

2018-6-20

What to bring and what to expect from your inDrops run

Please check in with the SCC a few days prior to the day of your run to review run details: number of samples, expected cell density (cells/ml), number of cells to collect (including backup cells), how cells will be split (# per library and # per backup), and any issues with your samples.

What to bring:

1. Cells:

- To minimize time between dissociation and encapsulation, bring your sample intact if possible, and perform the final dissociation step in our tissue culture room. For tissue culture plates, you can bring cells several days before to minimize perturbations to the cells prior to dissociation.
- If you are performing dissociation elsewhere, coordinate with the SCC staff in advance to ensure that there is minimal wait time between dissociation and encapsulation. You can start by bringing your first one or two samples then bring the next few a predetermined time later.
- If you are performing FACS prior to inDrops, likewise coordinate to minimize waiting times. Note many FACS cores will let you book further in advance than usual if coordinating with another core.
- If you are bringing samples already diluted in OptiPrep be sure to inform the SCC staff of this. Also, bring some of your buffer if using anything other than PBS as your final buffer in with your sample.
- **Your sample buffer MUST NOT contain Calcium, EDTA, or heparin.**

2. Reagents:

- If performing dissociation in our TC room, please bring all your required dissociation reagents.
- We have standard laboratory equipment available to us for you to use in your sample processing.

Starting July 1st we no longer require you to bring enzymes for your runs.

What to expect during/after your inDrops run:

On the day of the inDrops run:

- You will bring and coordinate your samples with the SCC staff member running your samples. Review with the staff of any issues with your samples, cell density, number of cells to be collected and cells per library you want to make and number of backup cells. (1000-3000 cells per library)
- At the end of your inDrops run, your cells will be barcoded and frozen at -20C.

Library preparation:

- The next step involves library preparation, which is a 4 day process. Multiple samples are processed simultaneously by the core in a 96 well plate format.
- We aim to prep libraries within two weeks following your inDrops run. In some cases, we may delay for longer to collect more samples or due to other core work.
- **For reduced batch effects if your experiment spans several days of inDrop runs we suggest waiting for all runs to be finished before proceeding with library preparation.**

Sequencing:

If all looks good, we will hand over the libraries to you for sequencing. It is your responsibility to submit the samples for sequencing. There are multiple sequencing choices that we will discuss with you at this point.

Bioinformatics:

Once the sequencing data is ready, you can perform your own analysis, or we can refer you to the HSPH Bioinformatics core, who are knowledgeable in analyzing inDrops data.