



**Fig. S1.** **A** Protein concentration of DD. **B** DNA concentration of DD. **C** RNA concentration of DD. **D** Results of CCK8 at 24 hours of culture. **E** Statistics on the results of scratch experiments, **(F, G)** Immunofluorescence imaging of TNF- $\alpha$  and VEGF in bioprinted constructs after being cultured for 1 days in vitro (scale bar: 25 $\mu$ m). **(H, I)** Quantitative analysis of TNF- $\alpha$  and VEGF fluorescence. ns:  $P > 0.05$ , \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .