Supporting Information

Stepwise growth of gold coated cancer targeting carbon nanotubes for the precise delivery of doxorubicin combined with photothermal therapy

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**Fig S1.** The size distribution of (a) Au NPs before adsorbed and (b) after grown.
( obtained from 100 Au NPs, respectively).

**Fig S2.** IR spectra of cut MWNTs (black) and the MWNT@PPy material (red).
Fig S3. (a) UV-vis spectra of A: cut and oxidized MWNTs; B: MWNT@PPy; C: MWNT@PPy@Au; D: MWNT@PPy@Au-S-PEG-FA@DOX; E: DOX and D: FA-PEG-SH.

Fig S4. Raman Shift of (A) cut and oxidized MWNTs, (B) MWNT@PPy, (C) MWNT@PPy@Au, (D) MWNT@PPy@Au-S-PEG-FA.
**Fig S5.** Combination chemotherapy and photothermal therapy on H9C2 and HeLa cells after incubating with A: MWNT@PPy@Au-S-PEG@DOX and B: MWNT@PPy@Au-S-PEG (the functionalized mPEG-SH without FA was used instead of FA-PEG-SH) at 50 μg·mL⁻¹ for 24 h and then irradiated using an 808 nm laser at 1.5W·cm⁻² for 8 min.