

*Supplementary information*

# **Chitin Nanofibrils Enabled Core–Shell Microcapsules of Alginate Hydrogel**

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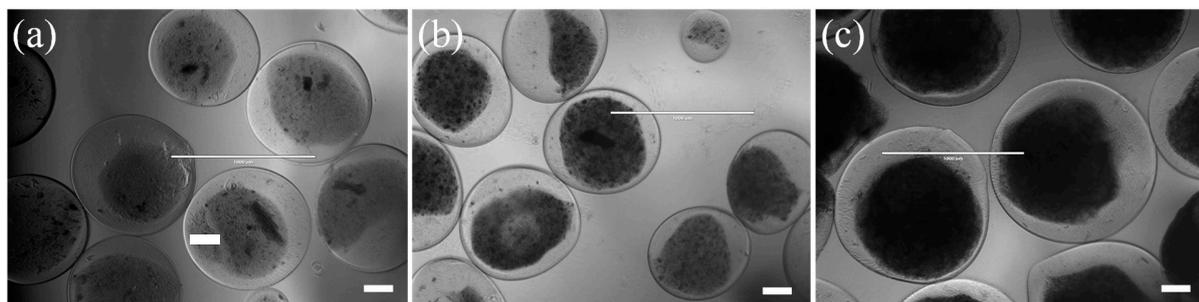


Figure S1. Morphology of core-shell microcapsules at different composition. Optical images of microcapsules with different ratios of alginate/chitin at the core, (a) 90/10, (b) 80/20, (c) 60/40. Shell composition was 1% w/v of alginate and flow rate of 3 mL/h at applied voltage 5 kV. Short view scale bar =200  $\mu\text{m}$ .

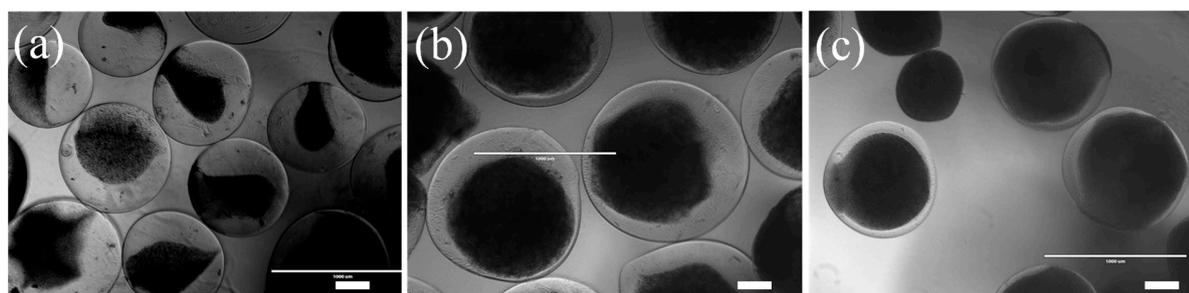


Figure S2. Morphology of core-shell microcapsules at different flow rates. Optical images of microcapsules (alginate/chitin (60/40)) at applied voltage of 5 kV with flow rate of (a) 1 mL/h, (b) 3 mL/h, and (c) 6 mL/h. Shell composition was 1% w/v of alginate. Short view scale bar =200  $\mu\text{m}$ .

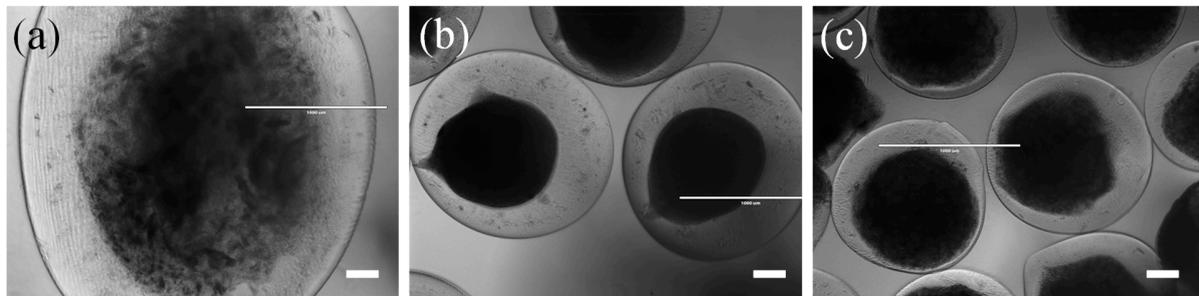


Figure S3. Morphology of core-shell microcapsules at different voltages. Optical images of microcapsules of alginate/chitin (60/40) with flow rate of 3 mL/h at different applied voltage (a) 1 kV, (b) 5 kV, and (c) 8 kV. Shell composition was 1% w/v of alginate. Short view scale bar = 200  $\mu\text{m}$ .

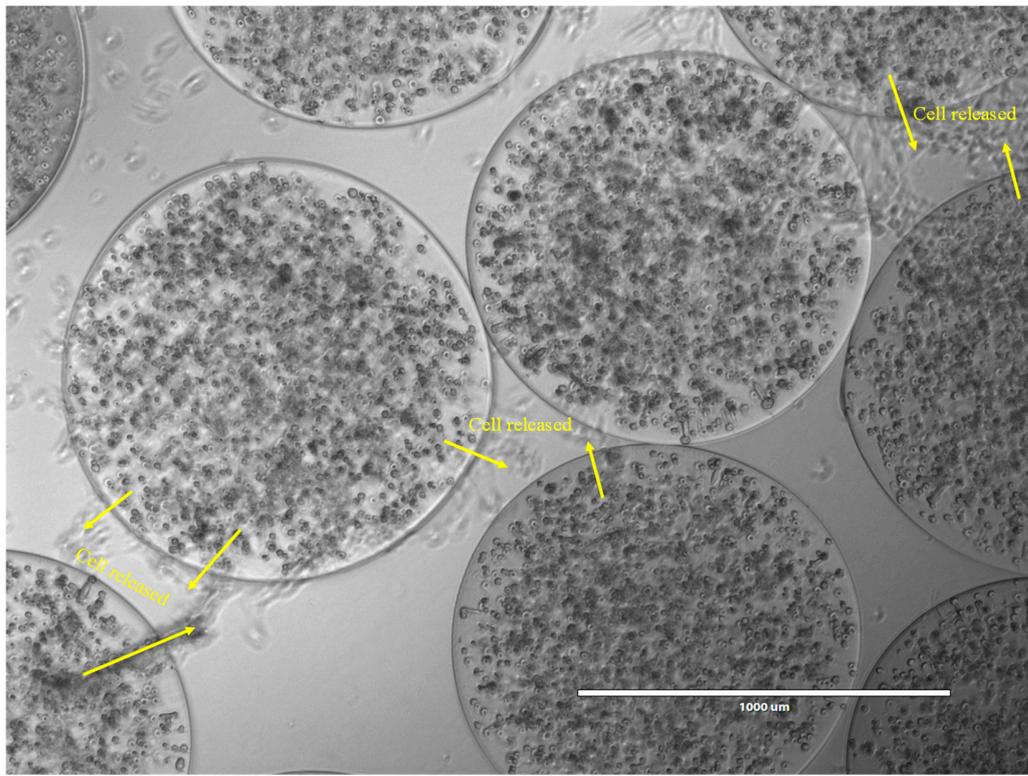


Figure S4. In vitro cell culture with monolithic microcapsules. Microscopy images of NIH/3T3 cells encapsulated alginate microcapsules at day 9.