Electronic Supplementary Material (ESI) for New Journal of Chemistry.

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## **Supplementary Information**

## Polymyxin B-functionalized phthalocyanine for chemophotodynamic antibacterial therapy in enhanced wound healing

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## S1 Animal safety evaluation

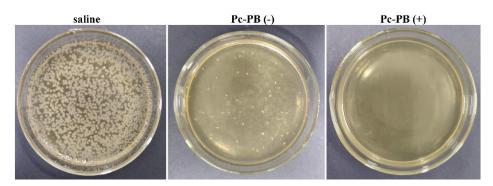
The mice were anesthetized by intraperitoneal injection of 10% chloral hydrate and then shaved the hair on the left side of backs. A round full-thickness dermal wound with a diameter of 1.0 cm was created at the left side of each rat vertebra. A round gauze cloth close to the size of the wound was covered on the wound surface. Then 100  $\mu$ L of 1.0 mg/mL Pc-PB was smeared on the gauze with 680 nm light irradiation for 5 min. After administration of three days, blood was collected for routine blood test and clinical biochemical test.

Tab. S1 Effect of 1.0 mg/mL Pc-PB on blood cells of mice

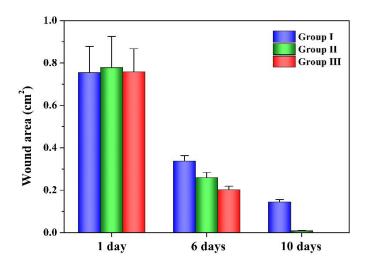
| Group  | WBC (10 <sup>12</sup> /L) | RBC (10 <sup>12</sup> /L) | PLT (10 <sup>12</sup> /L) |
|--------|---------------------------|---------------------------|---------------------------|
| saline | $3.23 \pm 1.13$           | $9.49 \pm 0.70$           | $365.67 \pm 1.49$         |
| Pc-PB  | $2.69 \pm 0.36$           | $9.66 \pm 0.70$           | $390.67 \pm 1.40$         |

Tab. S2 Effect of 1.0 mg/mL Pc-PB on blood biochemical indexes in mice

| Group  | Urea                     | Grea                            | AST                             | AST1                            |
|--------|--------------------------|---------------------------------|---------------------------------|---------------------------------|
|        | $(\mu mol \cdot L^{-1})$ | $(\mu mol \cdot L^{\text{-}1})$ | $(\mu mol \cdot L^{\text{-}1})$ | $(\mu mol \cdot L^{\text{-}1})$ |
| saline | $8.94 \pm 1.79$          | $13.57 \pm 2.50$                | $146.29 \pm 3.27$               | 58.71 ± 5.20                    |
| Pc-PB  | $9.11 \pm 2.00$          | $11.50 \pm 2.75$                | $156.33 \pm 2.14$               | $70.17 \pm 9.23$                |



**Fig. S1.** Photographs of spread LB agar plate samples of bacteria from the wounds of different groups at the 2nd day after administration.



**Fig. S2.** Wound areas of different groups at 1 day, 6 days and 10 days after administration, respectively.