# Supplementary materials

# pH-responsive antibacterial metal-phenolic network coating on hernia mesh

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**Table S1 The surface elemental composition of all samples**

| Samples | Elements (atom %) | | |
|---|---|---|---|
| | C | O | Cu |
| PP | 99.70±1.61 | 0.30±2.40 | / |
| PP-CT(1) | 89.18±1.56 | 10.54±1.64 | 0.28±0.56 |
| PP-CT(5) | 87.91±1.61 | 9.89±1.71 | 2.20±0.58 |
| PP-CT(10) | 78.68±1.34 | 18.83±2.27 | 2.49±0.50 |

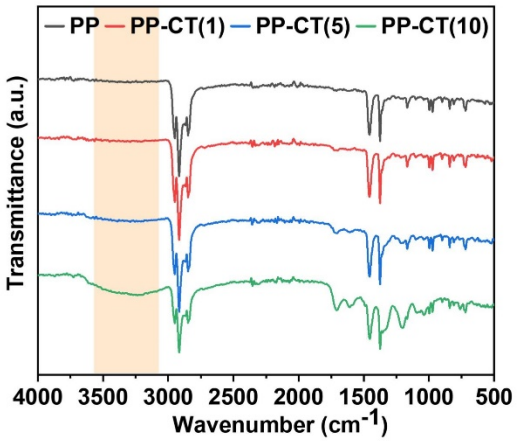


**Figure S1.** FTIR spectra of PP, PP-CT(1), PP-CT(5) and PP-CT(10).

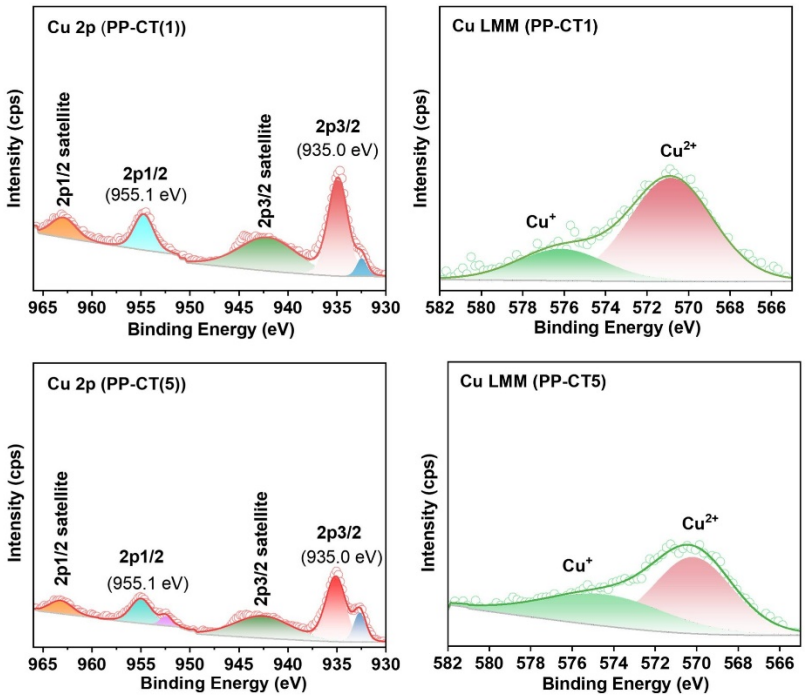


**Figure S2.** XPS high-resolution spectra of Cu 2p and Cu LMM of PP-CT(1) and PP-CT(5).

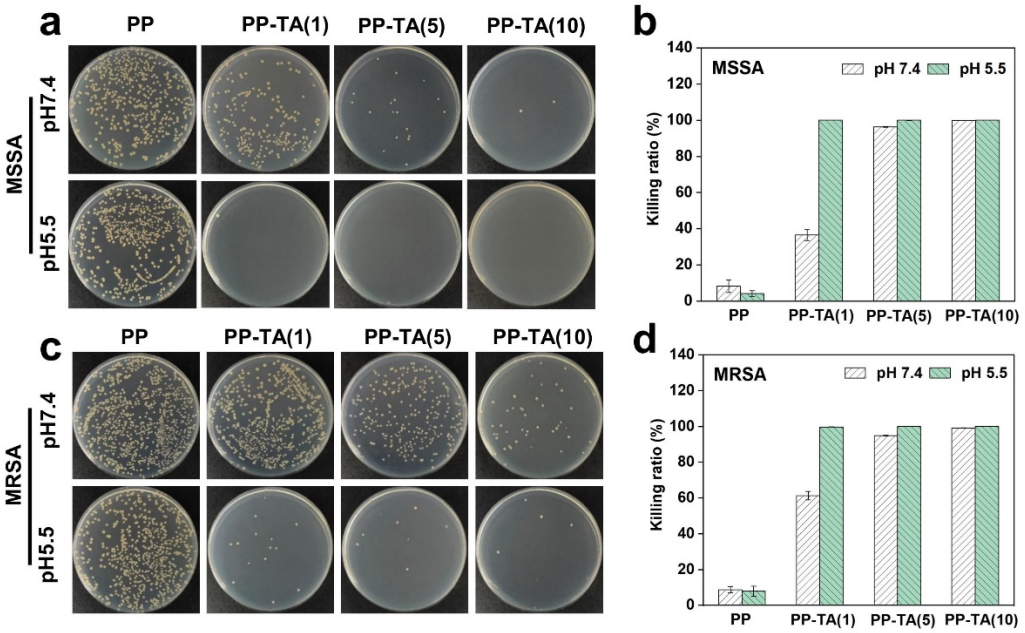


**Figure S3.** Colony formation of (a) MSSA and (c) MRSA, and the killing ratios against (b) MSSA and (d) MRSA after incubation 4 hours on the surfaces of pristine and TA coated PP meshes.

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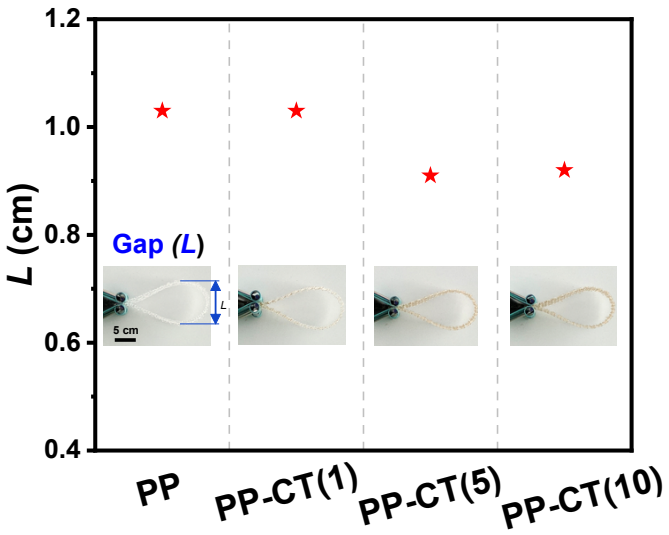


**Figure S4.** The gap length of folded pristine PP and CT coated PP meshes.

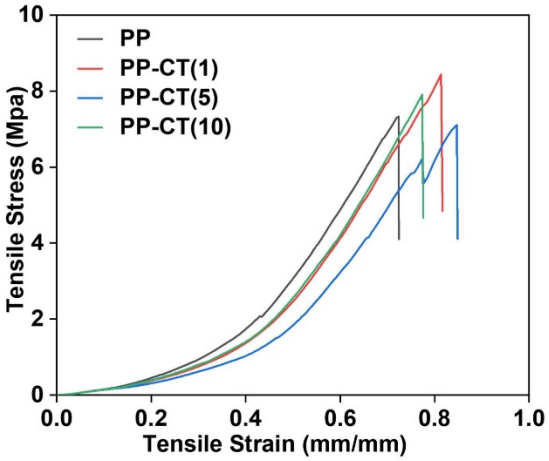


**Figure S5.** Tensile stress–strain curves of pristine and CT coated PP meshes