Supplementary Information (SI) for Journal of Materials Chemistry B. This journal is © The Royal Society of Chemistry 2025

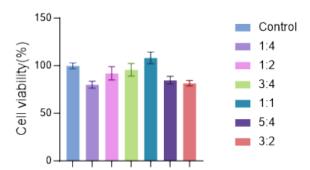


Figure S1.Effect of SC hydrogels with different mass ratios (Cu2+:SA) on L929 proliferation

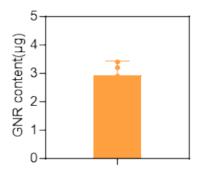


Figure S2. GNR content in FG MN

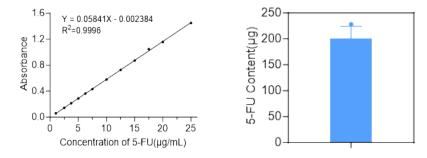


Figure S3. Standard curve of 5-FU and 5-FU content in FG MN

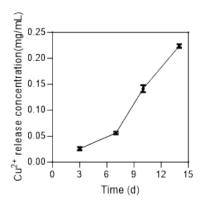


Figure S4. Release of  $Cu^{2+}$  in FG MN on days 3, 7,10 and 14.

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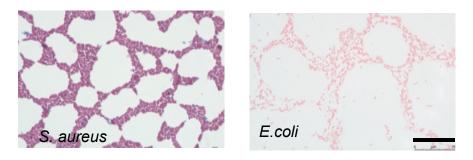


Figure S5. Gram stain of the Gram-positive bacterium S. aureus and the Gram-negative bacterium E. coli (scale bar =  $25\mu$ m)

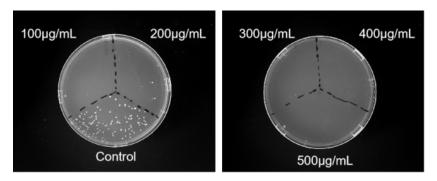


Figure S6. The killing effect of different concentrations of 5-FU on S. aureus