

## Supplementary Information

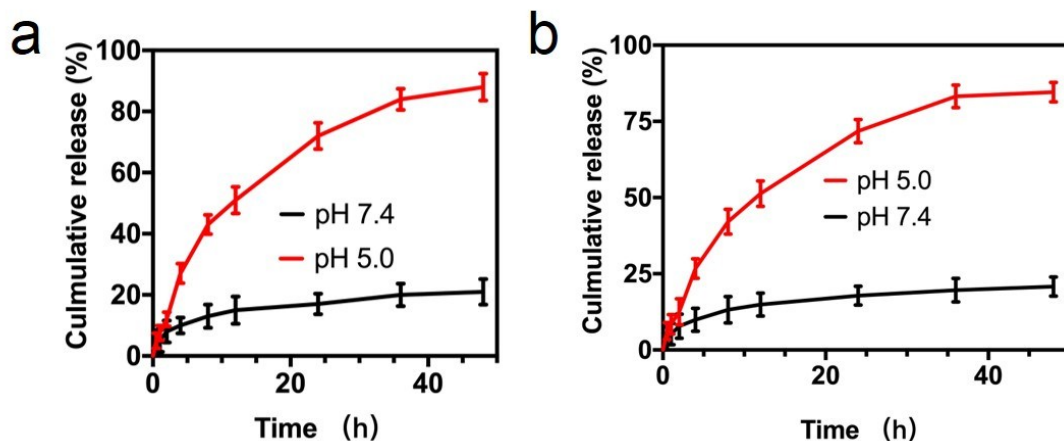
### Sequential therapy for pancreatic cancer by losartan- and gemcitabine-loaded magnetic mesoporous spheres

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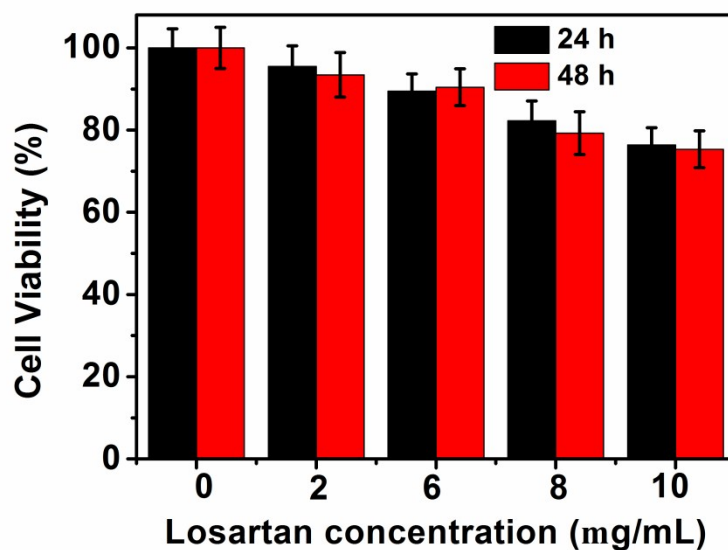
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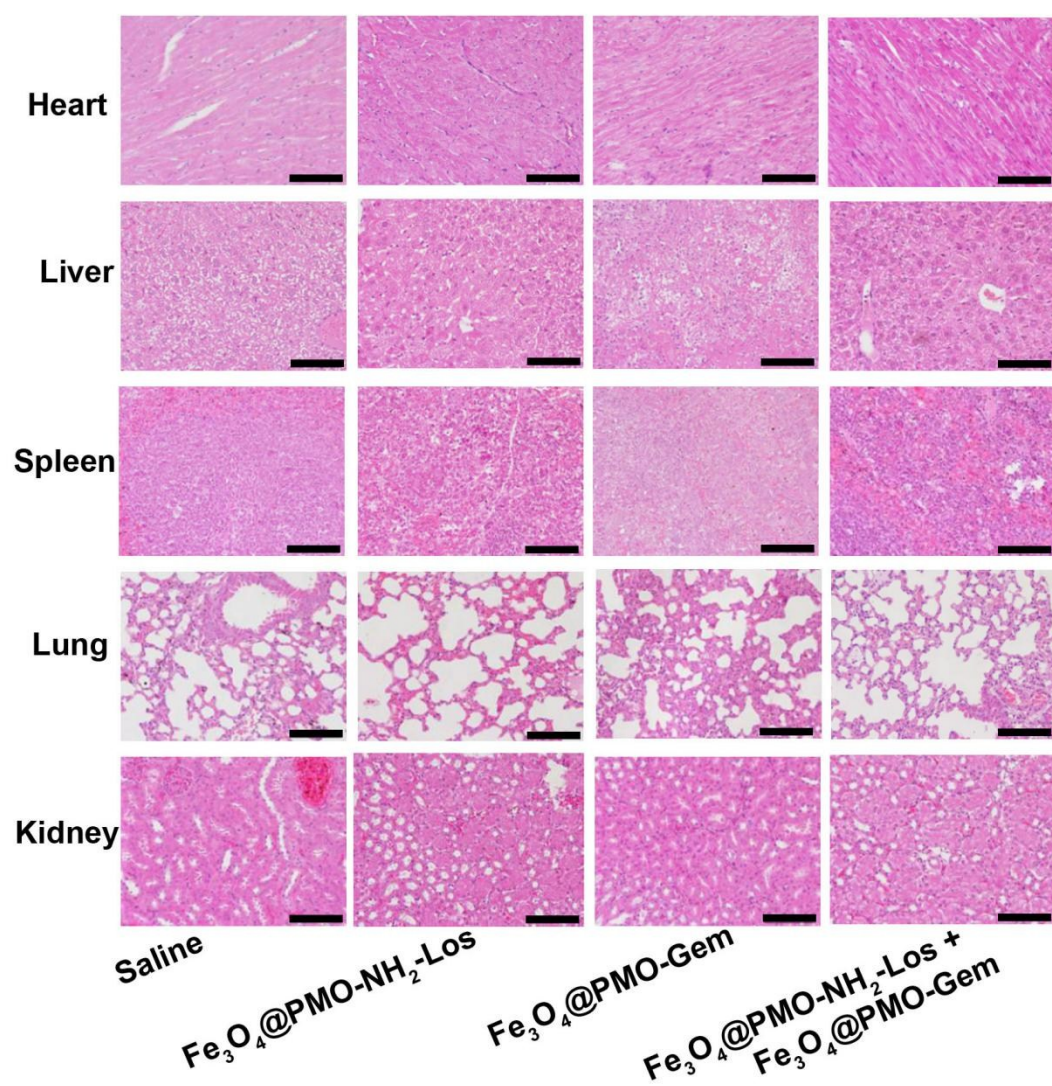
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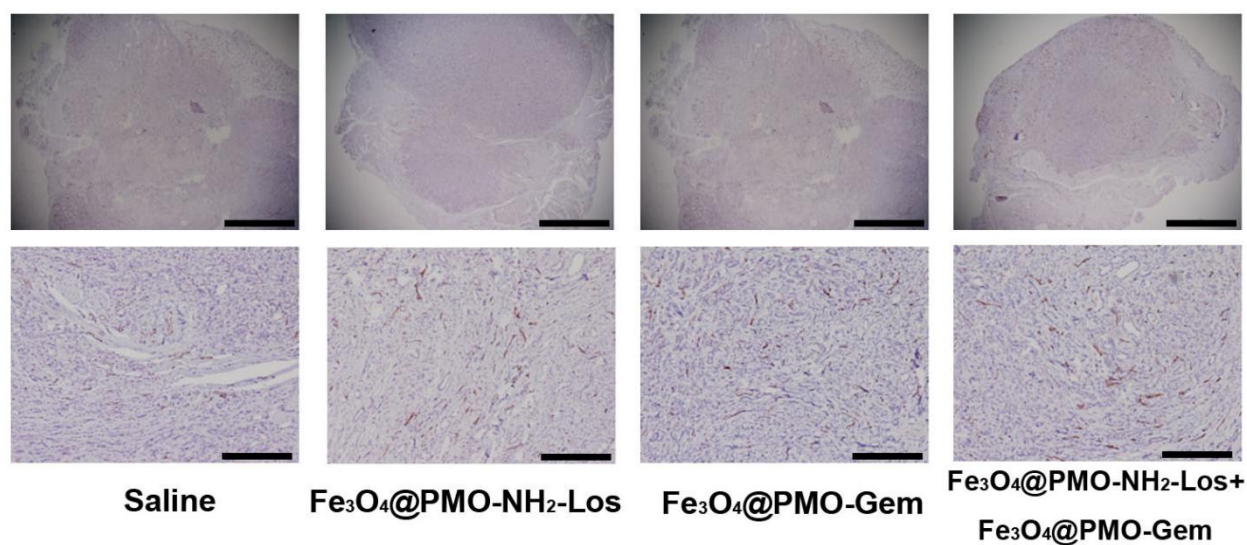
**Figure S1.** In vitro release profiles of (a) losartan from  $\text{Fe}_3\text{O}_4@\text{PMO-NH}_2\text{-Los}$  and (b) gemcitabine from  $\text{Fe}_3\text{O}_4@\text{PMO-Gem}$  at pH 7.4 and 5.0. Each experiment repeated three times.



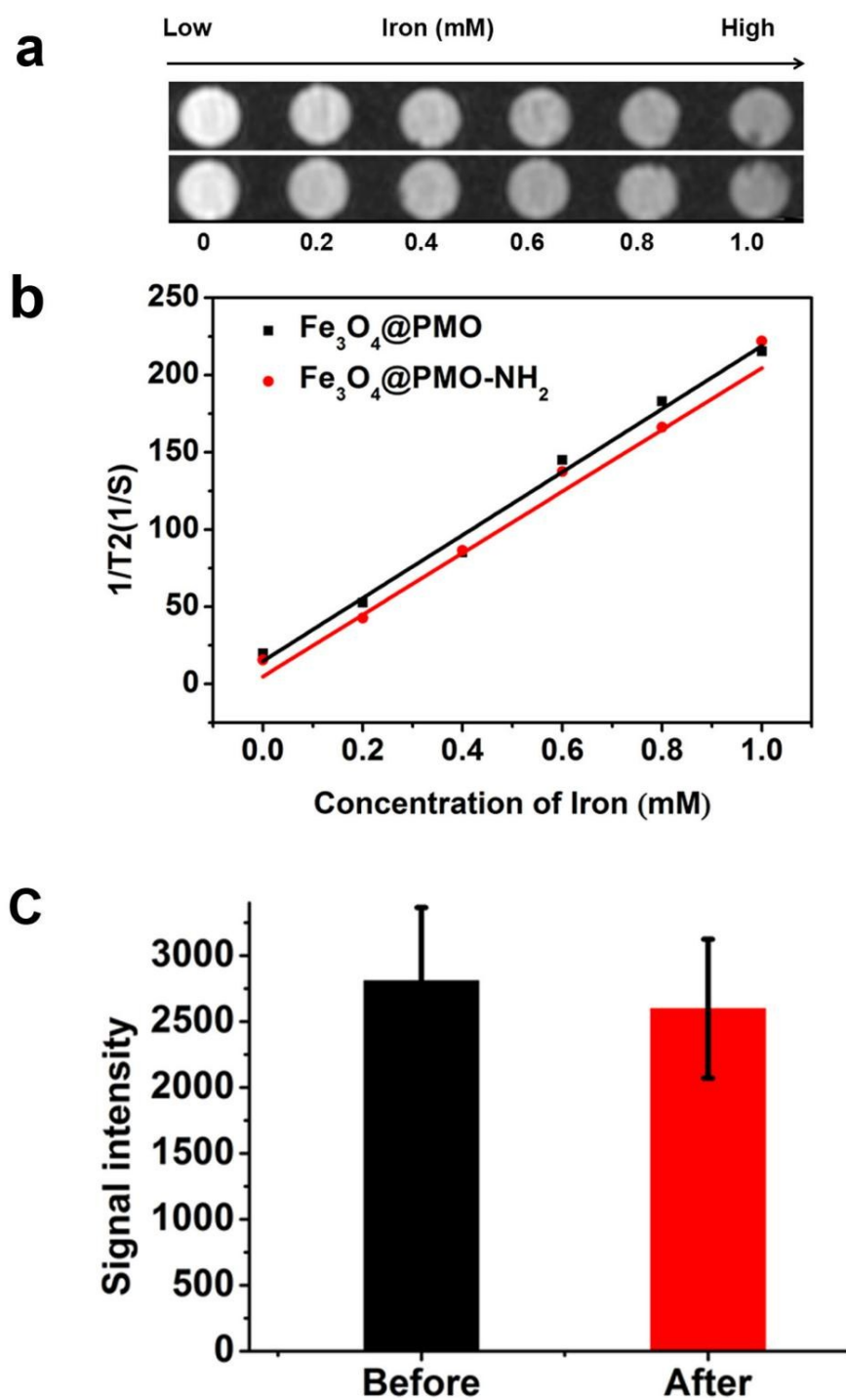
**Figure S2.** In vitro viability of pancreatic cancer DSL/6A cells incubated with  $\text{Fe}_3\text{O}_4@\text{PMO-NH}_2\text{-Los}$  for 24 h and 48 h. Each group has 5 repeat wells.



**Figure S3.** H&E staining assay of heart, liver, spleen, lung and kidney tissues after the treatment. Bar represents 20  $\mu\text{m}$ .



**Figure S4.** Representative images of immunohistochemistry staining of CD31 of DSL/6A tumor from different groups after the treatment at different magnifications. The upper row is magnified  $\times 20$  with scale bar 1000  $\mu\text{m}$  and the lower row is magnified  $\times 100$  with scale bar 20  $\mu\text{m}$ .



**Figure S5.** (a) T<sub>2</sub>-weighted MR images of the composite spheres of different Fe concentrations in the agarose gel. (b) Relaxation rate R<sub>2</sub> (1/T<sub>2</sub>) of Fe<sub>3</sub>O<sub>4</sub>@PMO and Fe<sub>3</sub>O<sub>4</sub>@PMO-NH<sub>2</sub> as a function of Fe concentration. (c) The signal intensity of MRI before and after the intravenously injection of Fe<sub>3</sub>O<sub>4</sub>@PMO-NH<sub>2</sub>-Los.