

Feasibility study

Tasks are delegated

Tasks

- Rodger: Chamber master
- Sophie: compares mobility of MC1000 and MG1655
- Joe: Tests the BioBrick protocol
- Jenn: trys to move beads by bacteria
- Tom: helps wherever he can
- Oli: GRN combiner
- Maria: various stuff that is to do

Comparison of the mobility between MC1000 and MG1655

Cambridge 2006

Incubation overnight at 30°C



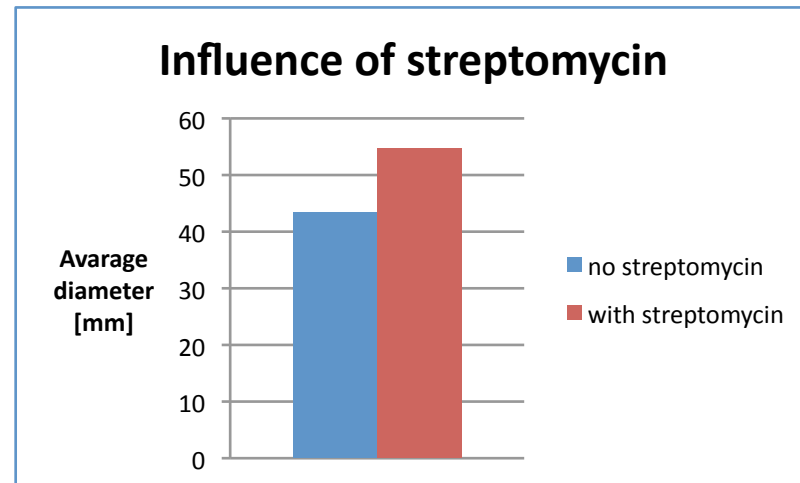
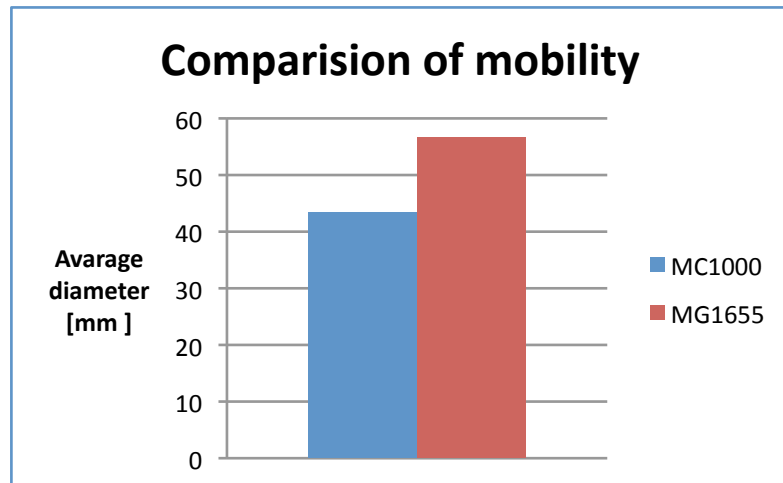
E. coli MC1000
0.5% Bactoagar

E. coli MG1655
0.3% Bactoagar

E. coli XL-1 Blue
0.3% Bactoagar

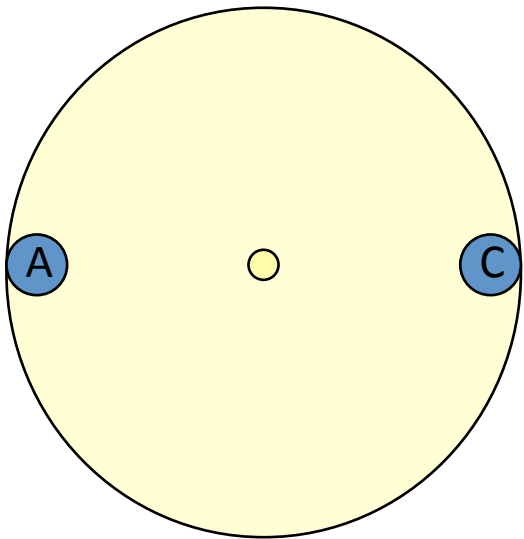
Comparison of the mobility between MC1000 and MG1655

- Inoculation of 10 μ l bacteria solution in wells
- 3 replicates



- Slightly difference of mobility between MC1000 and MG1655
- Streptomycin doesn't inhibit mobility

Chemotaxis

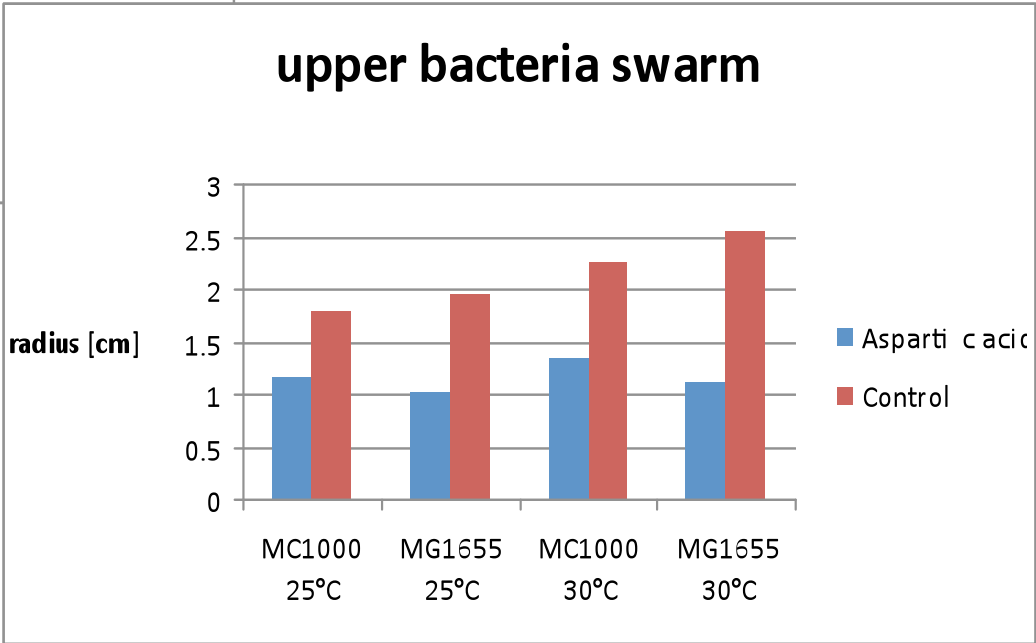
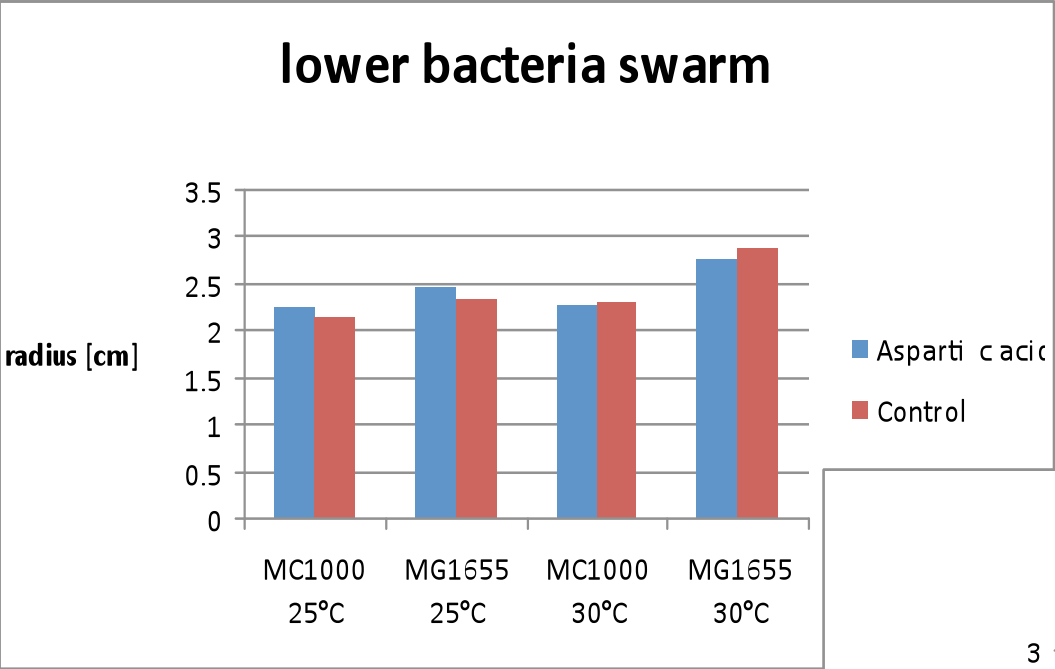


A-10% aprotic acid

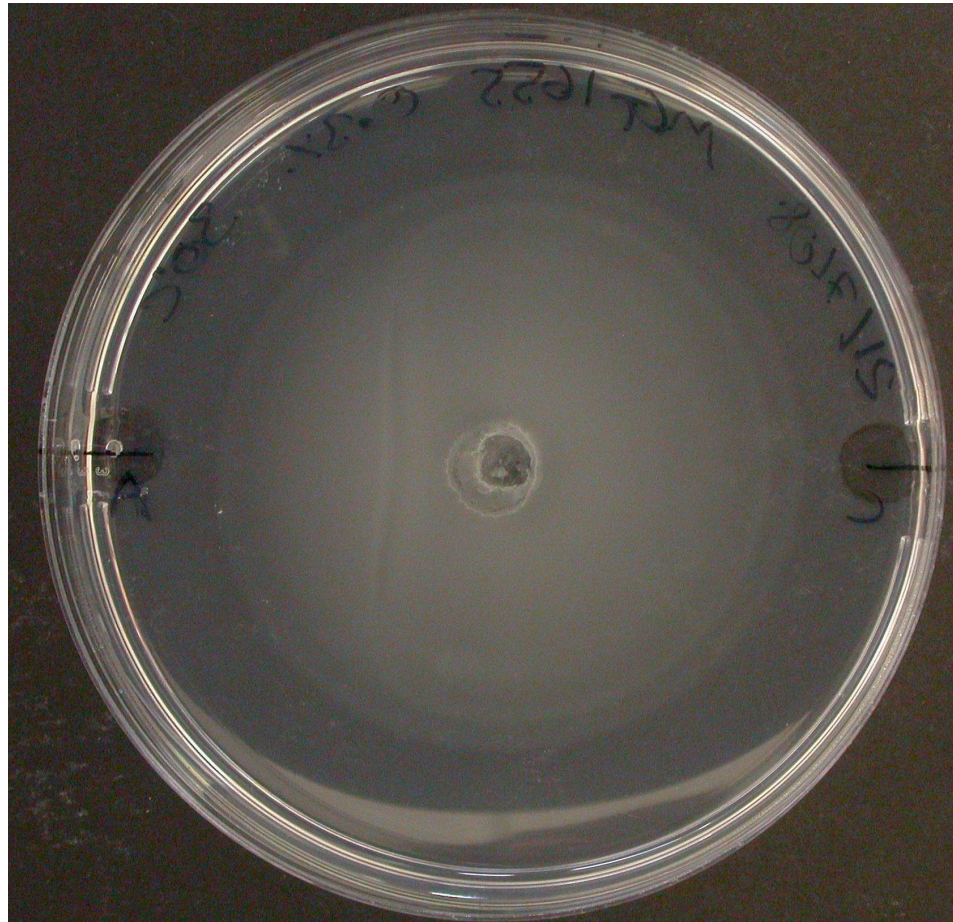
C- Water

●-Bacteria

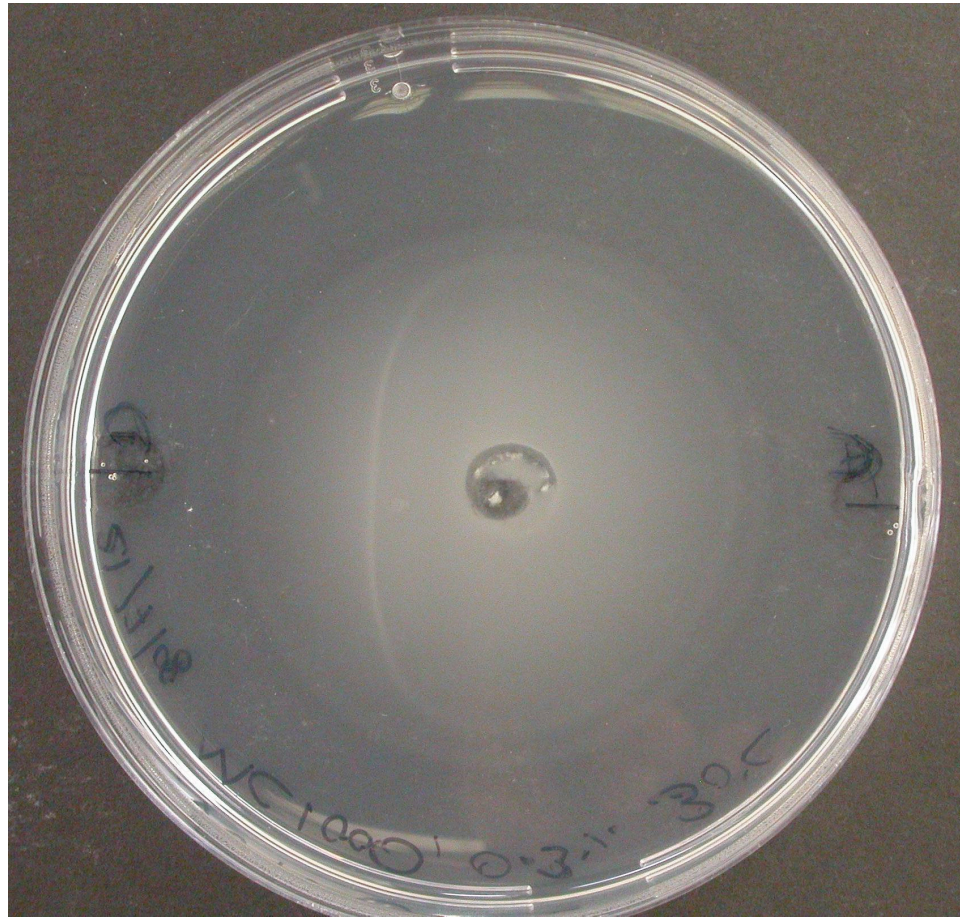
Results



MG1655

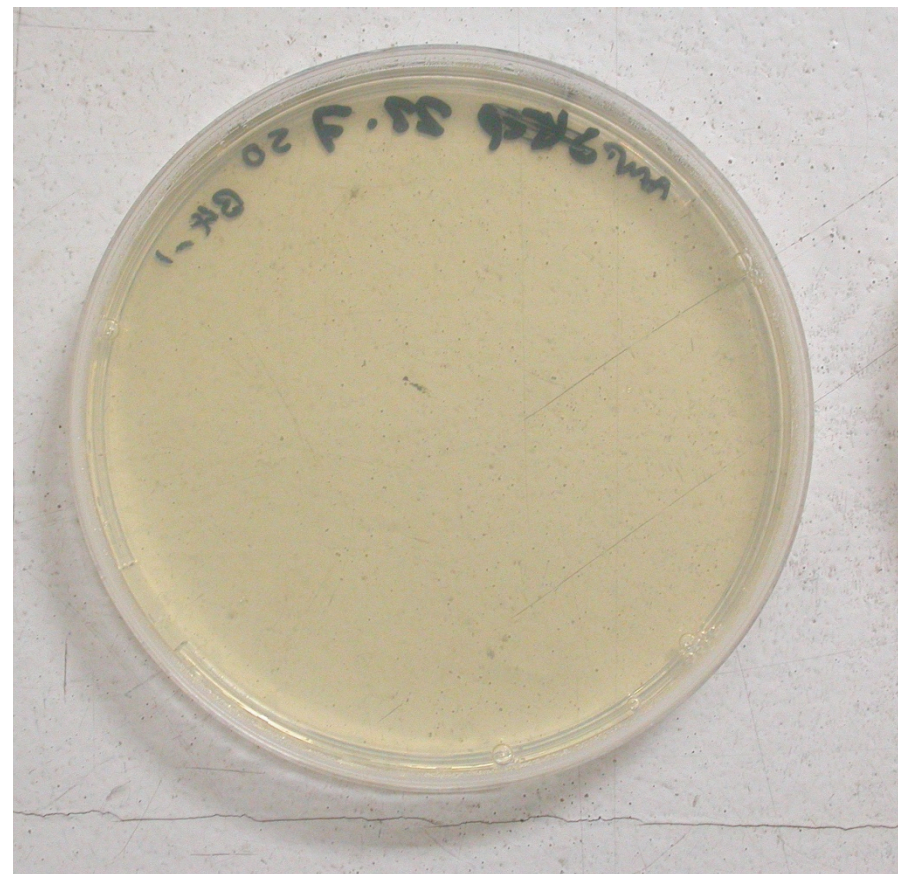
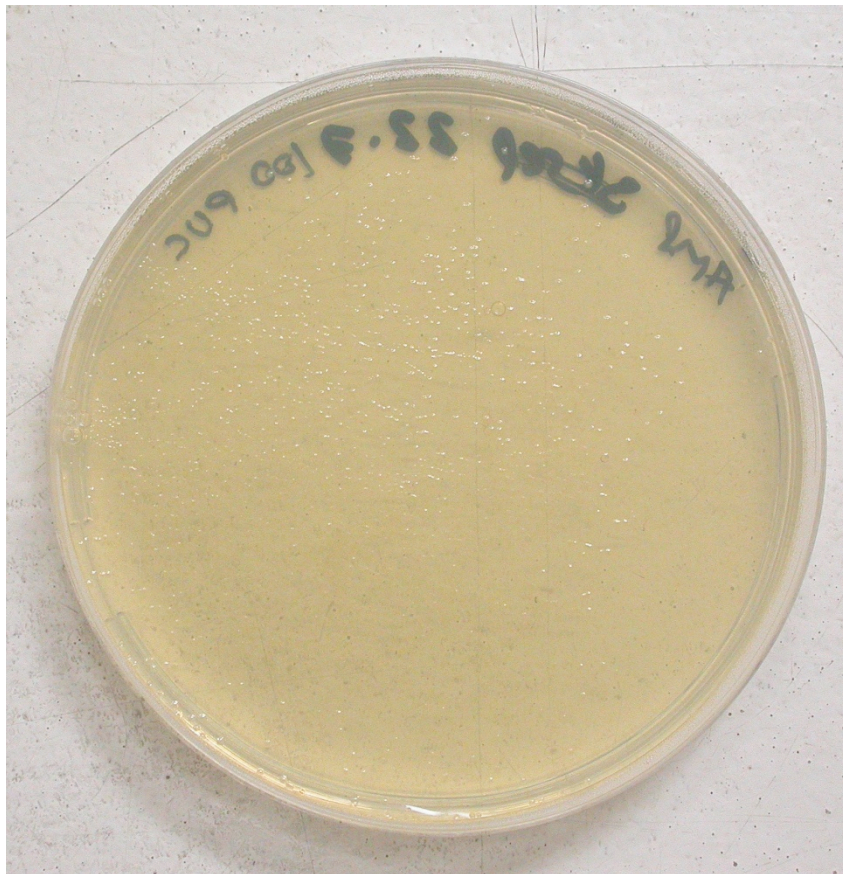


MC1000



Bio Brick

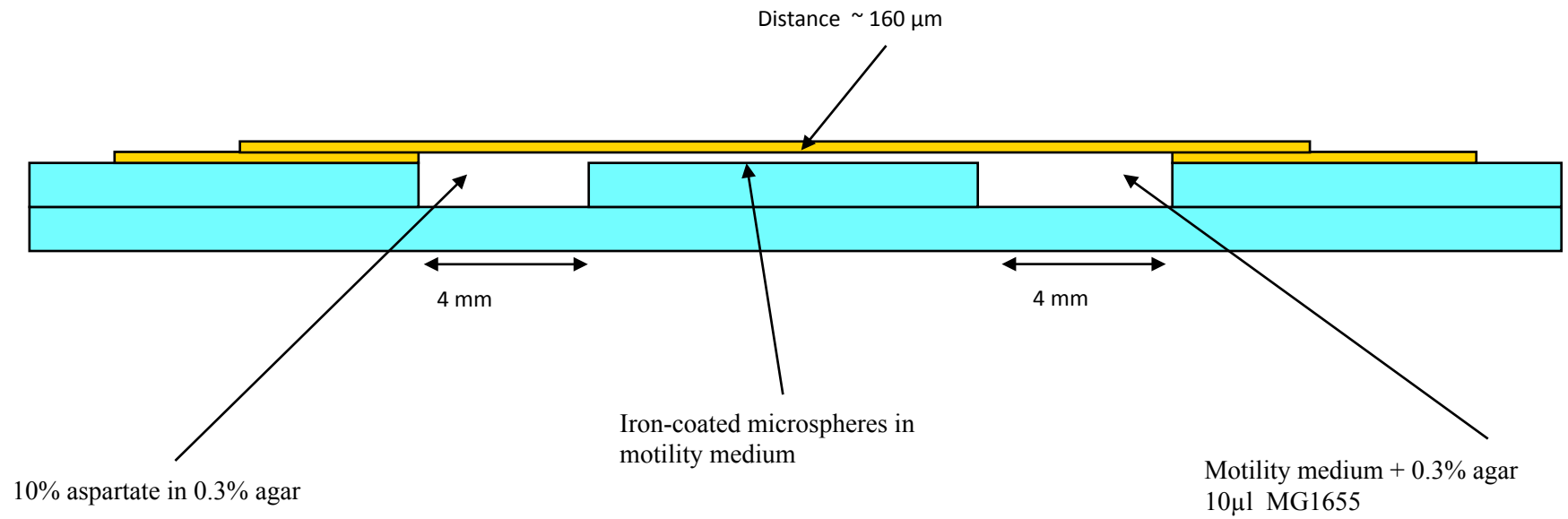
- Transformed DH5 α with biobrick BBa_E0240, for GFP, using given protocol
- Didn't work 1st time, currently trying again



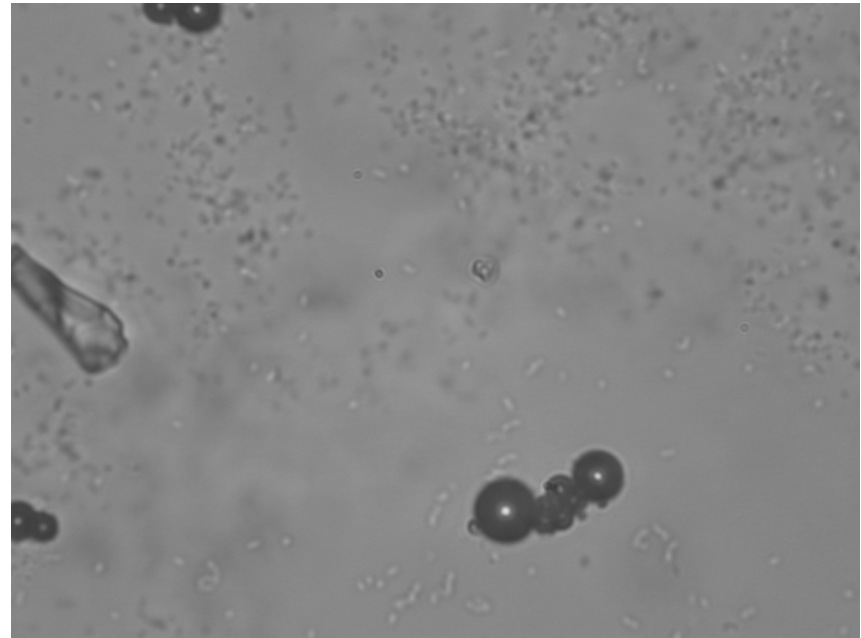
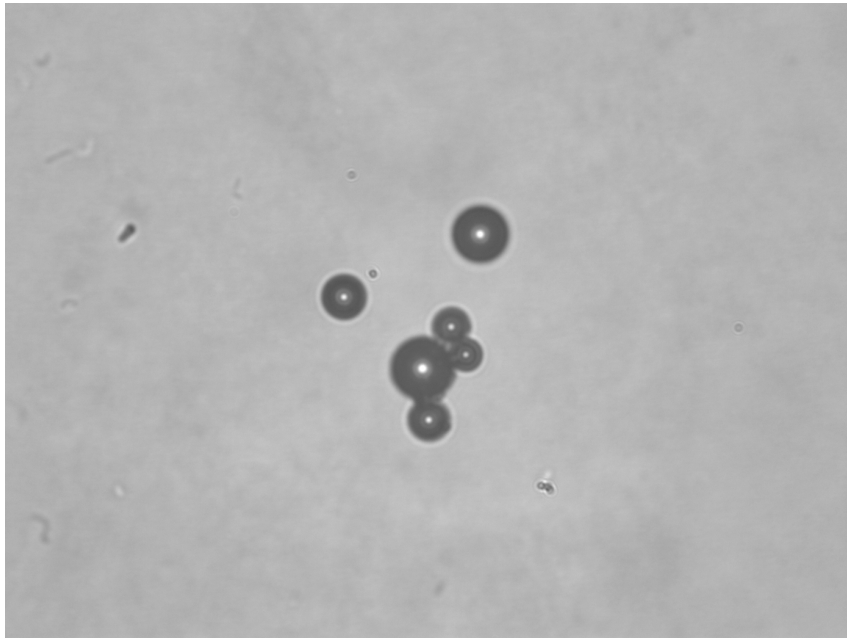
Bead experiment

- Preliminary work:
 - MG1655 in motility medium and 0.05% agar (from Behkam & Sitti)...Medium too fluid.
 - Gold and iron-coated microspheres in motility medium...beads very fragile!
 - Beads and bacteria...very little interaction!

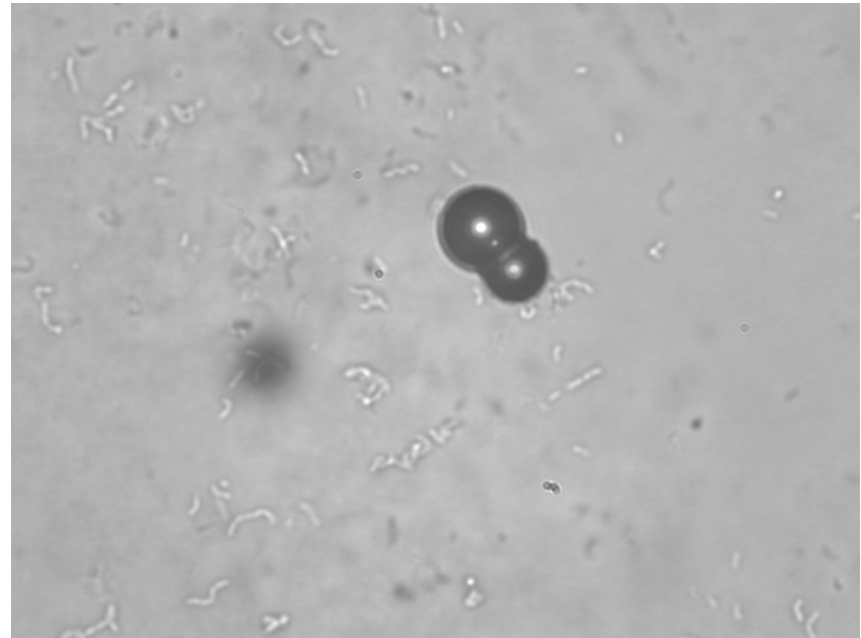
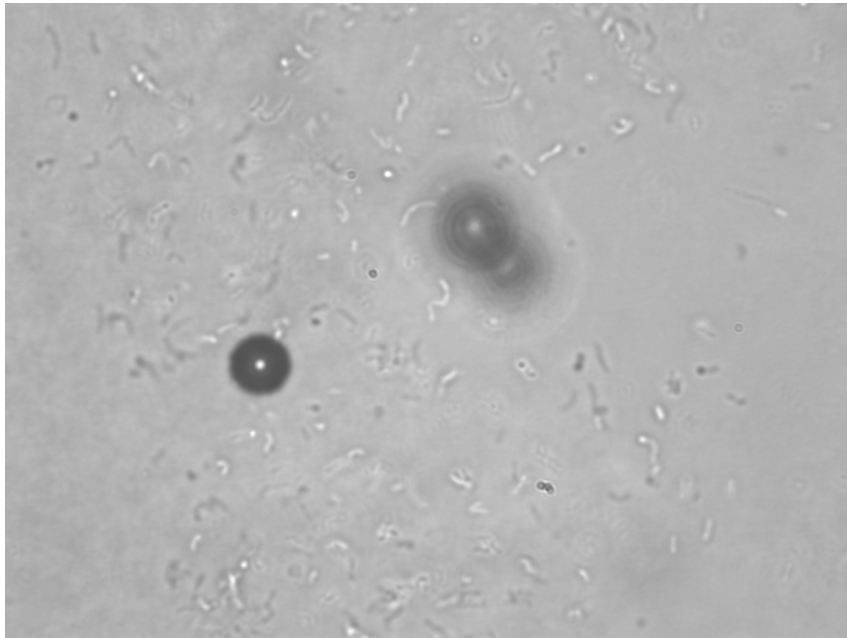
Bead experiment



Bead experiment



Bead experiment



Thanks for your attention!

Growth curves

- Inoculation with 100 μ l (A), 500 μ l (B) and 2 ml (C)

