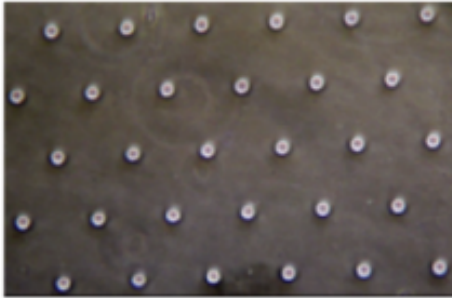


M1D3:

Evaluate cell loading results

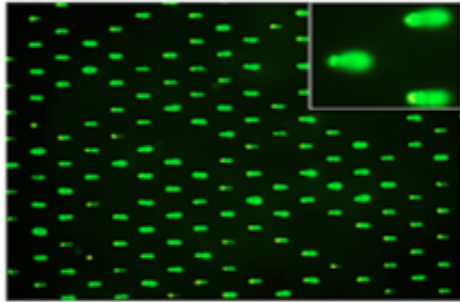
1. Communication Lab workshop
2. Image CometChip
3. Benchwork
 - Prep CometChip(s) for biochemical test
4. Improve homework due M1D3
5. Postlab discussion

Overview of Mod1 experiments



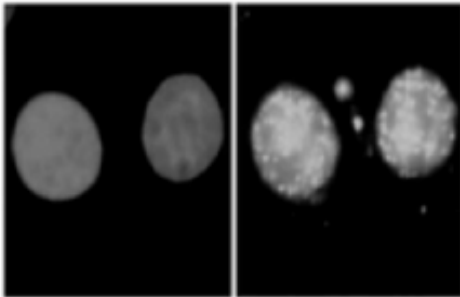
1. Optimize comet chip assay

- Test loading variables



2. Use comet chip assay to measure DNA repair

- Measure effects of MMS and H₂O₂ on BER



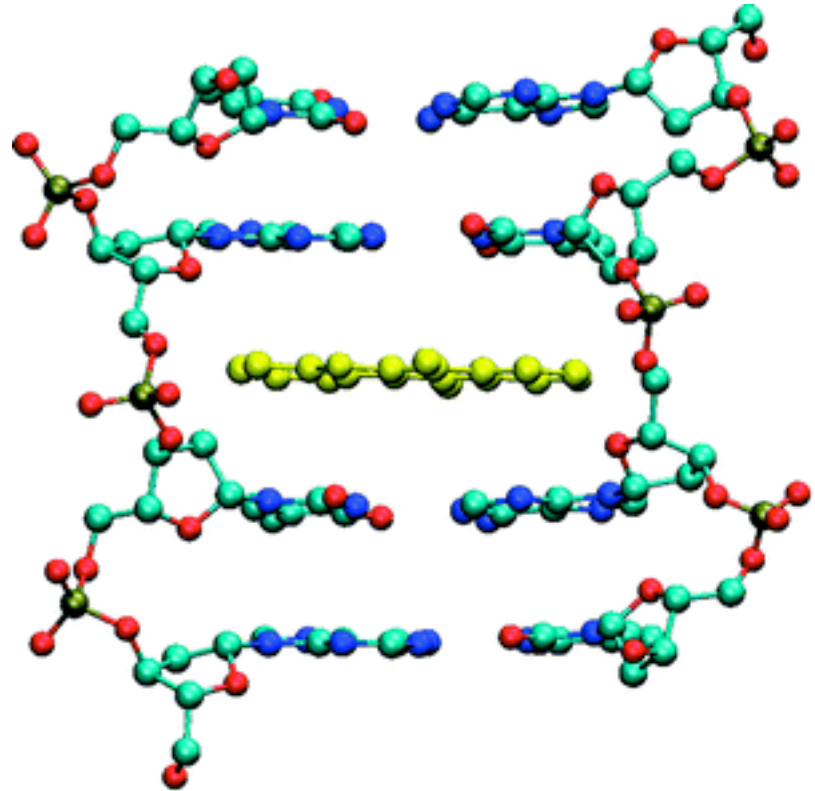
3. Use immuno-fluorescence assay to measure DNA repair

- Examine effect of MMS and H₂O₂ on DSB abundance

Follow-up from M1D2: lysis and staining

- Alkaline lysis
 - NaCl, Na₂EDTA, Tris
 - Triton X-100
 - pH = 10
- Neutralization
 - Tris
 - pH = 7.5
- Staining
 - SYBR Gold

intercalating agent



Possible considerations when choosing a DNA stain?

signal, sensitivity, chemistry

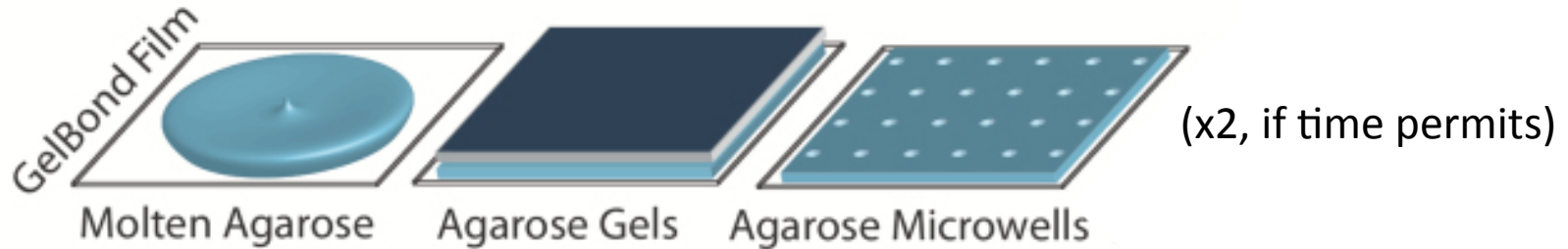
Exp1: Optimize CometChip loading

What cell number is best for loading?

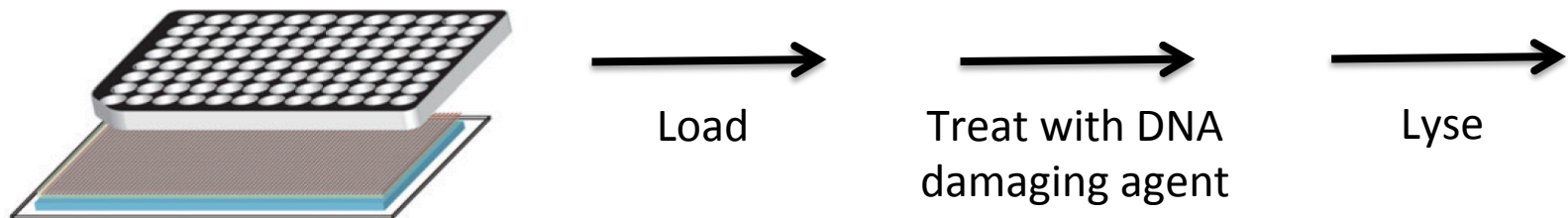
	'low' cell number (% filled)	'high' cell number (% filled)
Red	60K (85%)	120K (95%)
Orange	30K (63%)	120K (75%)
Green	20K (85%)	100K (85%)
Blue	25K (55%)	50K (72%)

Exp2: Biochemical testing using CometChip

M1D3:



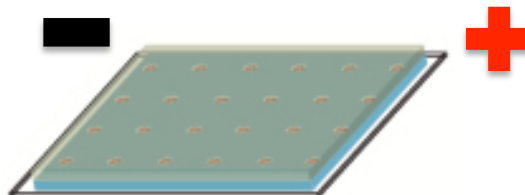
M1D4:



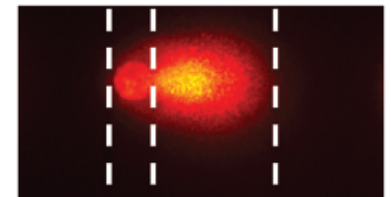
M1D5:

Chip 1: no enzyme control

Chip 2: purified enzyme treatment



M1D6 and D7:



How will we communicate these data?

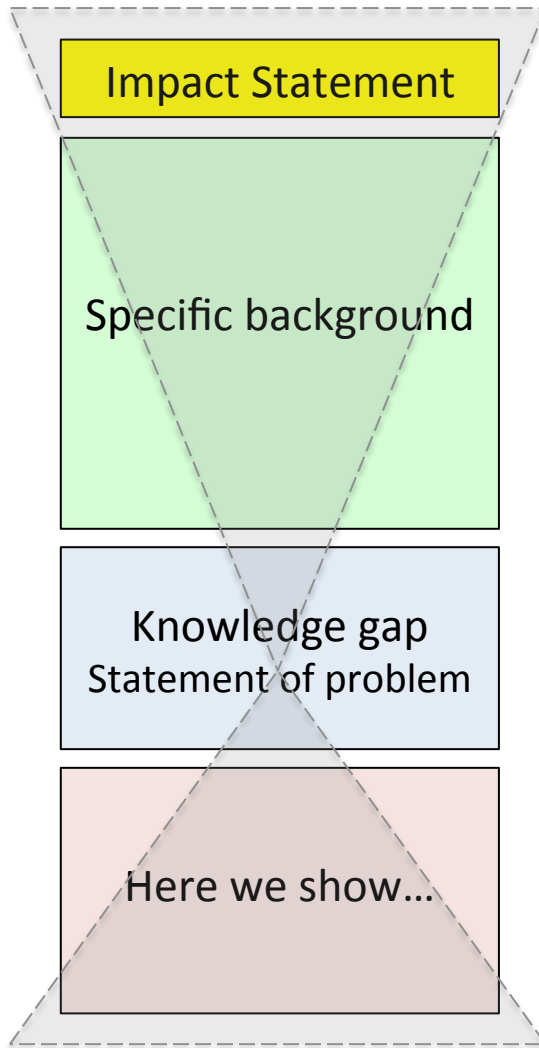
Data summary draft due Mon., Oct. 9 at 10p

Summary content

1. Title
2. Abstract
3. Background & Motivation
4. Figures, Results & Interpretation
5. Implications & Future Work

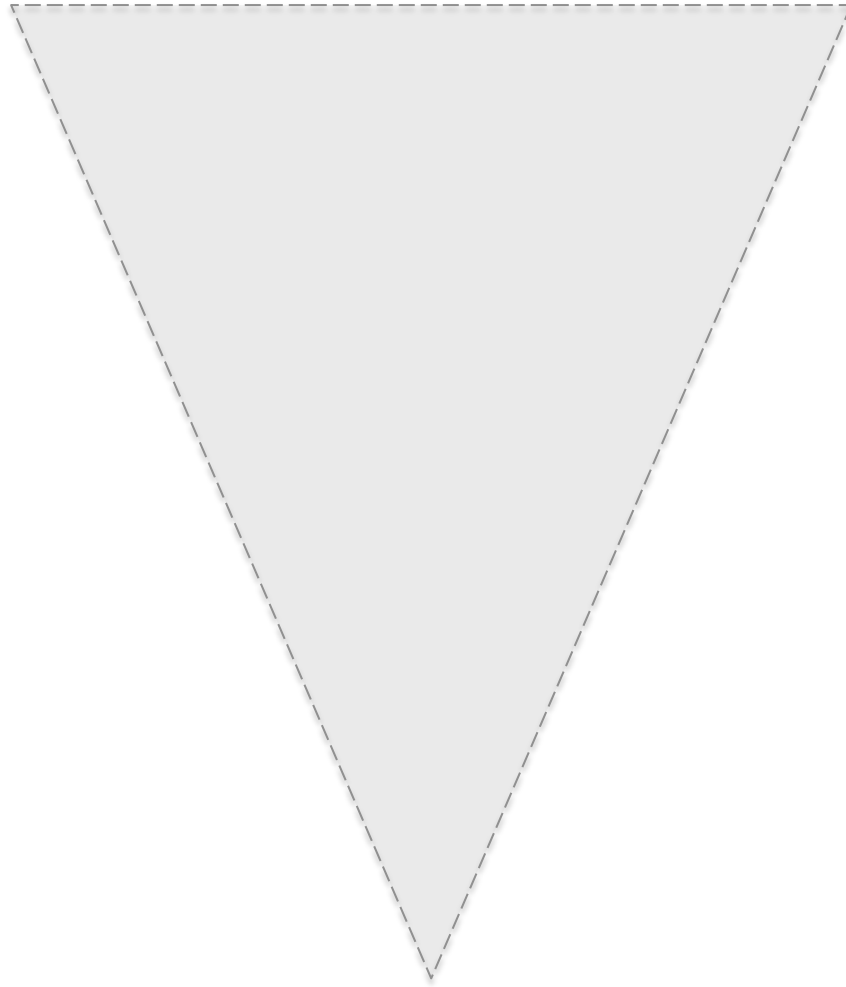
Homework due M1D4 is practice for
Background & Motivation section

How to write the Background & Motivation



- Impact statement
 - why what you are studying is important
 - connecting your research to a broader context
- Specific background
 - information needed to understand what you did and why
- Knowledge gap
 - what your research is adding to the current field
 - (identifying the hole that needs to be plugged)
 - Hypothesis
- Here we show

Write a single, consistent story



Before you leave...

- Let us know if you did not finish preparing **two** CometChips
 - Or if we need to finish the preparation
- Revised figure homework due by 10 p
 - Email to Noreen (nllyell@) and Josephine (@joshaw)