

## Supporting Information

### **Engineering adhesive and antimicrobial hyaluronic acid/elastin like polypeptide hybrid hydrogels for tissue engineering applications**

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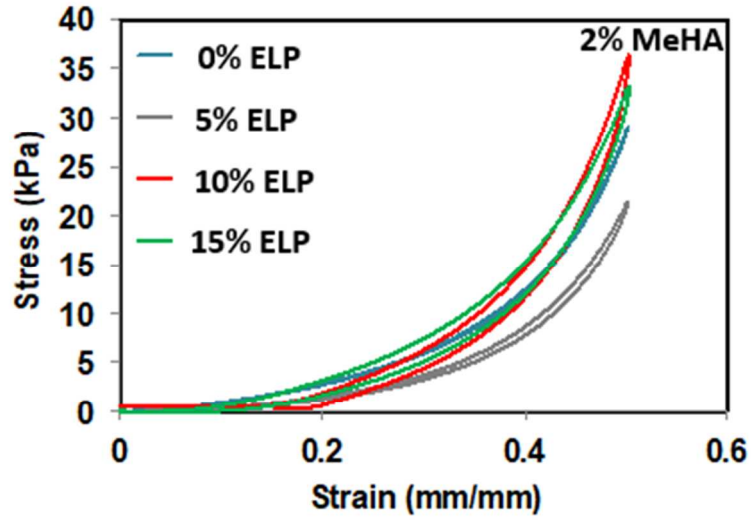
The file includes:

**Figure S1.** Representative compressive cyclic stress–strain curves of MeHA/ELP hydrogels produced by using different ELP concentrations and 2% MeHA.

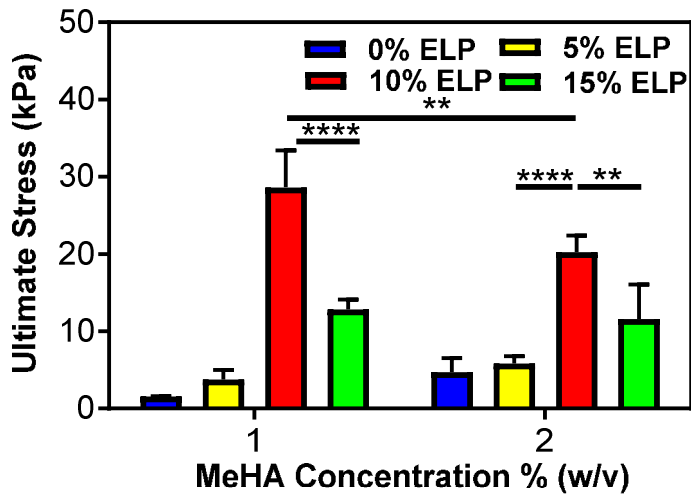
**Figure S2.** Ultimate tensile stress of MeHA/ELP hydrogels produced using different MeHA and ELP concentrations.

**Figure S3.** Swelling properties of photocrosslinked MeHA/ELP composite hydrogels.

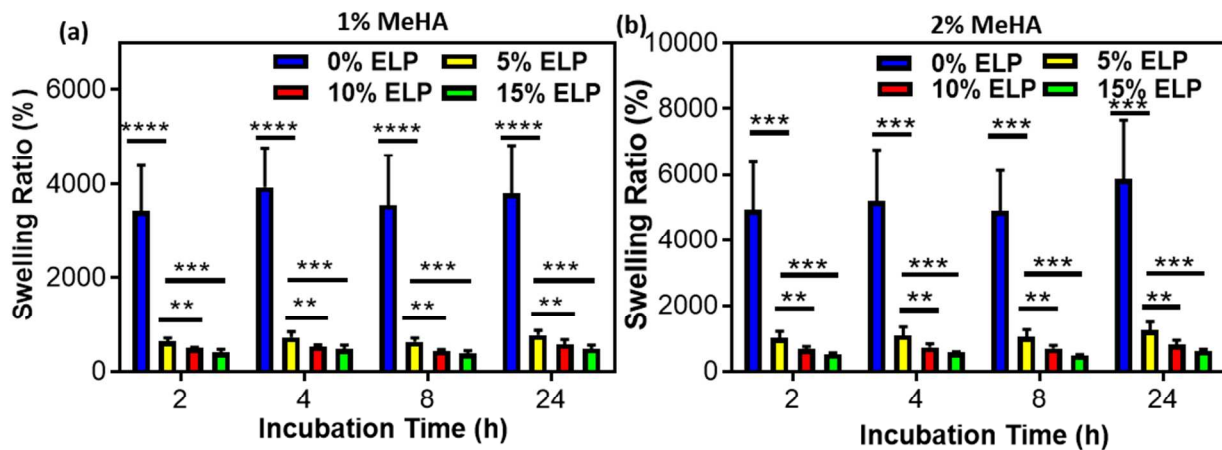
**Figure S4.** *In vitro* cytocompatibility of MeHA/ELP and MeHA/ELP-ZnO hydrogels.



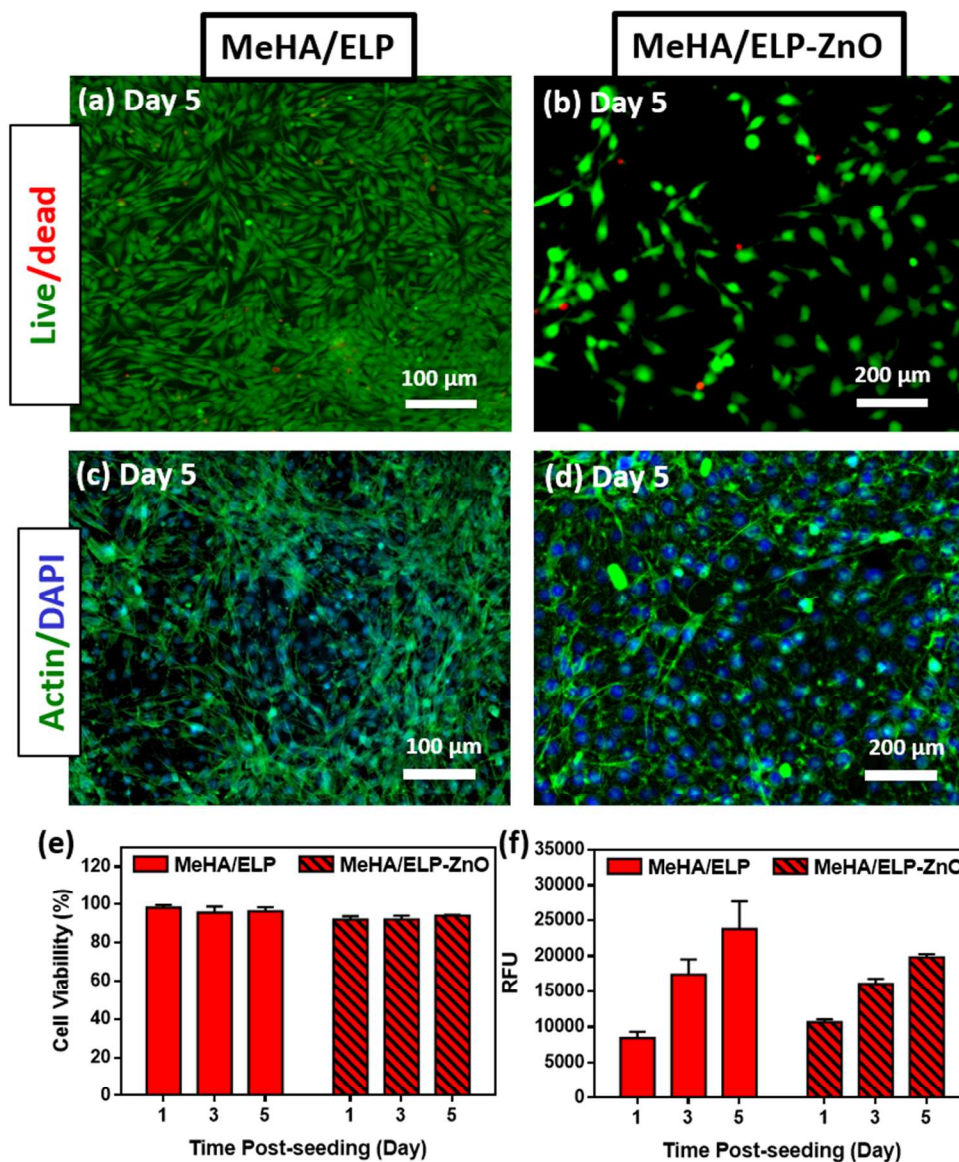
**Figure S1.** Representative compressive cyclic stress–strain curves of MeHA/ELP hydrogels produced by using different ELP concentrations and 2% MeHA.



**Figure S2.** Ultimate tensile stress of MeHA/ELP hydrogels produced using different MeHA and ELP concentrations.



**Figure S3. Swelling properties of photocrosslinked MeHA/ELP composite hydrogels.** Swelling ratios of hydrogel produced by using various ELP concentrations and (a) 1% or (b) 2% (w/v) MeHA at 37 °C in DPBS (\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , \*\*\*\*  $p < 0.0001$ ).



**Figure S4. *In vitro* cytocompatibility of MeHA/ELP and MeHA/ELP-ZnO hydrogels.** Representative live/dead images from NIH-3T3 cells seeded on (a) MeHA/ELP and (b) MeHA/ELP-ZnO hydrogels after 5 days of seeding. Representative phalloidin (green)/DAPI (blue) stained images from NIH-3T3 cells seeded on (c) MeHA/ELP and (d) MeHA/ELP-ZnO hydrogels after 5 days of culture. Quantification of (e) viability and (f) metabolic activity of NIH-3T3 seeded on hydrogels after 1, 3, and 5 days of culture. Hydrogels were formed by using 2% MeHA and 10% ELP with 0 and 0.2 % (w/v) ZnO nanoparticles at 120 sec UV exposure time (\*  $p < 0.05$ , \*\*  $p < 0.01$ ).