

PAPER PROJECT GUIDE

Principles and Applications of Systems Biology



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Project Guide

You should meet with your supervisor (at least once) to discuss the scope of your project.

IMPORTANT: You are expected to conduct your work independently. Your assigned supervisor is there to guide your project, point you to the right literature and answer questions when you are stuck.

But she/he is not there to do your job!

Goal of the Project

Key Goal:

Understand the **impact of the results on the broader field**

Computational focus:

- Understand methods and results used or developed with in the paper
- Reproduce (some*) of the key results from the paper

Experimental focus:

- Understand the data collected and analyzed by the paper
- Discuss the contributions and limitations of the results

You supervisor will help you decide where the focus of your project should be.

Depending on the paper you might have to **consider aspects of both.**

*depending on the extent of the paper

Goal of the Project

To understand the impact of the results on the broader field you are expected to follow up on the latest publications in field:

Who is citing this paper? And why?

The screenshot displays the Web of Science interface. At the top, navigation tabs include 'Web of Science', 'InCites', 'Journal Citation Reports', 'Essential Science Indicators', 'EndNote', and 'Publons'. The main header features the 'Web of Science' logo and 'Clarivate Analytics'. Below the header, there are search and navigation options like 'Search', 'Search Results', 'My Tools', 'Search History', and 'Marked List'. The main content area shows the title 'Noise Propagation in Synthetic Gene Circuits for Metabolic Control' with authors 'Oyarzun, DA', 'Lugagne, JB', and 'Stan, GBV'. It indicates '14 Times Cited' and '53 Cited References'. A 'Citation Network' section is partially visible on the right. Below the main article information, there is a 'Citing Articles' section showing two results: 'A Synthetic Recombinase-Based Feedback Loop Results in Robust Expression' and 'The Influence of nuclear compartmentalisation on stochastic dynamics of self-repressing gene expression'. The interface includes various utility buttons like 'Full Text Options', 'Look Up Full Text', 'Save to EndNote online', and 'Add to Marked List'.

Presentation Guide

Presentations should be **under 20 min.**

Due to time constraints we have to enforce this!

A good rule of thumb is 1 minute per slide... but make sure you practice!

You paper presentation should contain:

- Brief introduction to the topic
- Methods used in the paper
- Discussion of the results
- Broader impact on the field

Evaluation

Your presentation will be graded based on the following scheme:

The maximum is 100 points.

Additionally, you can get extra points for clearness and concision, and if you finish in time (within the 12 minutes).

1) Did the group work independently ? (only assigned supervisor)	20 pts
2) Is the topic well introduced ?	20 pts
3) Are the methods (computational or experimental) clearly explained?	20 pts
4) Are the results (paper and own simulation) properly discussed?	30 pts
5) Does the group understand the impact of the results on the field?	10 pts
Bonus: Is the overall presentation concise, clear and in time?	10 pts

Note: The grade for the presentation will be **100% of your final grade!**