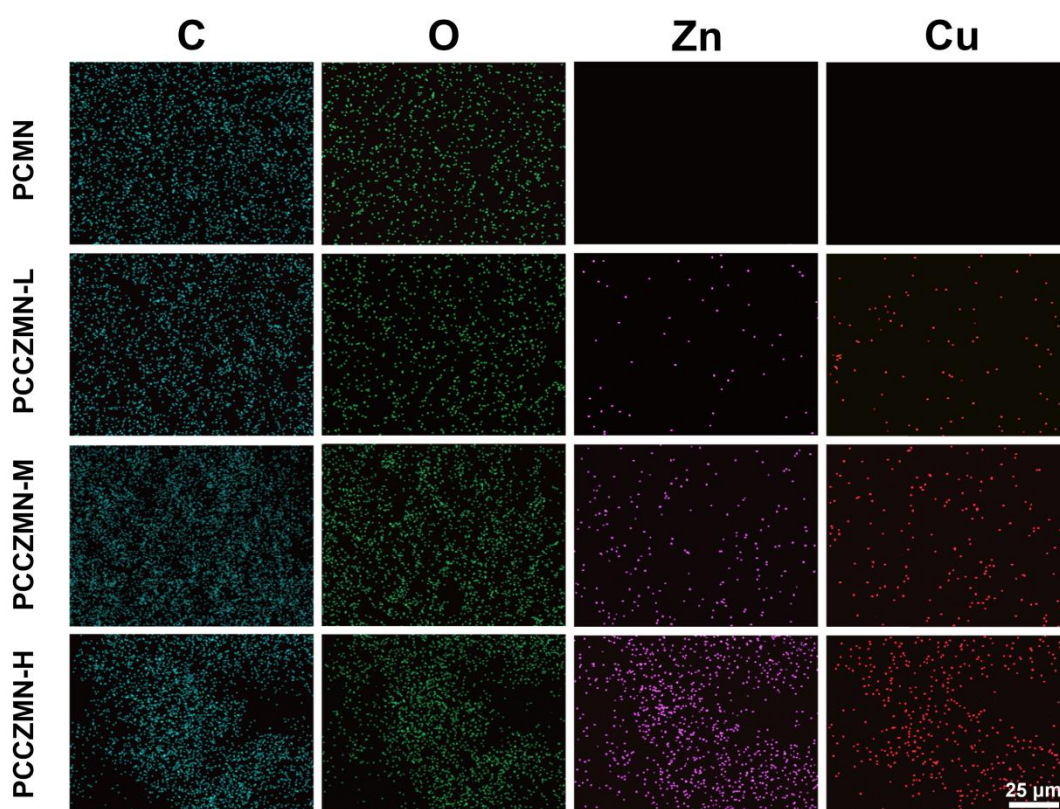


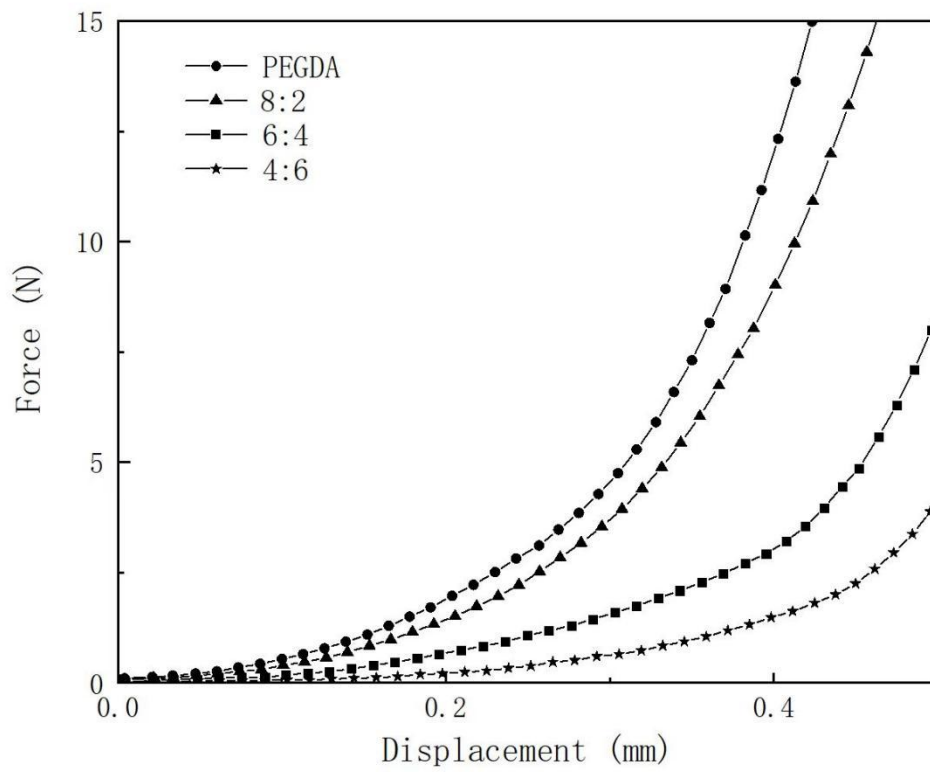
Supplementary material

Figure S1. The energy-dispersive X-ray spectroscopy (EDS) mapping of Cu@ZIF-8.



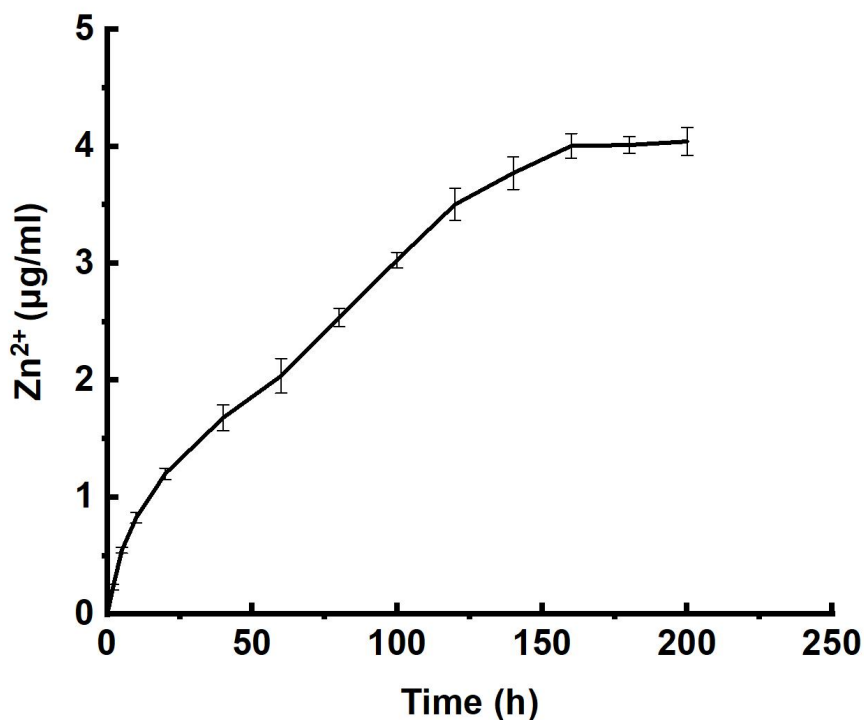
Supplementary material

Figure S2. The energy-dispersive X-ray spectroscopy (EDS) mapping of MNs with different concentration of Cu@ZIF-8.



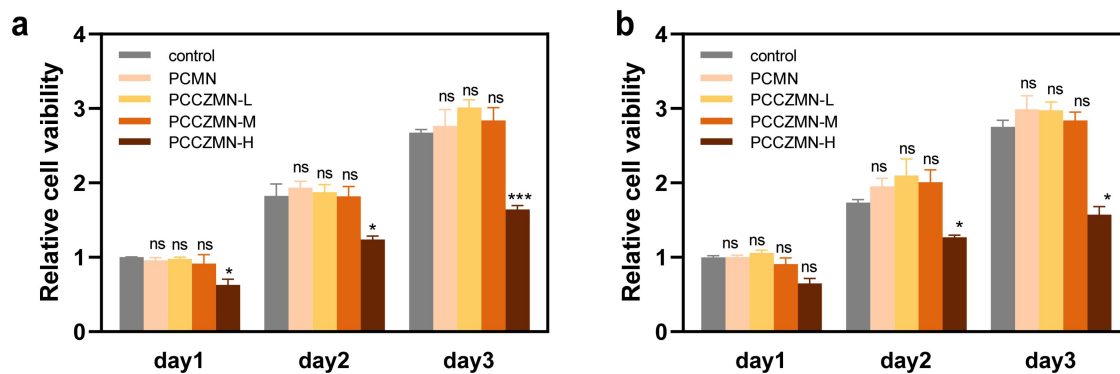
Supplementary material

Figure S3. The mechanical compression tests of MNs with different ratio of PEGDA and CMCS (Pure PEGDA, PEGDA/CMCS=8:2, 6:4, 4:6).



Supplementary material

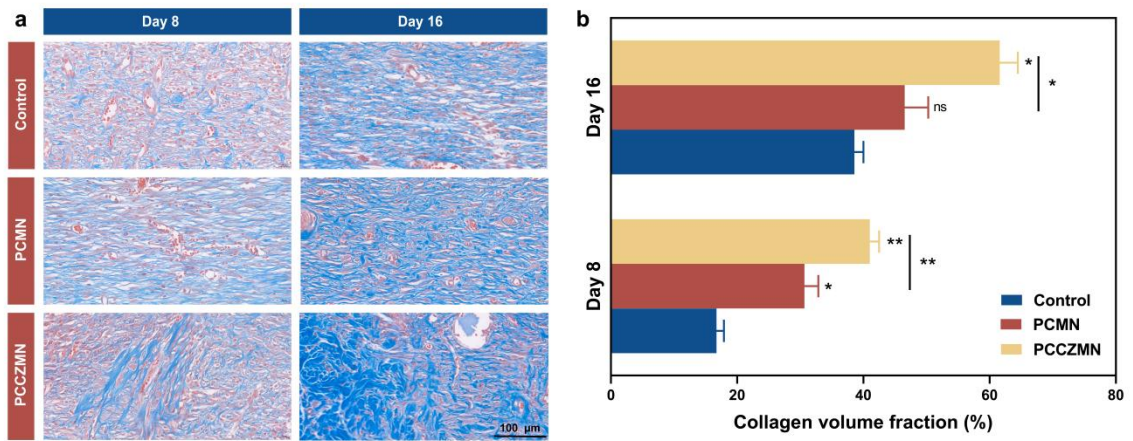
Figure S4. The release curve of Zn ions decomposed from MNs.



Supplementary material

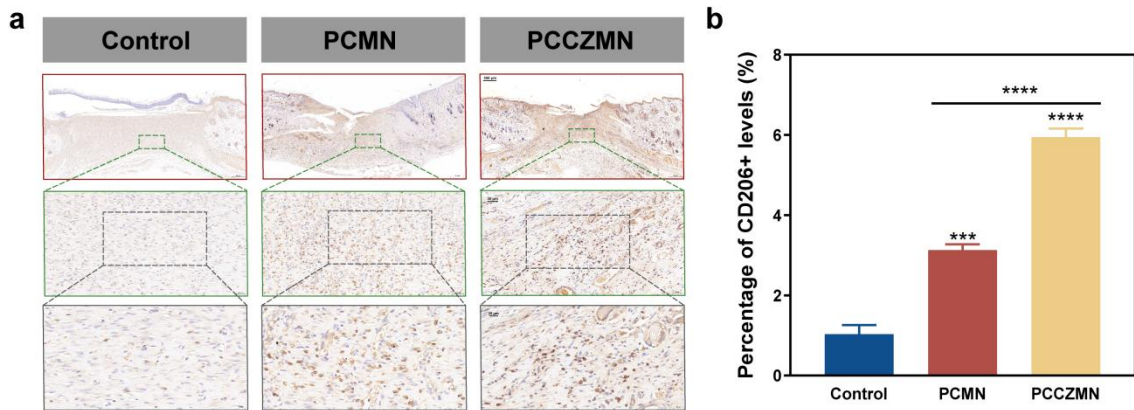
Figure S5. The biocompatibility tests of (a) L929 fibroblasts and (b) macrophages treated with different Cu@ZIF-8 concentrations of MNs evaluated by CCK-8 test.

Data are shown as mean \pm SD (n = 3) and analyzed using the one-way ANOVA test.



Supplementary material

Figure S6. (a) Masson's trichrome staining of the wounds in different treatment groups: control group, PCMN group and PCCZMN group on the 8th day and 16th day. (b) Corresponding quantitative analysis of collagen in different treatment groups.



Supplementary material

Figure S7. (a) Immunohistochemical staining of CD206 in different treatment groups: control group, PCMN group and PCCZMN group on the 8th day. (b) Corresponding quantitative analysis of CD206+ density in different treatment groups.