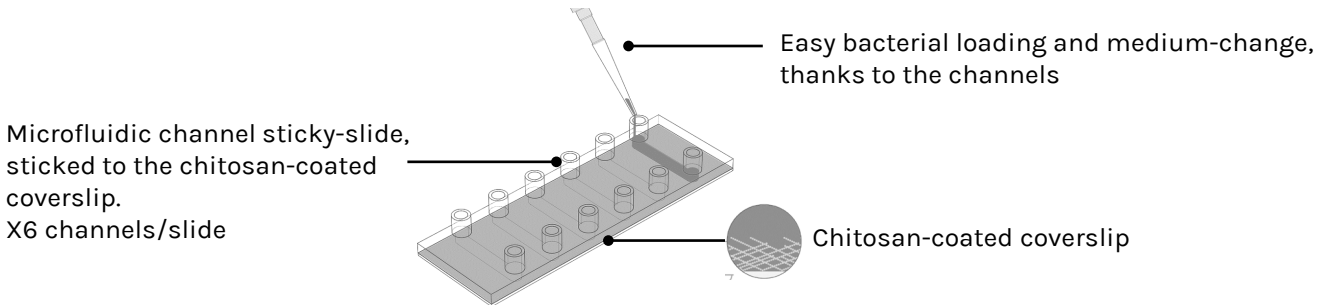


Chitozen

Image bacteria in 2D

Chitozen is composed of chitosan-coated coverslips allowing immobilization and observation of live bacteria under the microscope, without altering their physiology.



Key features

1. High adherence

Maintains bacteria in a similar focal plane for imaging.

2. Preserves cell physiology

The chitosan coating is free from bacteriostatic effects and does not affect bacteria geometry.

3. Perfusable

Change the medium or add compounds throughout experiment to assess real-time changes in bacterial behavior.

4. Time-saving

Test up to 6 parallel conditions on one slide.

Multiple microscopy techniques compatible:



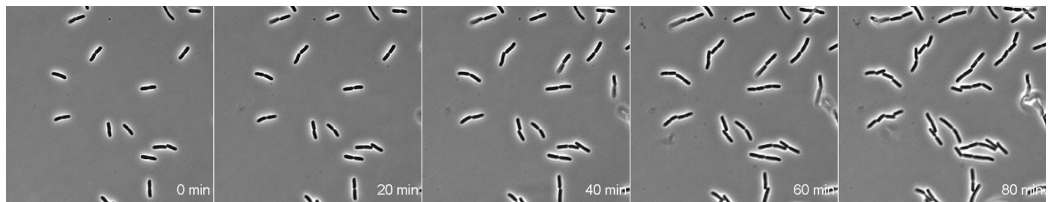
- Phase-contrast
- Epifluorescence
- Confocal
- Super-resolution microscopy
- Atomic force microscopy (AFM)

Results

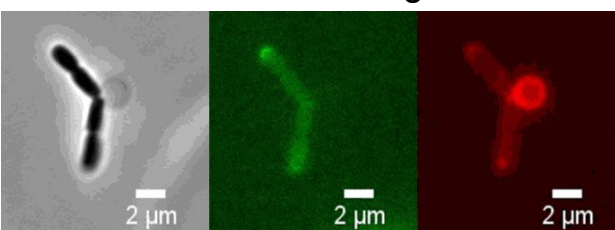
Growth and division of *E. Coli* on Chitozen

In LB medium, for 80min.

Image credit: Amandine Desorme, LCB, CNRS, 2021



Observation of vesicles at septum during cell division of mutant *E. coli* using Chitozen



E. coli strain: W3110 Δ tolR – Palmcherry), in LB $\frac{1}{2}$ medium. Peptidoglycan is labeled with the green fluorophore BADA.

Image credit: Amandine Desorme, LCB, CNRS, 2021

Tracking of DNA repair proteins in live cells of *Escherichia coli*, with TIRF

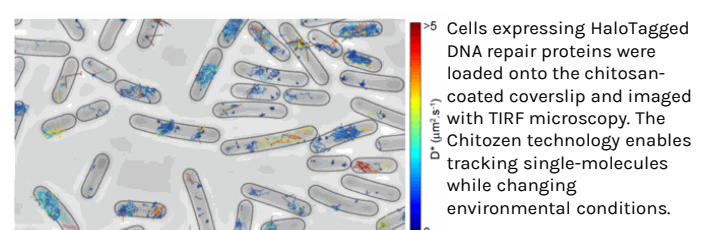


Image credit: Maxence Vincent, University of Oxford, 2022