

## Description of Additional Supplementary Files

Title: Supplementary Movie 1

Description: Upward droplet motion

Title: Supplementary Movie 2

Description: Leftward droplet motion

Title: Supplementary Movie 3

Description: Downward droplet motion

Title: Supplementary Movie 4

Description: Addition of PEG-rich phase into the emulsion system.

Title: Supplementary Movie 5

Description: Addition of DEX-rich phase into the emulsion system.

Title: Supplementary Movie 6

Description: Chasing process of two moving droplets.

Title: Supplementary Movie 7

Description: Droplet motion without liposomes