Supporting Information

Mechanically and Electrically Enhanced CNT–Collagen Hydrogels As Potential Scaffolds for Engineered Cardiac Constructs

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Figures



Supplementary Figure 1. Pore sizes of pure collagen hydrogels and CNTs-collagen hydrogels with different loading levels of CNTs. (A) Pure collagen group; (B-E) CNTs-collagen groups with 1, 2, 5, and 10 wt %. All the collagen concentration is 2 mg/mL; and (F) dense collagen group with collagen concentration of 4 mg/mL.

No significant change was observed in pore size of CNTs-collagen hydrogels up to CNTs loading level of 10 wt % compared to the pure collagen hydrogels. Increasing the gel concentration could significantly decrease the pore size of the hydrogel.



Supplementary Figure 2. Schematic diagram of tailor-made electrodes for electrical testing of CNTs–collagen hydrogels.

Tailored electrodes are made to test the electrical properties of CNTs-collagen hydrogels. Al electrodes with a diameter of 8 mm and a distance of 1 mm are fixed on laser engraved polymethyl methacrylate (PMMA) plates. During electrical testing, hydrogel samples were placed between two opposite electrodes with reliable contact.