

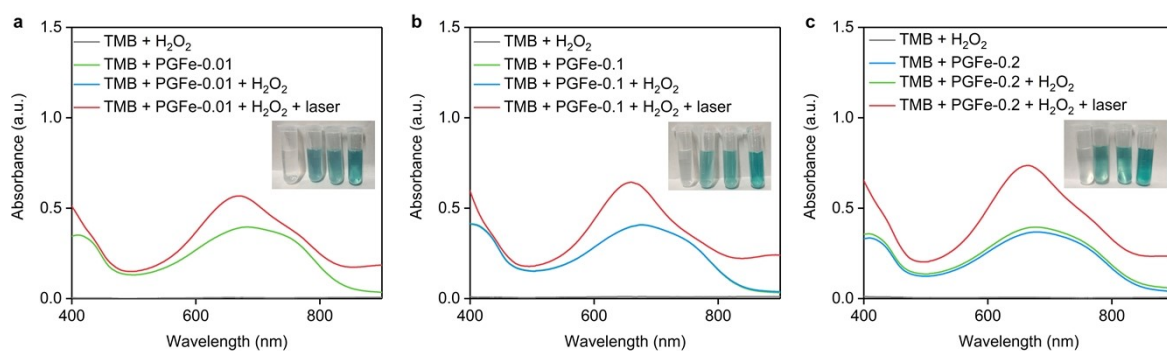
## **Supplementary information**

### **Near-infrared light-activated ROS generation using semiconducting polymer nanocatalysts for photodynamic-chemodynamic therapy**

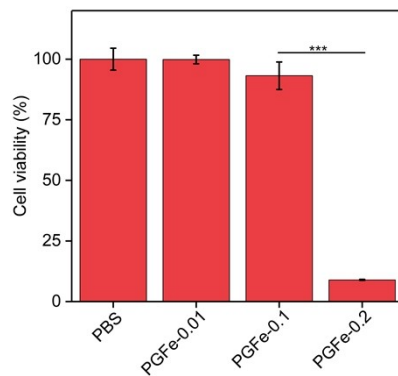
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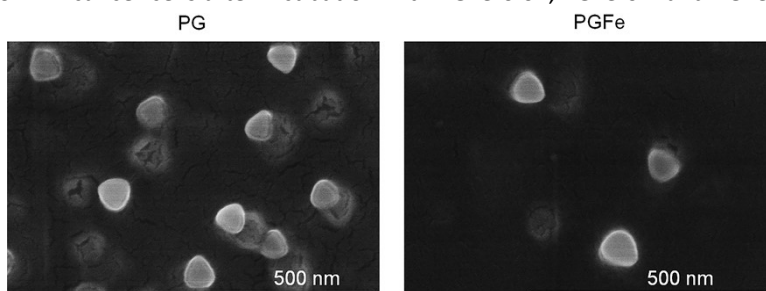
<sup>b</sup> Department of Nuclear Medicine, Shanghai General Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200080, China. Email: zlz-330@163.com.



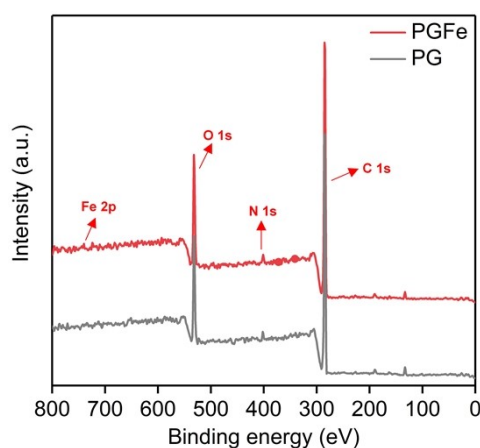
**Figure S1.** The  $\cdot\text{OH}$  generation evaluation for PGFe-0.01, PGFe-0.1 and PGFe-0.2 at different conditions using TMB as the indicator.



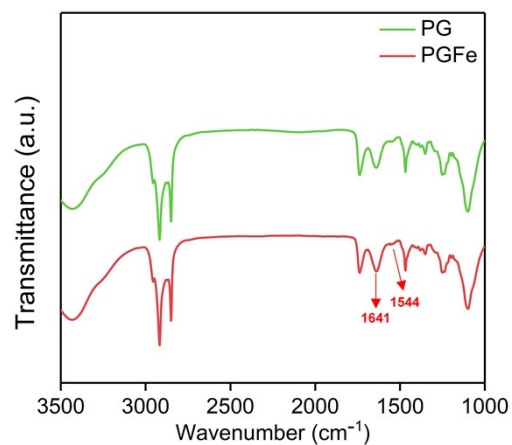
**Figure S2.** Cell viability of 4T1 cancer cells after incubation with PGFe-0.01, PGFe-0.1 and PGFe-0.2.



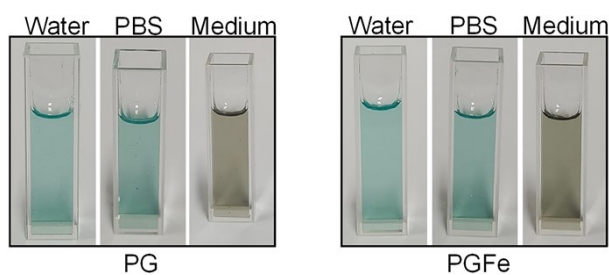
**Figure S3.** SEM iamges of PG and PGFe.



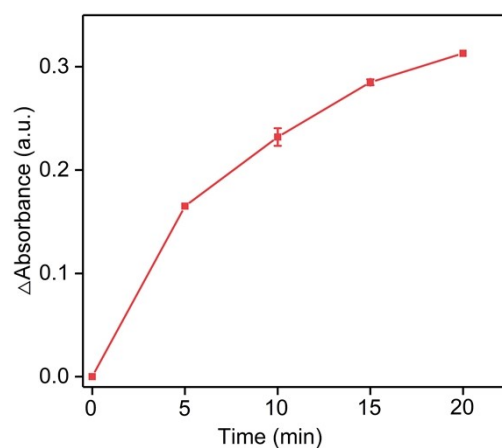
**Figure S4.** XPS spectra of PG and PGFe.



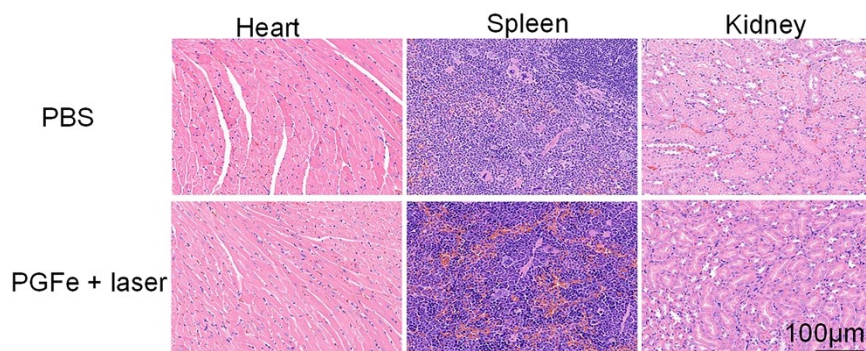
**Figure S5.** FTIR spectra of PG and PGFe.



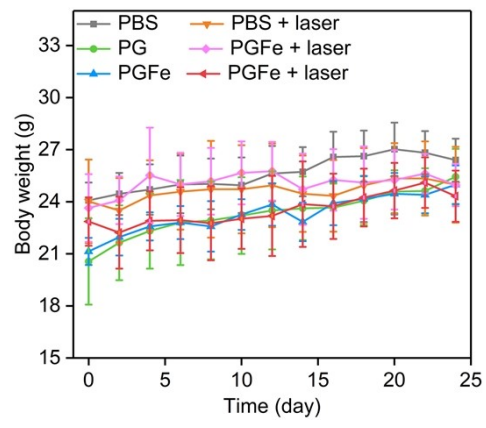
**Figure S6.** Photographs of PG and PGFe after storage in water, PBS and cell culture medium for two weeks.



**Figure S7.** Absorbance changes for TMB solution containing PGFe and H<sub>2</sub>O<sub>2</sub> for different time.



**Figure S8.** Histological H&E staining images of heart, kidney and spleen in PBS and PGFe + laser groups after treatments for 24 days.



**Figure S9.** Body weights of 4T1 tumor-bearing mice after different treatments for 24 days.