## **Supporting Information**

## Au/Mn nanodots platform for in vivo CT/MRI/FI multimodal bio-imaging and photothermal therapy against tongue cancer

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Figure S1. The corresponding diameter distribution of Au NDs and Au/Mn NDs with different molar ration of Au and Mn

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Figure S7. CT intensities quantitative analysis via time.

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Figure S9. Serum biochemical parameters for Cardiac, liver and renal function.



**Figure. S1**. The corresponding diameter distribution of (a) Au NDs (1.9 nm) and different molar ration of Au and Mn (b) 9:1 (2.1 nm), (iii) 6:4 (3.2 nm), (iv) 4:6 (3.5 nm).



Figure. S2. Zeta potential of Au/Mn NDs showing positive charges on surface.



Figure. S3. Hydrated radius distribution.



Figure S4. UV-vis-NIR absorbance of Au/Mn NDs.



**Figure. S5**. a) and b) were CT and MRI ( $T_1$  and  $T_2$ ) images of Au/Mn NDs with gradient percent of doping Mn. c) UV-vis spectra of Au/Mn NDs aqueous solution. d) corresponding Abs intensity of Au/Mn NDs with gradient percent of doping Mn.



Figure. S6. MRI intensites  $(T_1, a \text{ and } T_2, b)$  of Au/Mn NDs.



Figure. S7. CT intensities quantitative analysis via time.



Figure. S8. Thermo-graphic photographs of tumor-bearing mice exposed to 1064 nm laser for

different time (0, 1, 2, 3, 4, 5 min) using 0.5, 1, 1.5 W/cm<sup>2</sup> power after injection with PBS and Au/Mn NDs a) PBS + 1 W/cm<sup>2</sup>, temperature increased to 38.3 °C after 5 min irradiation; b) NDs + 0.5 W/cm<sup>2</sup>, temperature increased to 39.6 °C after 5 min irradiation; c) NDs + 1 W/cm<sup>2</sup>, temperature increased to 58.1 °C after 5 min irradiation; d) NDs + 1.5 W/cm<sup>2</sup>, temperature increased to 63.3 °C after only 1.5 min irradiation.



Figure S9. Serum biochemical parameters for Cardiac, liver and renal function in control and

Au/Mn NDs group.