

- ☒ Create new assignment
- ☐ Use an existing assignment as a template

EXPERIMENT SETUP

In this section, you will specify the strains and treatments available for experimentation.

1. Name the strains available for experimentation.

1

Strain A

2

Strain B

x

ADD

2. Select the experimental variables you wish to define for your treatment protocols. Select all that apply.

- ☒ Treatment Concentration
- ☒ Temperature
- ☐ Treatment Start Time
- ☐ Treatment Duration
- ☐ Collection Time

Notes: The instructor will input the experimental variables that apply to his/her experiment setup

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SAVE AND CONTINUE

3. Define the treatment protocols available for experimentation.

a) Define your treatment variables.

	Treatment Name	Concentration	Concentration Units	
1	<input type="text" value="Treatment 1"/>	<input type="text" value="Concentration"/>	<input type="text" value="Units"/>	
2	<input type="text" value="Treatment 2"/>	<input type="text" value="Concentration"/>	<input type="text" value="Units"/>	x

ADD

Notes: We have “Add Row” and delete buttons here so the instructor. The instructor cannot delete the first row.

b) Enter each of your temperatures.

Temperature		
<input type="text" value="Temperature"/>	°C	
<input type="text" value="Temperature"/>	°C	x

ADD

Notes: For parts a and b, the concentration and temperature units will be in separate pre-populated drop down menus. The drop down menu will contain many options with Greek Letters. There will also be an option to define a new unit, although it is likely that the instructor won’t be able to add units with greek letters unless by request.

If the instructor enters collection time (or duration or treatment start time), then a units drop down is required for seconds, minutes, hours, days etc.

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SAVE AND CONTINUE

4. Below are all possible combinations of strains and treatment protocols.
- You can delete irrelevant combinations and sort the combinations into the desired order.
 - If you would like to edit individual experimental variables, go back to the previous pages.

SAMPLES

SORT

Strain	Treatment	Treatment Concentration	Temperature	
Strain A	Treatment A	100 ng/mL	30 C	X
Strain A	Treatment A	100 ng/mL	37 C	X
Strain A	Treatment B	200 ng/mL	30 C	X
Strain A	Treatment B	200 ng/mL	37 C	X
Strain B	Treatment A	100 ng/mL	30 C	X
Strain B	Treatment A	100 ng/mL	37 C	X
Strain B	Treatment B	200 ng/mL	30 C	X
Strain B	Treatment B	200 ng/mL	37 C	X
Strain C	Treatment A	100 ng/mL	30 C	X
Strain C	Treatment A	100 ng/mL	37 C	X
Strain C	Treatment B	200 ng/mL	30 C	X
Strain C	Treatment B	200 ng/mL	37 C	X

All of the possible combinations of the variables (in the preceding questions) will be presented to the instructor. The instructor can delete row(s). In addition, each column can have the ability to sort based on ascending/descending order.

This table may or may not be formatted as the Add Samples window (as currently shown). If we format it like the Add Samples window, then it may not appear to be editable, which it is. The instructor will see a preview of the Add Samples window later and will be asked to confirm the experimental setup at that time.

More Advanced possibilities to consider:
1. Instead of going back to edit the setup, the instructor could do a quick edit of the setup here. The values would need to appear as text boxes.

2. This information could be displayed as the “Add Samples’ window in StarCellBio so the instructor can see what it will look like. Or a “Preview” button can be available. This may not be necessary though since they will see a preview of it later.

3. The instructor could be able to re-arrange the order of the rows and/or columns here into the desired position. We will need to check whether this functionality will work with the current StarCellBio programming.

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SAVE AND CONTINUE

Would you like to group your experimental setup by one of your variables in the “Add Samples” window in StarCellBio?

☒ Yes

☐ No

If yes, which one?

☒ Strains

☐ Treatments

☐ Treatment Concentration

☐ Temperature

IGNORE FOR NOW: This question will likely get grouped together in the “SORT” popup window accessed on the previous page.

If the instructor selects yes, then the next question appears. Based on the selection, the new re-grouped “Add Samples” window should appear on the next screen. The instructor will need to “ok” the information before continuing.

If the instructor selects no, then a preview of the experiment setup in the Add Samples window will still appear on the next page and the instructor will need to confirm it before continuing.

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SAVE AND CONTINUE

5. Please confirm your experimental setup before continuing:

ADD SAMPLES

Strain A:

☐

Treatment

☐

Treatment A

☐

Treatment A

☐

Treatment B

☐

Treatment B

☐

Treatment A

☐

Treatment A

☐

Treatment B

☐

Treatment B

☐

Treatment A

☐

Treatment A

☐

Treatment B

☐

Treatment B

Treatment Concentration

100 ng/mL

100 ng/mL

200 ng/mL

200 ng/mL

100 ng/mL

100 ng/mL

200 ng/mL

200 ng/mL

100 ng/mL

100 ng/mL

200 ng/mL

200 ng/mL

Temperature

30 C

37 C

30 C

37 C

30 C

37 C

30 C

37 C

30 C

37 C

30 C

37 C

Notes: This page will provide a preview of exactly how the experiment setup will appear in the “Add Samples” window in StarCellBio.

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Confirm Experimental Setup