

*Supplementary Materials*

# Precision Engineering of Chondrocyte Microenvironments: Investigating the Optimal Reaction Conditions for Type B Gelatin Methacrylate Hydrogel Matrix for TC28a2 Cells

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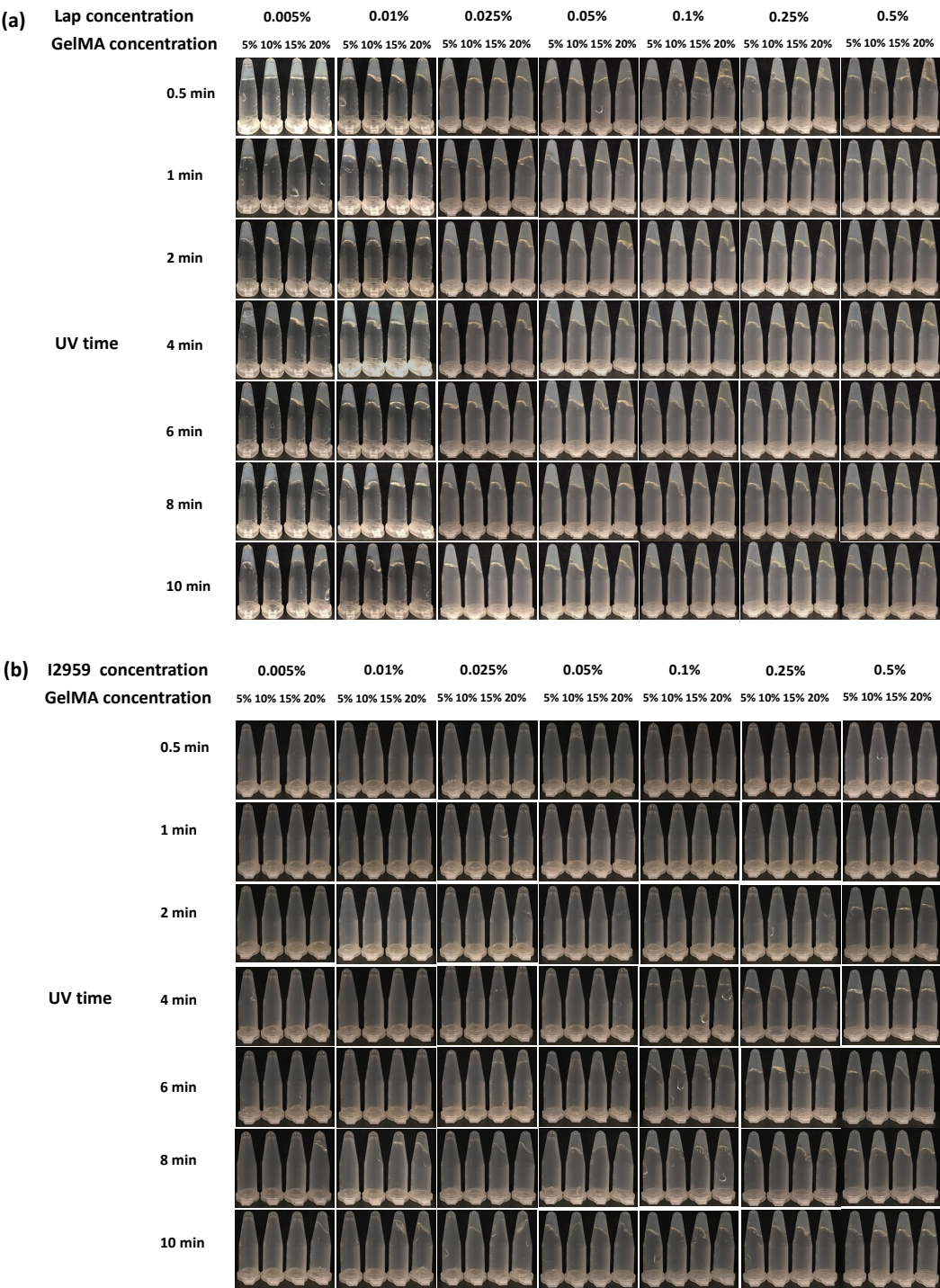
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**Figure S1.** Gelation of GelMA precursor across various conditions with (a) photoinitiator LAP and (b) photoinitiator Irgacure 2959.

**Table S1.** Tissue processing steps for paraffin sections.

Step	Time (h)	Temperature (°C)
4% PFA Fixation	24	20-22
70% EtOH	1	20-22
80% EtOH	0.75	20-22
95% EtOH	0.75	20-22
95% EtOH	1	20-22
100% EtOH	1	20-22

100% EtOH	1	20-22
100% EtOH	1	20-22
Xylene	1	20-22
Xylene	1	20-22
Xylene	1	20-22
Paraplast®	2	56
Paraplast®	1	56
Paraplast®	1	56

**Table S2.** H&E staining steps.

Step	Time (min)	Frequency
Xylene	3	3 X
100% EtOH	3	3 X
95% EtOH	3	1 X
80% EtOH	3	1 X
diH <sub>2</sub> O	5	1 X
Hematoxylin Solution	3	1 X
diH <sub>2</sub> O	2	1 X
Running Tap H <sub>2</sub> O	5	1 X
diH <sub>2</sub> O Rinse	2	1 X
Eosin Solution	2	1 X
95% EtOH	3	3 X
100% EtOH	3	3 X
Xylene	15	3 X

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