

Supporting Information

Chiral Hydrogels Facilitate Rapid Diabetic Wound Healing by Promoting Macrophage M2 Polarization and Cellular Proliferation.

Yi-ping Hu^{a,b}, Kui Xiao^b, Ma-chao Si^c, Cai-xia Wang^d, Yong Miao^{a,*}, Zhi-qi Hu^{a,*}

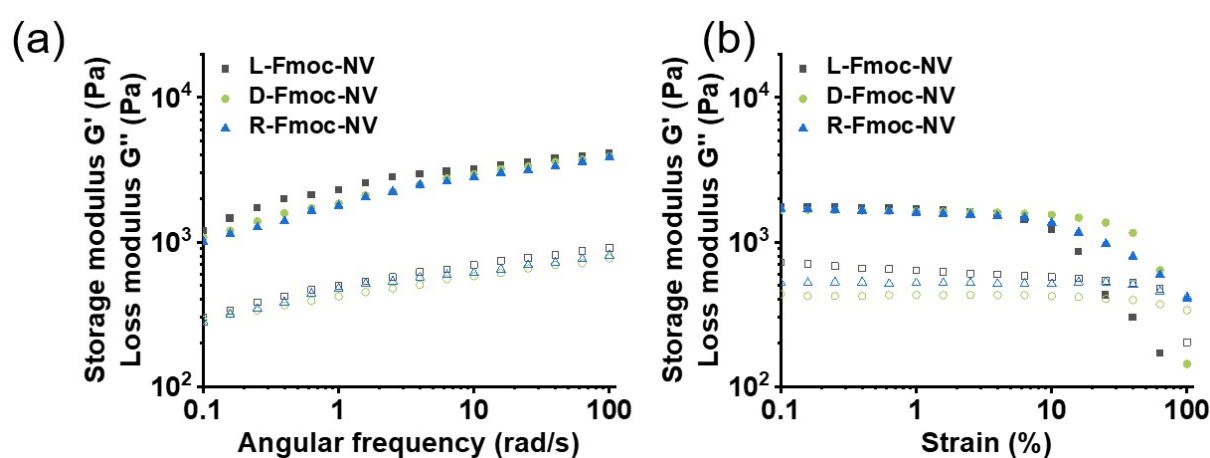


Fig. S1 (a) The frequency sweep of L-Fmoc-NV, D-Fmoc-NV and R-Fmoc-NV hydrogel. (b) The strain sweep of L-Fmoc-NV, D-Fmoc-NV and R-Fmoc-NV hydrogel.

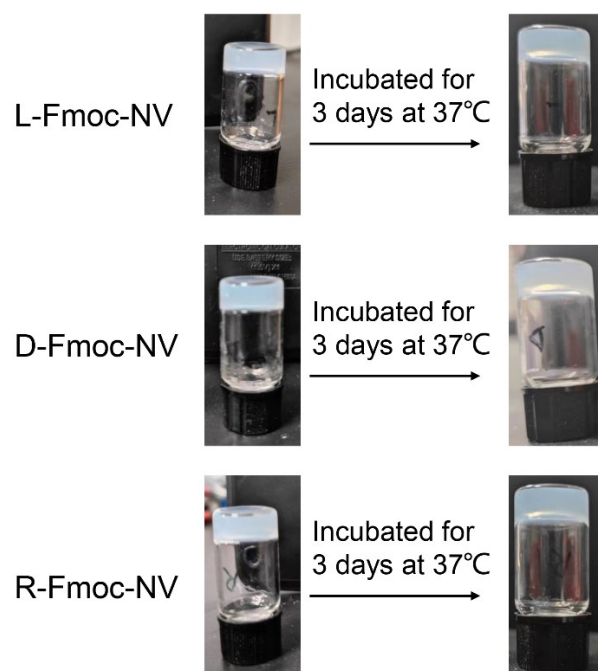


Fig. S2 The images of these three hydrogels before and after incubating 3 days at 37°C.

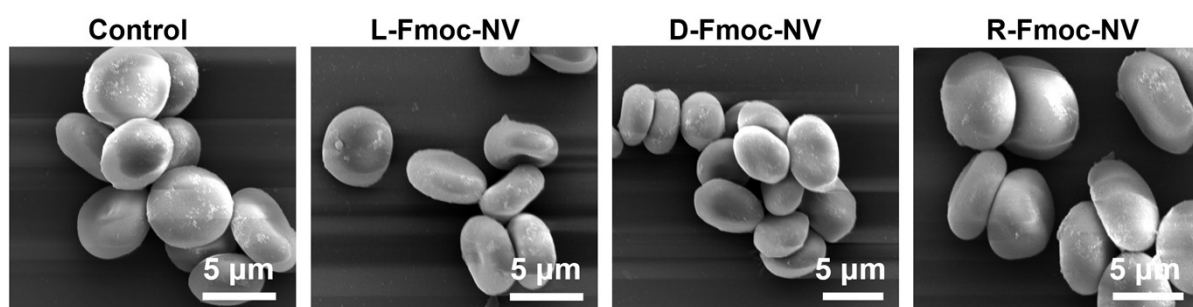


Fig. S3 The SEM images of red blood cells after treatment with different hydrogels.

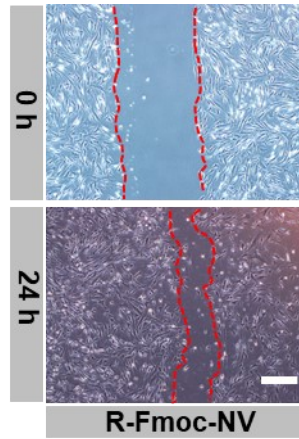


Fig. S4 The cell migration ratio of HUVECs after being treated with R-Fmoc-NV for 1 day. Scale bar: 0.2 mm.

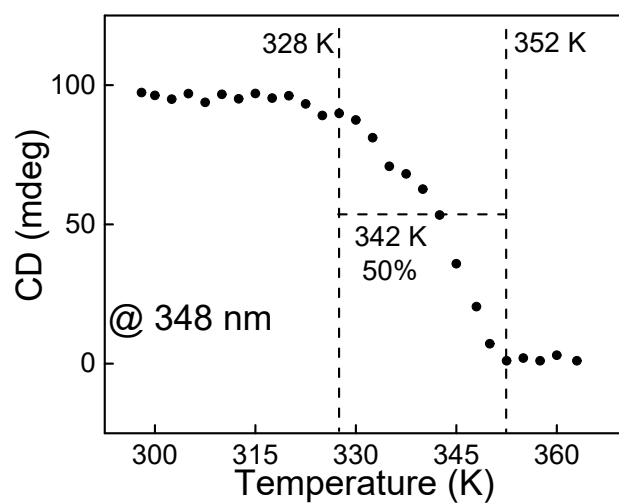


Fig. S5 Temperature dependent CD signal of L-Fmoc-NV at 348 nm.

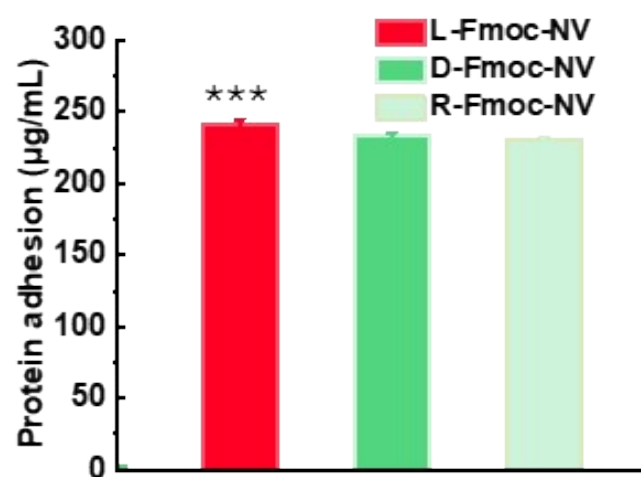


Fig. S6 The protein adhesion ability of all hydrogels.

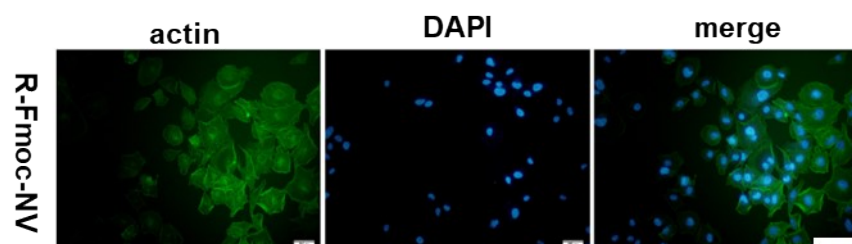


Fig. S7 The immunofluorescent staining of HUVECs after being treated with R-Fmoc-NV. Green: α -actin, blue: DAPI. Scale bar: 0.02 mm.

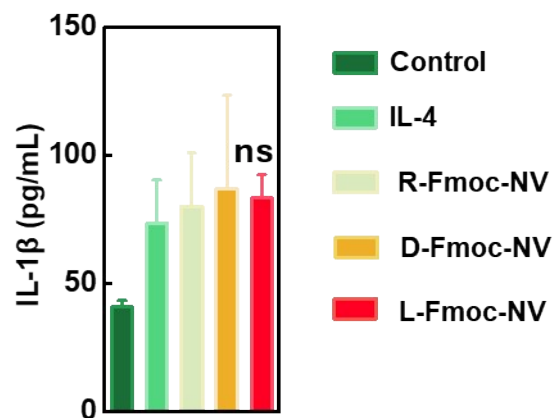


Fig. S8 The relative proteins of IL-1 β after being treated with different hydrogels. ns: no significant difference. * $p < 0.05$, ** $p < 0.01$, and *** $p < 0.001$.

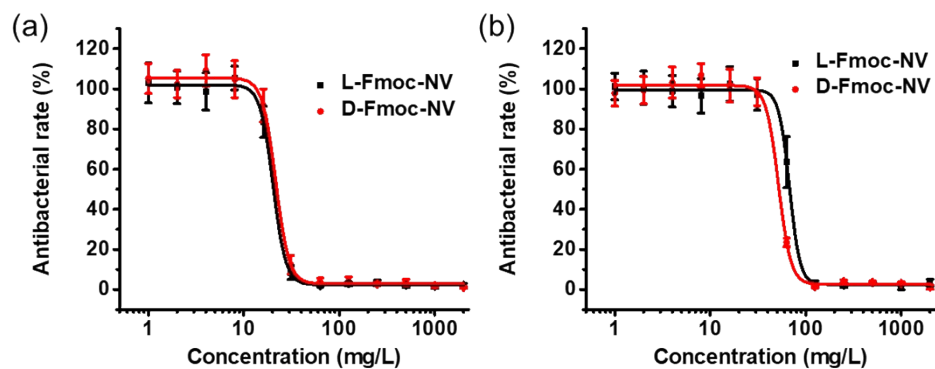


Fig. S9 (a) The antibacterial rate of L-Fmoc-NV and D-Fmoc-NV hydrogel against to *S. aureus* at different concentration. (b) The antibacterial rate of L-Fmoc-NV and D-Fmoc-NV hydrogel against *E. coli* at different concentrations.

Table S1. List of Abbreviations

AFM	Atomic Force Microscopy
CD	Circular dichroism
CCK-8	Cell Counting Kit-8
DMEM	Dulbecco's Modified Eagle Medium
D&I	Diabetic and infected
ECM	Extracellular matrix
ELISA	Enzyme-linked immunosorbent assay
FLIM	Fluorescence lifetime imaging microscopy
FTIR	Fourier transform infrared
H&E	Hematoxylin and Eosin
hRBCs	Human red blood cells
HUVECs	Human umbilical vein endothelial cells
OD	Optical density
PS	Polystyrene
SEM	Scanning electron microscope
TEM	Transmission electron microscope
TSB	Tryptic soy broth
XRD	X-Ray Diffraction