# Calculations how many control aliquots do we need:

* Sandra suggested to homogenize a big sample and then make aliquots of this. I agree very much.
  + Take 4 \* 2 g from one VERY big sample in 50 mL falcons
  + Add 30 mL buffer to each falcon and homogenize by horizontal vortexing.
  + Pour the solutions of all 4 falcons together and make 1 mL aliquots
  + See below **we need ca 80 aliquots** in total for the Direct study and the pilot.
  + Store the aliquots at -80 (?): some cells might be broken by this but I still hope that the aliquots are pretty comparable.
  + In each experiment just thaw the aliquot and filter it (or spin it, depending on what you decide)

## Aliquots needed for the pilot study

* I would suggest here 2 control aliquots per plate (see below). We have 5 plates, so we needed 10 aliquots

## Aliquots needed for the DIRECT study

* I would suggest here 1 control aliquots per plate if the aliquots looked nicely similar in the pilot study. We have roughly 60 to 65 plates, so

# Here the adjusted calculations on how the plates will look like

Pilot Study:

* We agreed on:
  + For one person we have 6 aliquots per time point, with 4 timepoints we have 24 aliquots in total
  + For each of the 24 aliquots do 3 technical replicates >> 3 \* 24 = 72 wells
  + On top 1 Control: 4 technical replicates (from 2 aliquots) plus 2 unstained + 1 buffer only >> 72 + 6 = 78 wells = 1 plate
  + So 1 plate per person >> 5 plates for pilot study (2.5 weeks)

DIRECT study:

* 1 aliquot per person with 3 technical replicates
* Then 25 persons go on 1 plate: 25 \* 3 = 75 wells + Control 3 technical replicates + 2 unstained + 1 buffer only = 81 wells
* 1 plate per 25 persons
* If both Sandra and Liwei can manage 1 plate a day, then we have 50 persons a day
* 1500/25 = 60 plates in total, and 30 analysis days (a 2 plates) >> 15 analysis weeks >> 4 months