



Supplementary Materials: Antimicrobial Biophotonic Treatment of Ampicillin-Resistant *Pseudomonas* aeruginosa with Hypericin and Ampicillin Cotreatment Followed by Orange Light

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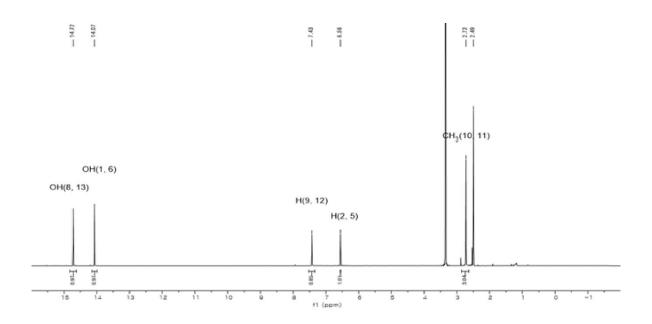


Figure S1. 1 H-NMR spectrum of hypericin used in this study (in DMSO- d_{e}).

¹H NMR (500 MHz, DMSO- d_6) δ 14.72 (s, 1H), 14.07 (s, 1H), 7.43 (s, 1H), 6.56 (d, J = 1.0 Hz, 1H), 2.72 (s, 3H).

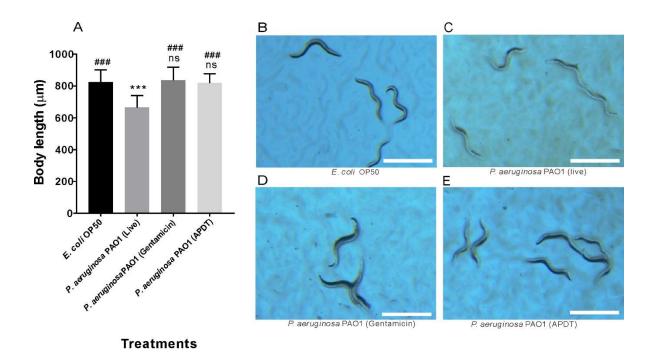


Figure S2. Pathogenesis assessment for *P. aeruginosa* PAO1 in *C. elegans* by measurement of worm growth at 64 h. Body length measurement graph (A). Age-synchronized *C. elegans* eggs were treated with the control, *E. coli* OP50 (B), live *P. aeruginosa* PAO1 (C), gentamicin (100 μ g/mL)-treated *P. aeruginosa* (D), or APDT-treated *P. aeruginosa* (E) for 64 h. Scale bar = 1 mm. Each value corresponds to the mean \pm standard deviation (n = 30).

^{***} p < 0.001, difference from the vehicle control.

^{*****} p < 0.001, difference from the live *P. aeruginosa* treatment group.

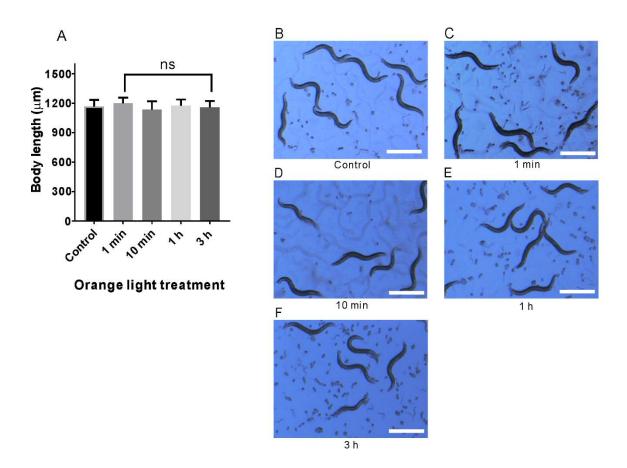


Figure S3. Toxicity test of orange light exposure in *C. elegans* fed *E. coli* OP50. Age-synchronized L1-stage worms were treated with orange light $(150 \pm 20 \text{ W/m}^2)$ for 1 min, 10 min, 1 h, and 3 h. Then, the body length of worms was measured at 96 h after the egg preparation. The graph is representative of two independent experiments. Scale bar = 1 mm. No significant difference (ns) observed compared with the vehicle control (n = 50).