Supporting Information

Persistent Luminescent Metal-Organic Framework Nanocomposite Enables

Autofluorescence-Free Dual Modal Imaging Guided Drug Delivery

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Figures and figure captions



Fig. S1. Luminescence decay curves of PLNPs prepared at different pH 6.0, 7.0, 7.5 and 8.0 (a) and at different calcination temperature of 750 °C, 800 °C, 850 °C and 900 °C (b).



Fig. S2. XRD patterns of as-prepared PLNPs (ZGGO:Cr,Eu).



Fig. S3. (a) TEM images of as-prepared PLNPs. (b) Hydrodynamic size of as-prepared PLNPs.



Fig. S4. Luminescence and MRI properties of assembled PLNPs@MIL-100(Fe). (a) Emission spectra of different assembled layers. (b) Luminescence decay curves of PLNPs and PLNPs@MIL-100(Fe). (c) *In vitro* MR imaging of PLNPs, PLNPs@MIL-100(Fe)-2 and

PLNPs@MIL-100(Fe)-4. (d) Images of the PLNPs@MIL-100(Fe) dispersion solution of different layers assembled.



Fig. S5. Zeta potential of PLNPs, PLNPs-OH and PLNPs@MIL-100(Fe) at pH 8.0.



Fig. S6. Photos of PLNPs@MIL-100(Fe) in various solutions (1 mg mL⁻¹): DMEM culture medium; FBS (fetal bovine serum); PBS buffer solution; purified water.



Fig. S7. Near-infrared persistent luminescence properties of PLNPs@MIL-100(Fe) dispersion solution (1 mg mL⁻¹). (a) Excitation and emission spectra. (b) Luminescence decay curve after excitation by 254 nm UV lamp. (c) Luminescence decay curve recorded by CCD camera after excitation by 254 nm UV lamp.



Fig. S8. Total fluorescence counts change curves in injection sites.



Fig. S9. Cell viability of HUVEC.



Fig. S10. Body weights change of PLNPs@MIL-100(Fe) experimental group with PBS treated mice as a control group.



Fig. S11. N₂ adsorption-desorption isotherms of PLNPs@MIL-100(Fe).



Fig. S12. Zeta potential of PLNPs@MIL-100(Fe)-DOX at different pH (4.0, 5.0, 6.0 and 7.4).



Fig. S13. Cell viability of 4T1 cells.



Fig. S14. (a) MR imaging of tumor-bearing mice injected intravenously with PLNPs@MIL-100(Fe) (0.2 mL, 15 mg mL-1). (b) T2 MR signal change of liver tissue.