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Figure S1. AFM topography image of GO-Au seeds.



Height Sensor

380.0 nm



Size (nm)

Figure S2. The statistical diameter distribution of (A) GO, (B) Au seeds and (C) Austar.

Figure S3. The DLS size distribution of (A) GO-Au seeds and (B) GO-Austar@rHSA-FA.



Figure S4. Full elements X-ray photoelectron spectroscopies of GO (A) and GO-Austar (B).



Figure S5. IR780 stander curve.



Figure S6. Representative heating profile of different formulations in PBS buffer with 808 nm laser irradiation. IR780: 20 µg/mL, GO-Austar@rHSA-FA: 40 µg/mL



	Without laser				Irradiation			
	PBS	GO-Au star @rHSA-FA	IR780	GO-Au star@ rHSA-FA@IR780	PBS	GO-Au star @rHSA-FA	IR780	GO-Au star@ rHSA-FA@IR780
0 day			- Alles	No.	-	R		200
3 day	1000	1000		Lee	St.	-	1000	Ser a
6 day		to.	A A A	the second	-	parta.		200
9 day	-	500	- RE		-	and the	X	
12 day		200		-	2	1000	- Co	-
15 day		See	and the	1 de	man.	122°	the main and	

Figure S7. In vivo photothermal therapy of all the formulations with/without irradiation.