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Seeding V.1

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In Development

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Bio-X-Space



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MATERIALS TEXT

- Pressure pump.

- Needles

- Microfluidics chip (see design in this link

<https://cad.onshape.com/documents/d01540193290530cad6c1bea/w/108b7d3735006ad86309beb7/e/58c9223ab6c2555e1ce67f02>).

- Shaker.

- 50 ml falcon tubes.

- Centrifuge.

MSgg biofilm-forming medium:

-5 mM potassium phosphate buffer pH 7.0 (0.0536 M K₂HPO₄+ 0.0464M KH₂PO₄).

-100 mM MOPS buffer ;pH 7.0, adjusted using NaOH (10X: 0.2M MOPS free acid+ 0.05M Sodium Acetate+ 0.01M Na₂EDTA).

-2 mM MgCl₂

-700 µM CaCl₂

-50 µM MnCl₂

-100 µM FeCl₃

-1 µM ZnCl₂

-2 µM thiamine HCl

-0.5% (v/v) glycerol

-1X (30 mM) of glutamate.

LB medium:

-1% Bacto tryptoney.

-0.5% Bacto yeast extract.

-1% NaCl.

-1 mM NaOH.

Media were solidified through the addition of Bacto agar (Difco) to 1.5%, and the plates were allowed to dry at 25°C for 16 h before use.

BEFORE STARTING

Make sure to clean all the workspace with alcohol and bleach.

Day before experiment

- 1 Cells from stock were streaked onto LB agar plate and incubated at 37 uC overnight.

Day of the experiment

- 2 A single colony was picked from the plate and inoculated into 3 ml of LB broth in a 50 ml conical tube, and then incubated at 37 uC in a shaker.
- 3 After 2.5 h of incubation, the cell culture was centrifuged at a relative centrifugal force of 2,100 for 1 min.
- 4 The cell pellet was re-suspended in MSgg and then immediately loaded into microfluidics.
- 5 After the loading, cells in the microfluidic chamber were incubated at 37 °C for 90 min, and then the temperature was kept at 30 °C for the rest of the experiment.



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