

Supporting Information

Designer Hydrogel with Intelligently Switchable Stem-Cell-Contact for Incubating Cartilaginous Micro-tissues

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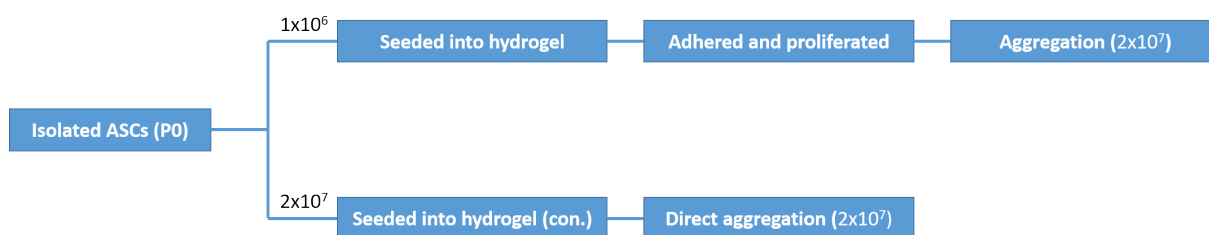


Figure S1. Scheme of induction duration and seeding cell density.

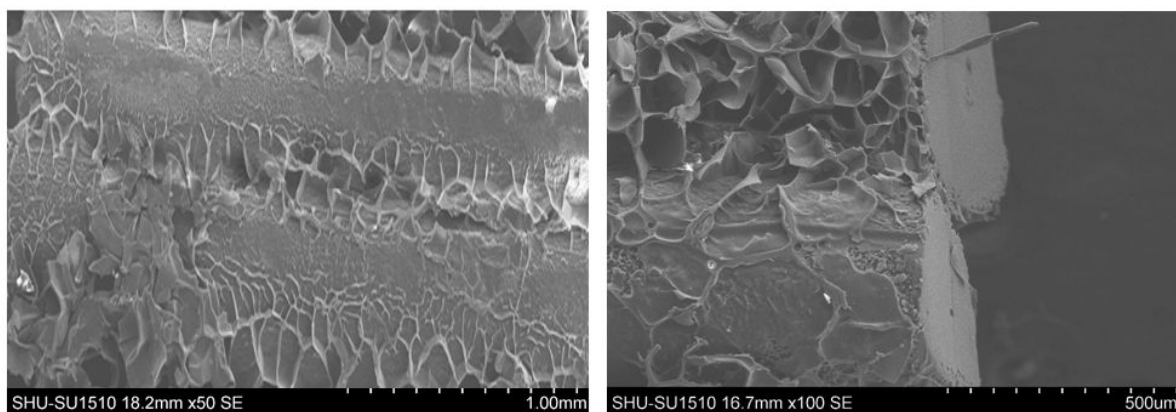


Figure S2. SEM images of PLA rods inlaid in hydrogel matrix.

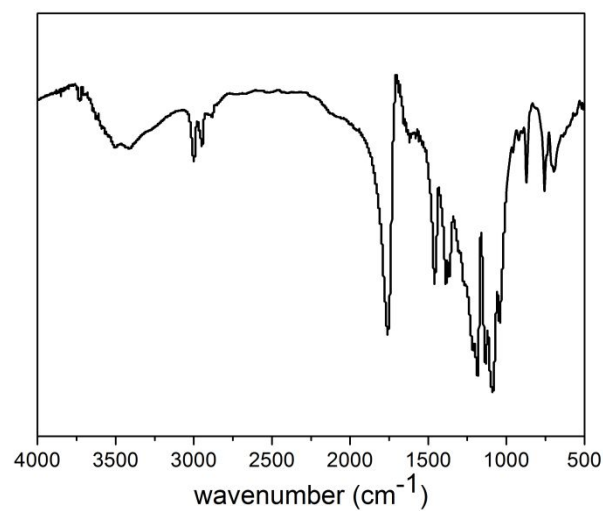


Figure S3. FT-IR of the molecule collected from reducing solution.

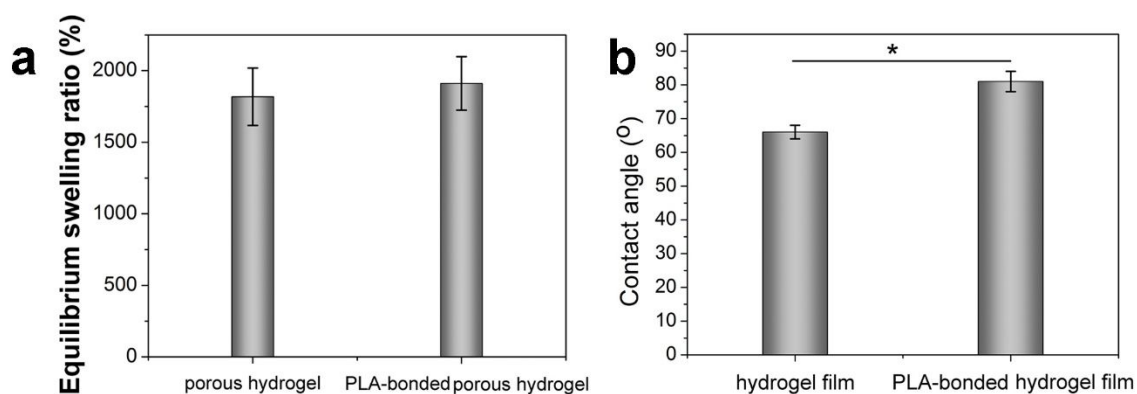


Figure S4. Equilibrium swelling ratio of poly (L-glutamic acid)/ADH porous hydrogel and PLA-bonded poly (L-glutamic acid)/ADH porous hydrogel (a). And their equilibrium swelling ratio showed no significant difference; Contact angle of poly (L-glutamic acid)/ADH hydrogel film and PLA-bonded poly (L-glutamic acid)/ADH hydrogel film (b). Poly (L-glutamic acid)/ADH hydrogel film showed the contact angle of 66°, while PLA-bonded poly (L-glutamic acid) /ADH hydrogel film was significantly more hydrophobic, showing the contact angle of 81°. * $p < 0.05$.

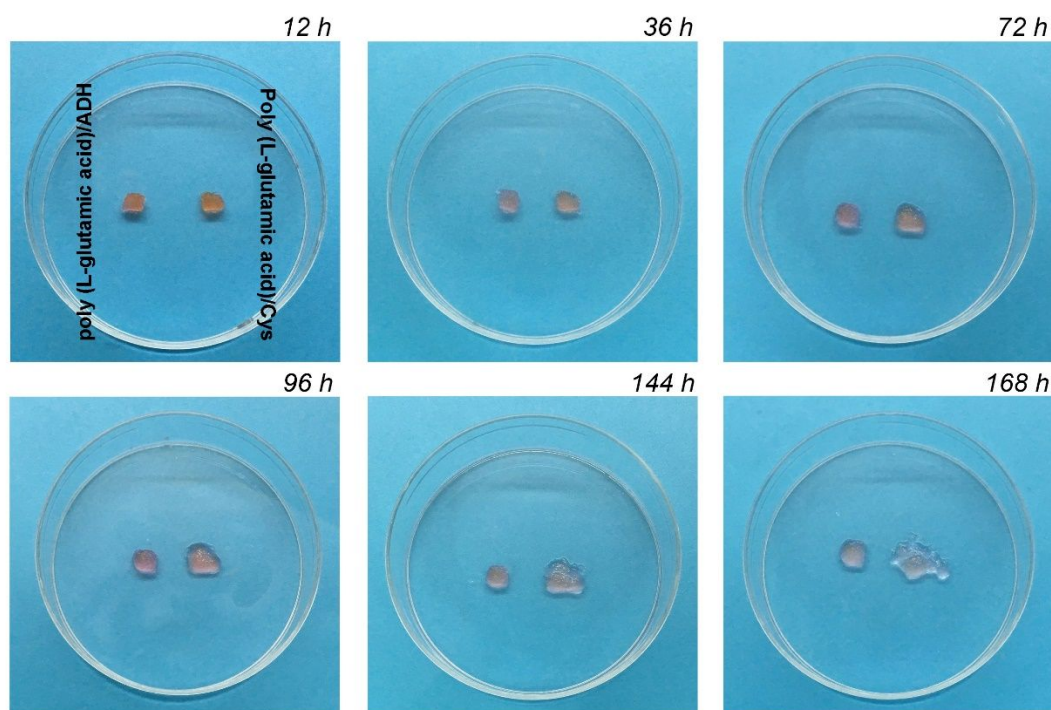


Figure S5. Poly (L-glutamic acid)/Cys porous hydrogel degraded significantly along with ASCs in vitro culture. However, poly (L-glutamic acid)/ADH porous hydrogel containing ASCs that cultured in the same dish was stable.

Table S1. Molecular weight and Polydispersity of PLA

	Mn		PDI	
	Before aminolysis	Detached from hydrogel	Before aminolysis	Detached from hydrogel
PLA(i)	88046	21335	1.50	2.39
PLA(ii)	172684	72578	1.57	2.67