

CuS-¹³¹I-PEG nanotheranostics-induced “multiple mild-hyperthermia” strategy to overcome radio-resistance in lung cancer brachytherapy

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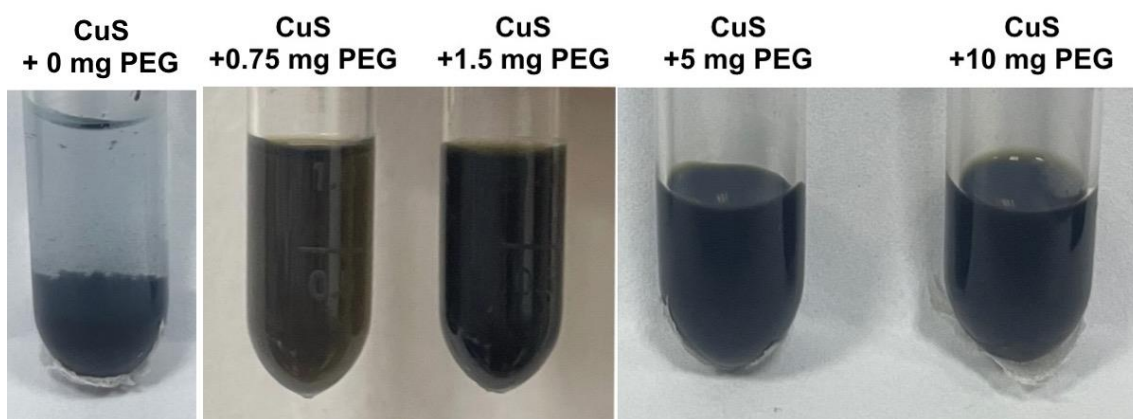


Figure S1. Images of CuS NPs without and with PEG modification.

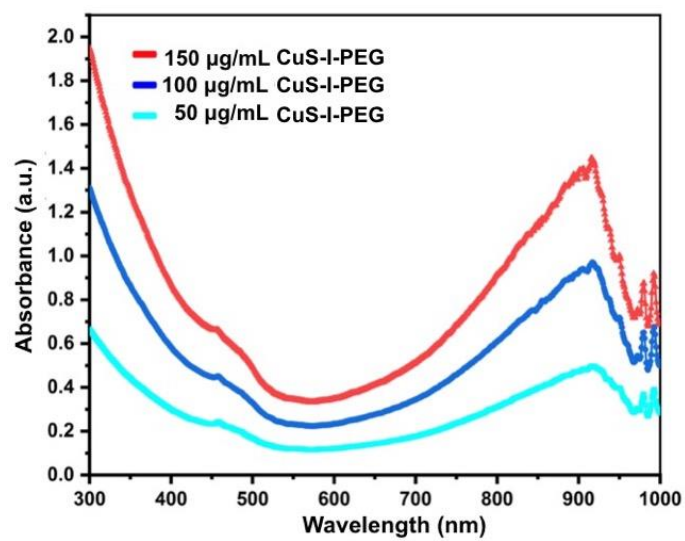


Figure S2. UV-Vis-NIR absorption spectra of CuS-I-PEG nanotheranostics with different concentration of CuS, i. e. 150 µg/mL, 100 µg/mL and 50 µg/mL, respectively.

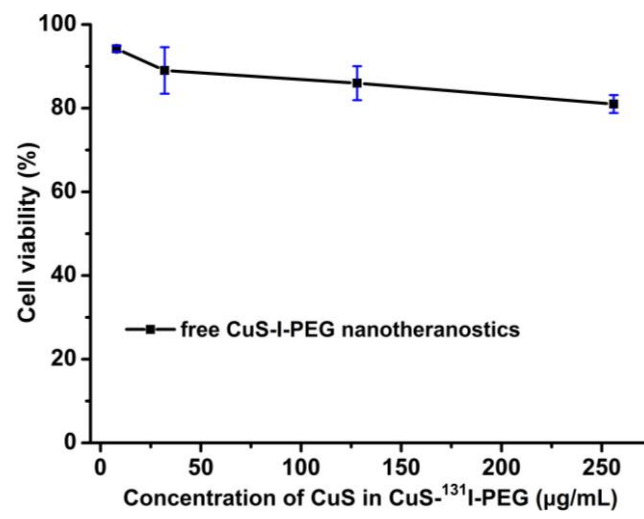


Figure S3. Cytotoxicity of free CuS-I-PEG nanotheranostics after incubation with A549 cells for 24 h.

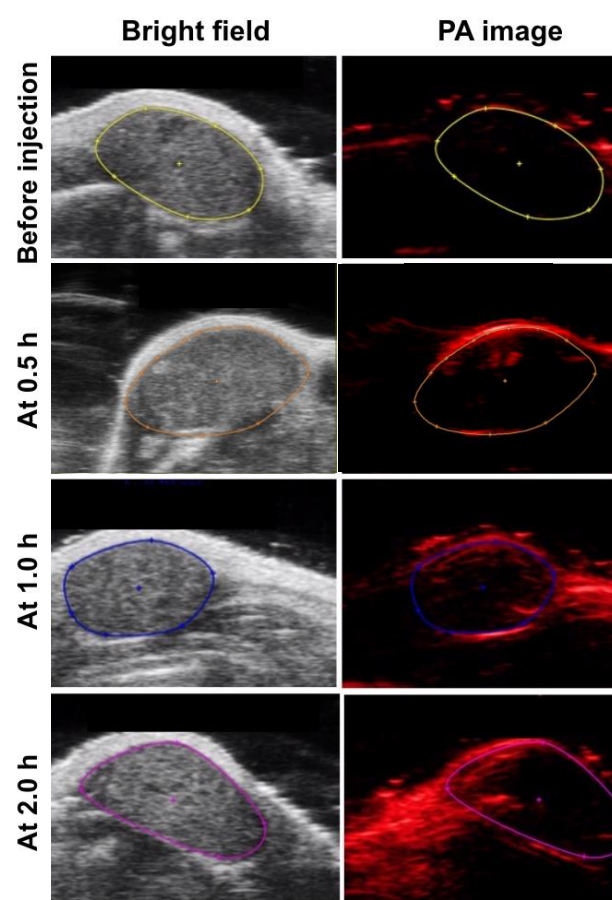


Figure S4. Photoacoustic images of CuS-¹³¹I-PEG nanotheranostics at tumors without 808 nm NIR laser irradiation.

Table S1. Formulations with different amount of CuS, iodine and PEG, and their size and zeta potential results.

Formulations	CuS(mg)	NaI(mg)	CuS:NaI(mol ratio)	SH- PEG _{5K} (mg)	Size(Number mean d.nm)	Zeta potential
1	3.3625	/	/	0	10	-13
2	3.3625	/	/	0.5	10	-20
3	3.3625	/	/	0.75	15	-20
4	3.3625	/	/	1.5	17	-21
5	3.3625	/	/	2.5	18	-21
6	3.3625	/	/	5	16	-37
7	3.3625	/	/	10	20	-32
8	3.3625	0	0	1.5	15	-14
9	3.3625	0.1875	20:1	1.5	18	-20
10	3.3625	0.25	15:1	1.5	19	-14
11	3.3625	0.375	10:1	1.5	18	-14
12	3.3625	0.75	5:1	1.5	15	-13
13	3.3625	0.375	10:1	0.5	16	-15
14	3.3625	0.375	10:1	0.75	22	-20
15	3.3625	0.375	10:1	1.5	19	-16
16	3.3625	0.375	10:1	2.5	20	-19