

## Supporting Information

### Dual Antibacterial Behaviors of Curcumin-Upconversion Photodynamic Nanosystem for Efficient Eradicating Drug-Resistant Bacteria in Deep Joint Infection

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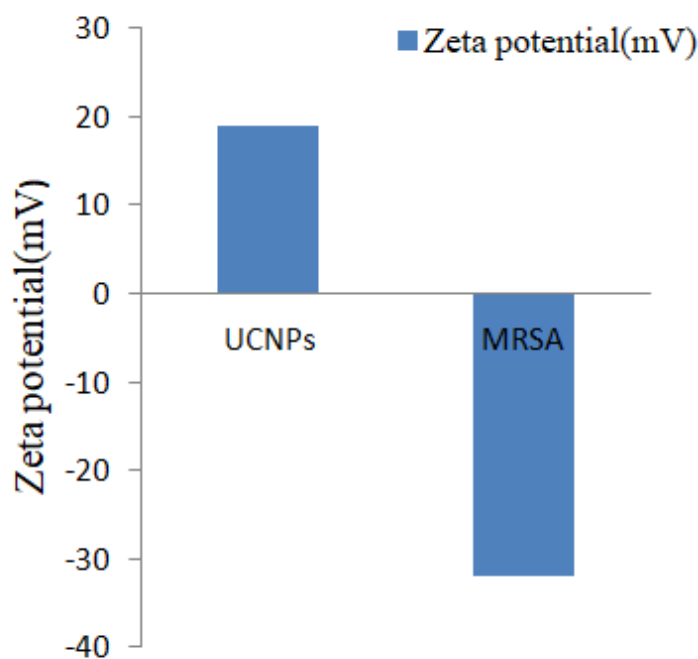
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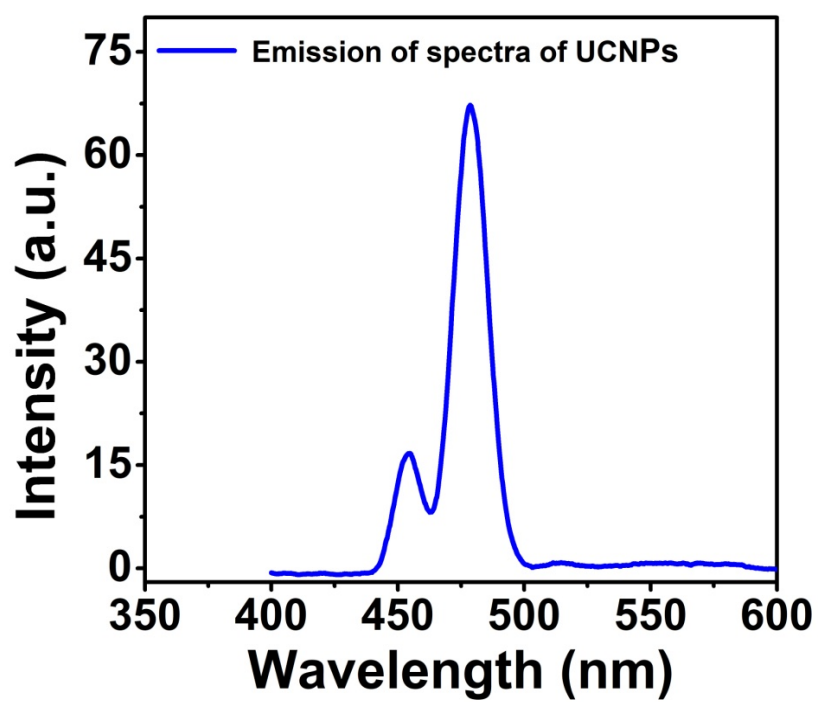
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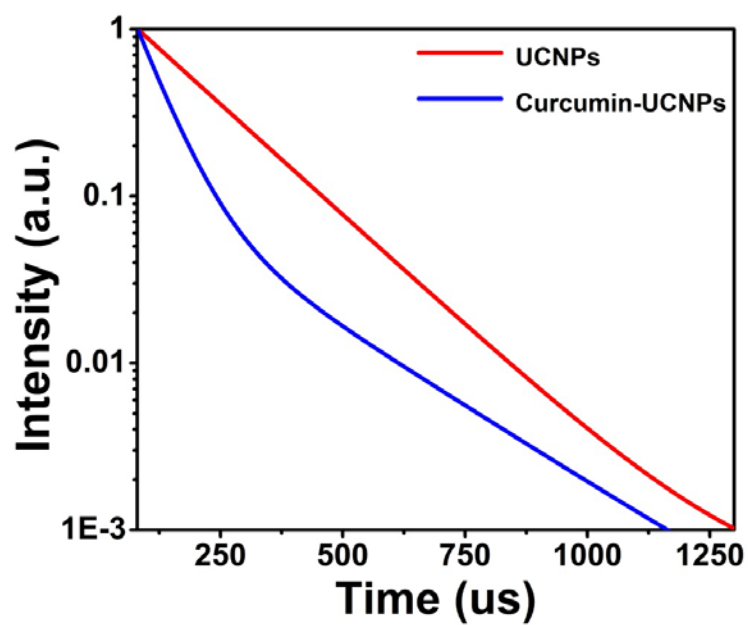
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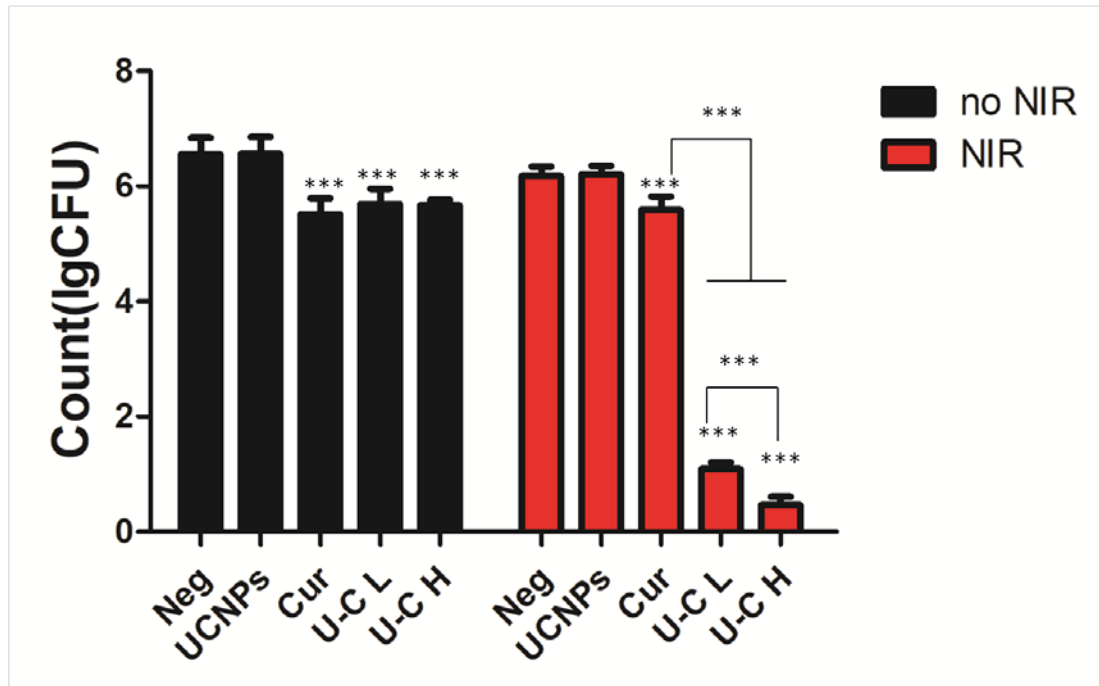
**Fig. S1.** Zeta potential of the Curcumin-UCNP nanocomposites and MRSA.



**Fig. S2.** PL spectrum of UCNPs.



**Fig. S3.** Fluorescence decay curve of UCNPs and Curcumin-UCNPs.



**Fig. S4.** The number of colonies on the agar plates measured by the colony counter. (“Neg” for negative groups, UCNPs for UCNPs groups, “Cur” for curcumin groups “U-C L” for curcumin- UCNPs of low concentration groups, and “U-C H” for curcumin-UCNPs of high concentration groups)

Notes: \*\*\*  $P < 0.01$  compared with the negative group, \*\*\*  $P < 0.01$  compared between the two groups with the marking lines