

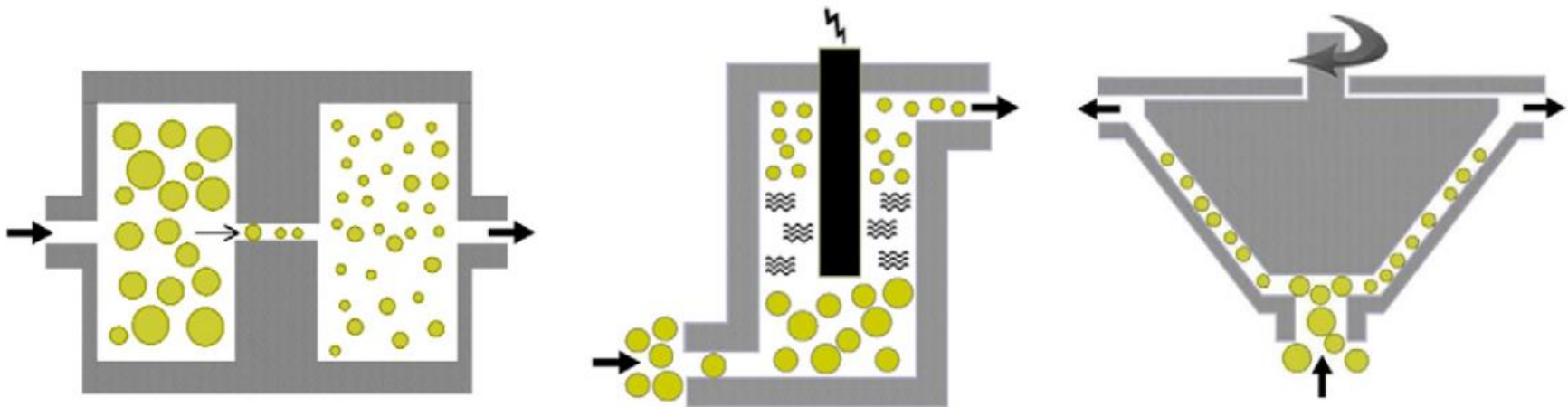
How microfluidic methods can lead to better emulsion products

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Food Valley Expo October 12th 2015

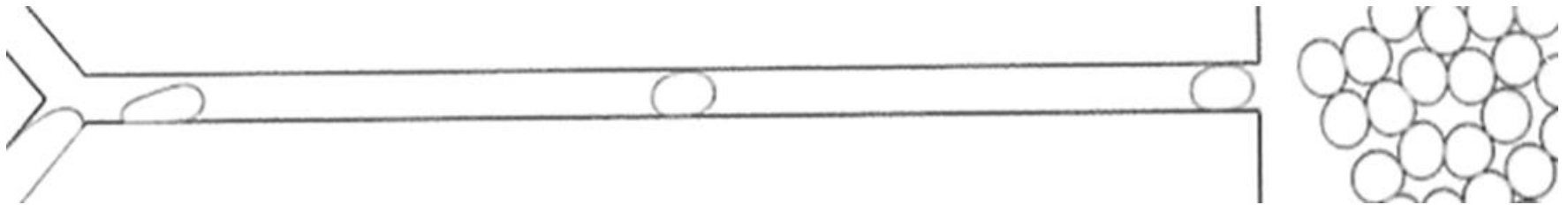


Industrial emulsification

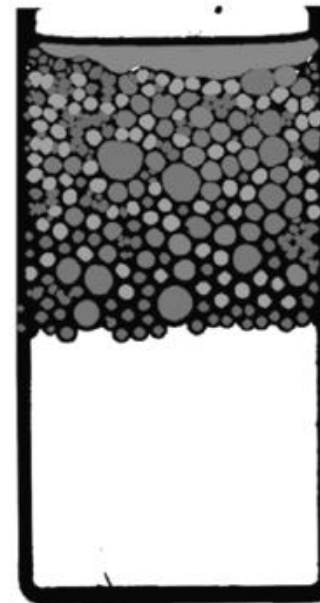
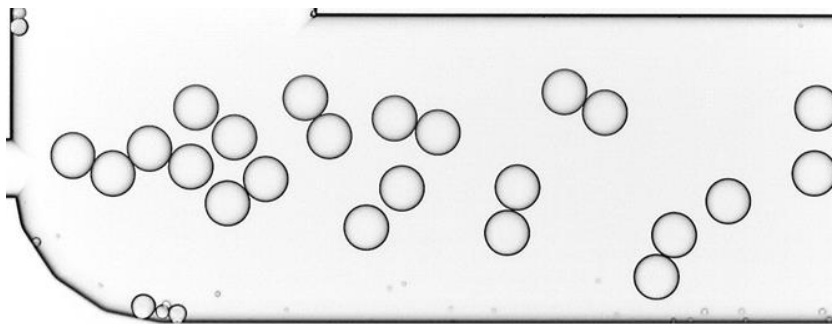


Microfluidic methods

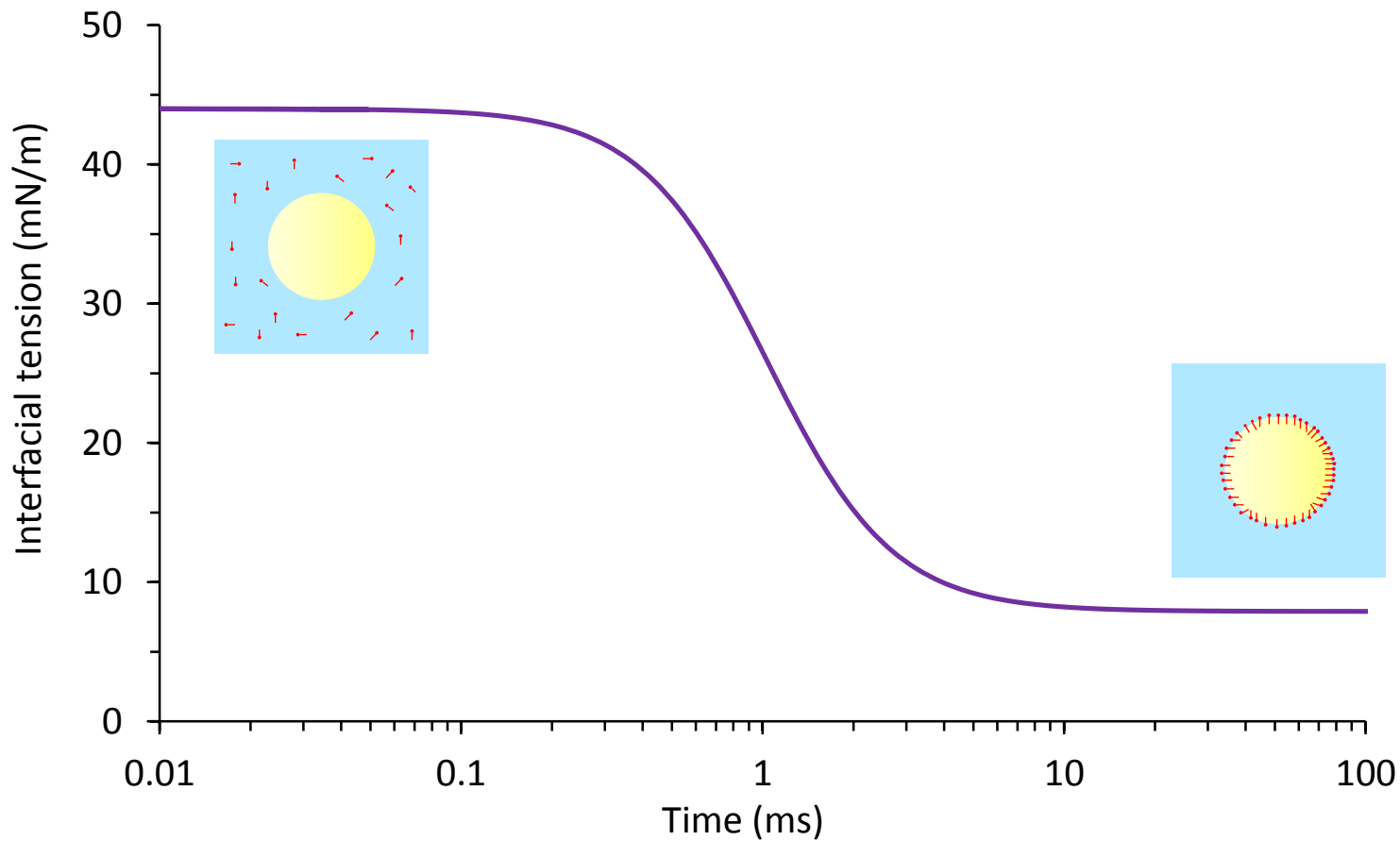
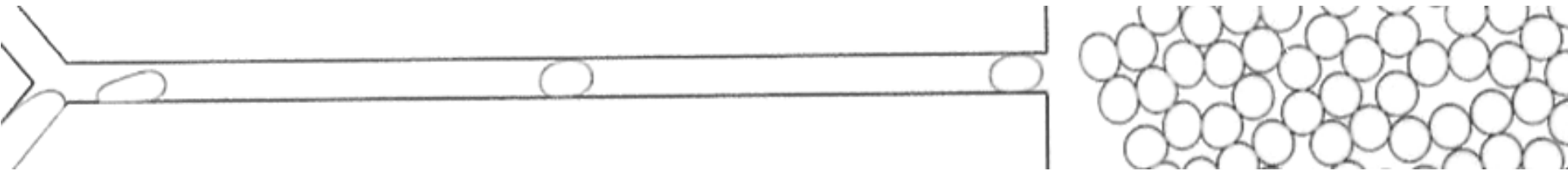
Surfactant adsorption



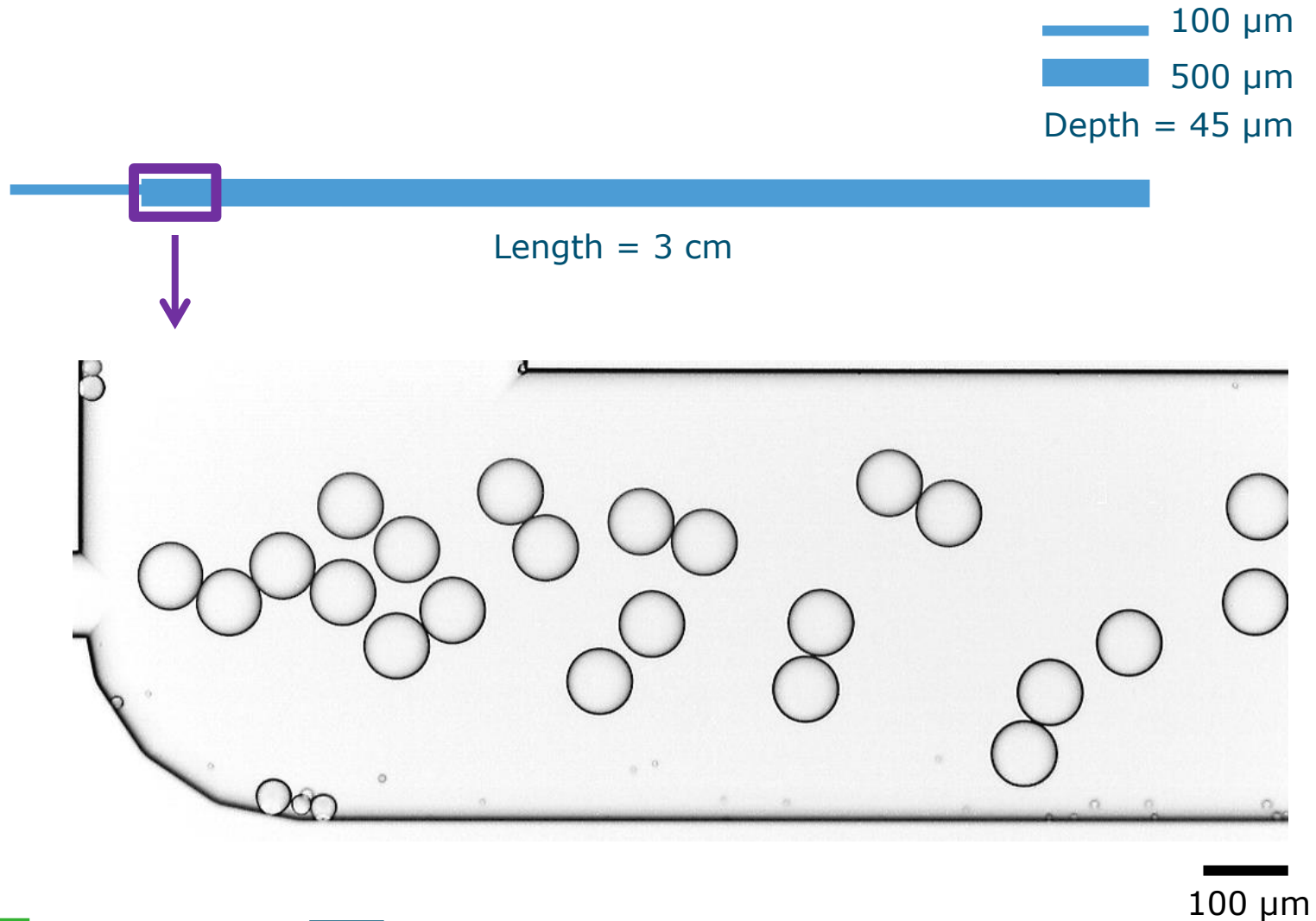
Emulsion stability



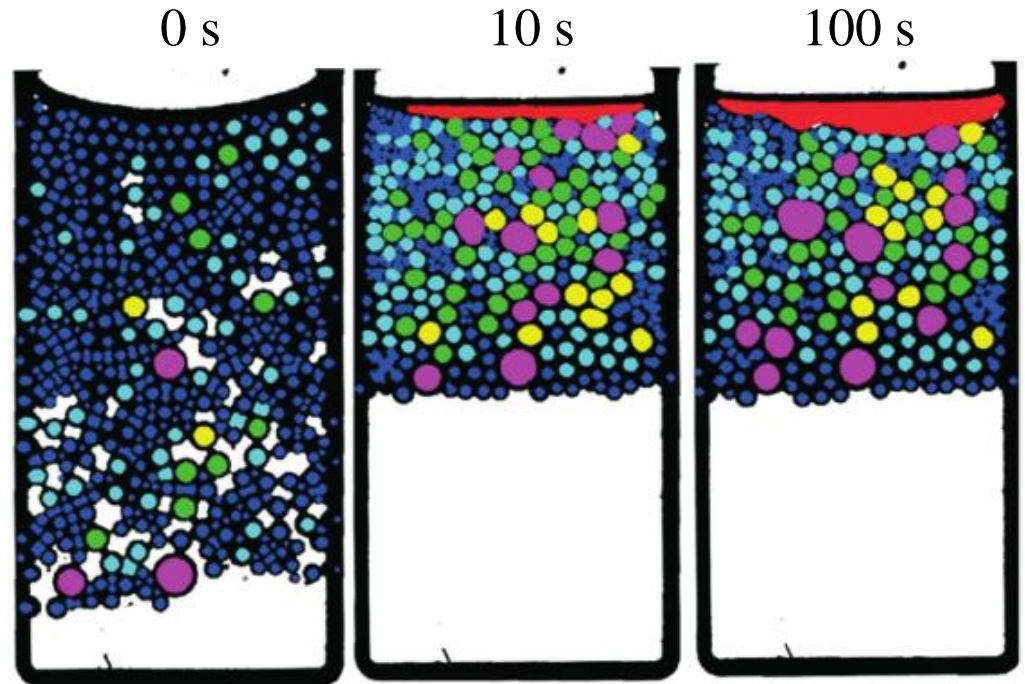
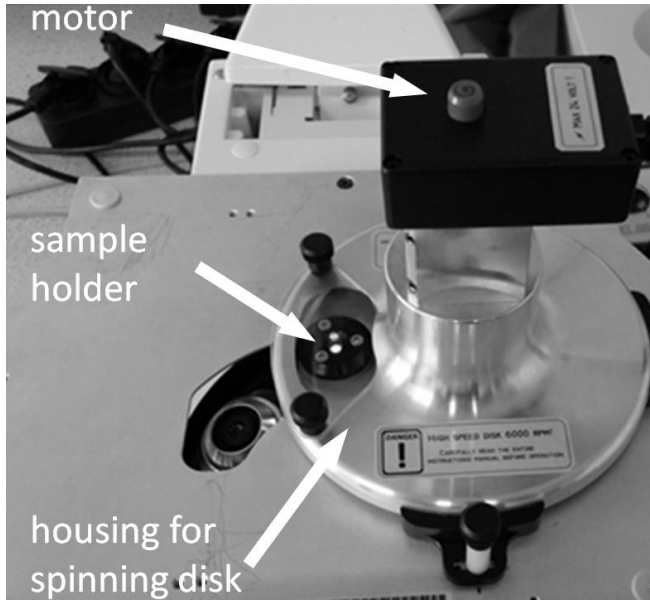
1. Surfactant adsorption – Y-junction



2. Emulsion stability – Coalescence channel

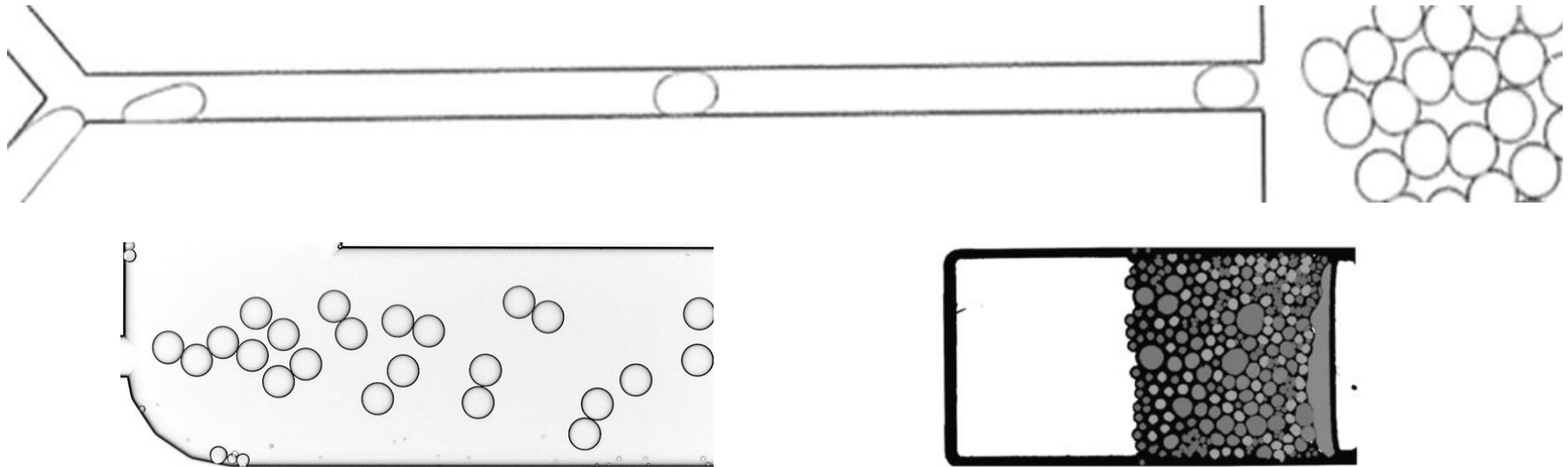


3. Emulsion stability – Microcentrifuge



Radius coloured scale bar (μm) 100 200 300 500 1000 20000 front

Thank you for your attention



Acknowledgements

Maartje Steegmans

Thomas Krebs

See also: Schroën, K., Bliznyuk, O., Muijlwijk, K., Sahin, S., & Berton-Carabin, C. C. (2015). Microfluidic emulsification devices: from micrometer insights to large-scale food emulsion production. *Current Opinion in Food Science*, 3, 33–40.