Setup 3rd manuscript impedance spectroscopy:

* Organism: *Lysinibacillus sphaericus* JG-A12
* small ODs 0.1, 0.2, 0.25, 0.35, 0.4
* high ODs 0.4, 0.8, 1.2, 4.0, 8.0
* living and dead cells
* cultivation of JGA12 in Erlenmeyer flasks overnight

Preparation samples for Mahdi

* measurement OD
* take aliquote
  + 1. living 2 times washing with seralpur H2O
  + 2. Dead: treat with antibioticum incubate for 3 h,washing with seralpur H2O
* Concentrate the cells
  + OD 90 for high ODs
  + OD 8,5 for mid ODs
  + OD 2 for small ODs

Therefor cells need to be centrifuged and resuspended in small volume of seralpur H2O (pipetting up and down).

What else is to do

* Microscopy of cell culture (no spores?)
* Determination of cell number:
  + 1. Colony forming units (cfu) via plating of living and dead cells– take pictures from plate after incubation, cfu counting on plate after 24 h incubation
  + 2. Counting chamber: Phase contrast pictures of living and dead cell cultures, plus counting of whole cell number: ->
  + Whole cell number from counting chamber is compared with cfus from plating experiment and is correlated to ODs

**Pipetting scheme for Mahdi:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Desired OD on chip | OD stock | Volume  [µl] | Desired OD on chip | OD stock | Volume  [µl] |
| 0.1 | 2 | 1 | **0.4** | 8.5 | 1 |
| 0.2 | 2 | 1 | **0.8** | 8.5 | 1 |
| 0.25 | 2 | 1 | **1.2** | 8.5 | 1 |
| 0.35 | 2 | 1 | **4** | 90 | 1 |
| 0.4 | 2 | 1 | **8** | 90 | 1 |