancient mode of cell motility

Authors: Lillian K. Fritz-Laylin, Samuel J. Lord, and R. Dyche Mullinsa,1

doi: http://dx.doi.org/10.1101/051821

# How to Contact Me

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# Questions?