Electronic Supplementary Material (ESI) for Soft Matter.

Multi-Layer 3D Printed Low Molecular Weight Gels

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Supporting Information

Sample holder

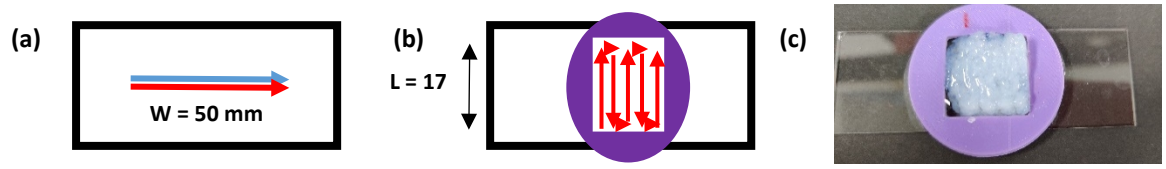

Figure S1. Schematic diagrams for printed (a) confocal and (b) rheological samples. (c) Example of gel 3D printed in custom holder.

Rheology

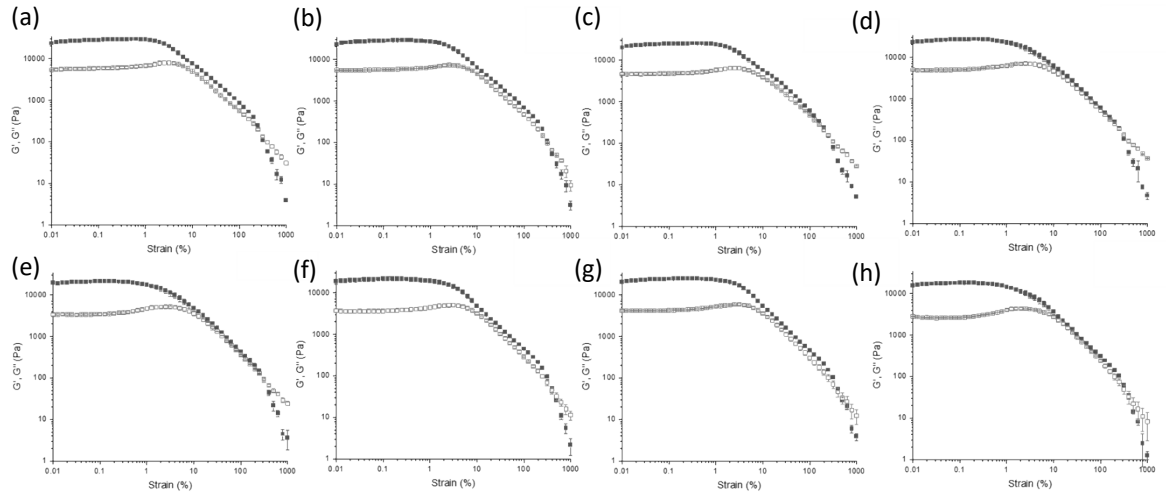

Figure S2. Strain sweeps for non-printed multi-layered gel samples (a) **1** (b) **2** (c) **3** (d) **4** (e) **5** (f) **6** (g) **7** (h) **8**. G′ is represented by filled shapes and G″ hollow shapes. Measurements were carried out on samples prepared in triplicate, with error bars representing the standard deviation derived from averaging the three subsequent results.

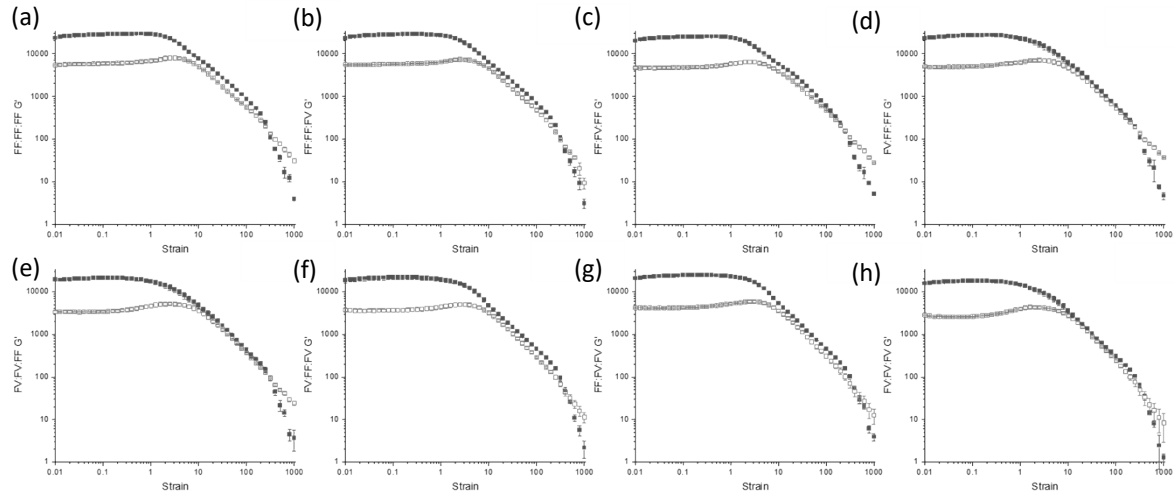

Figure S3. Strain sweeps for printed multi-layered gel samples (a) **1** (b) **2** (c) **3** (d) **4** (e) **5** (f) **6** (g) **7** (h) **8**. G′ is represented by filled shapes and G″ hollow shapes. Gels were printed at 4 µL/mm and a shear rate (γ) of 1500 s^{-1}. Measurements were carried out on samples prepared in triplicate, with error bars representing the standard deviation derived from averaging the three subsequent results.

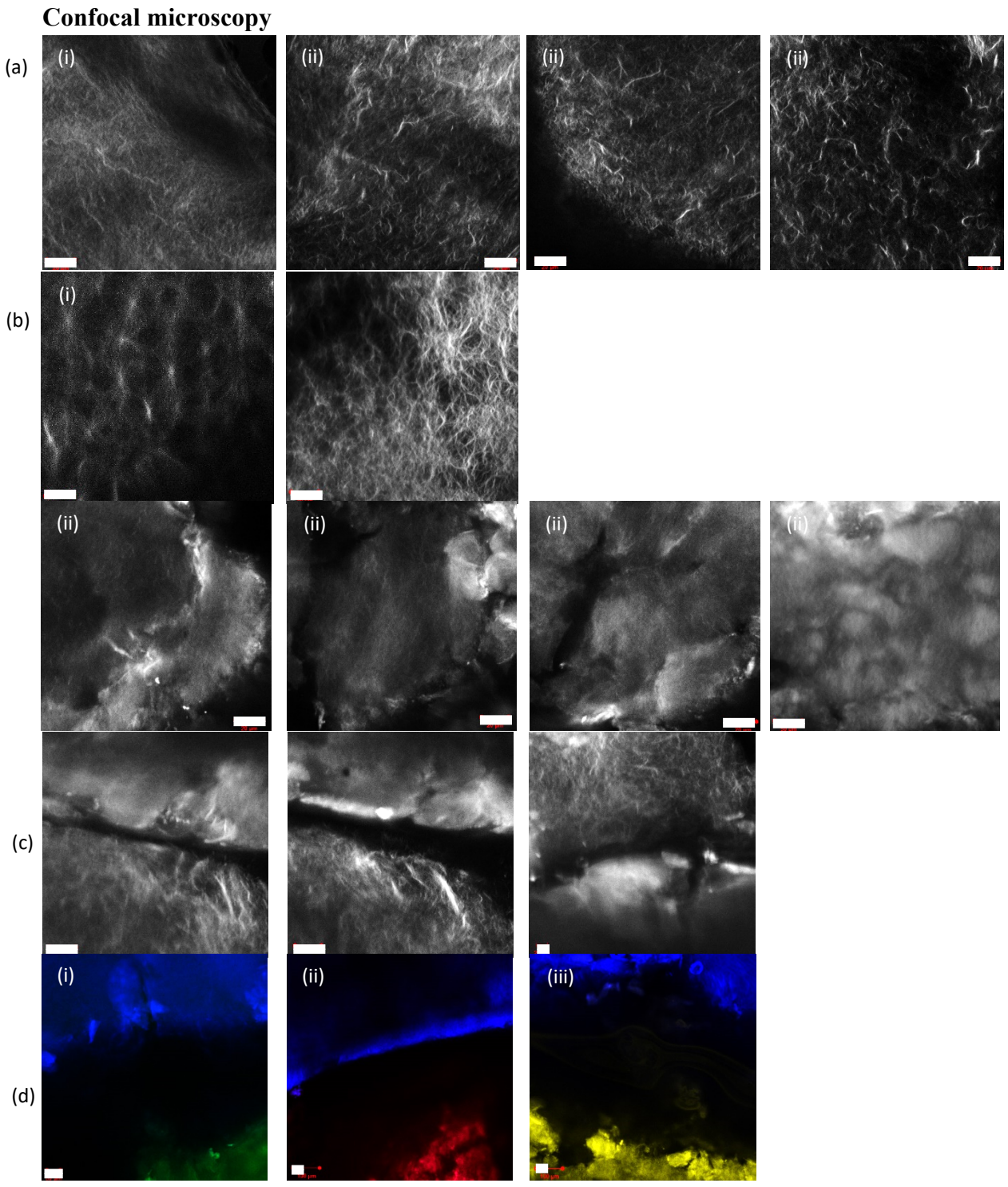

Figure S4. (a) and (b) show confocal microscopy images of (i) unprinted and (ii) printed (4 µL/mm), (a) 2NapFV and (b) FmocFF gels (5 mg/mL, φ DMSO 0.2). (c) and (d) show confocal microscopy images of 2NapFV (top) and FmocFF (bottom) gels (5 mg/mL, φ DMSO 0.2) printed (4 µL/mm) alongside one another with Nile Blue (top) and (c) Nile Blue, (d) (i) Fluorescein, (ii) Nile Red and (iii) Thioflavin T (bottom) dyes incorporated. Black and white images show gels only containing Nile Blue dye. All dyes were incorporated at 2 µL/mL at 0.1 wt%. Scale bars (white) represent 20 µm.