

*Supplementary Materials*

# Hyaluronidase-Responsive Mesoporous Silica Nanoparticles with Dual-Imaging and Dual-Target Function

**Table S1.** Hydrodynamic size and zeta potential for MSN-EuGd and functionalized MSN-EuGd.

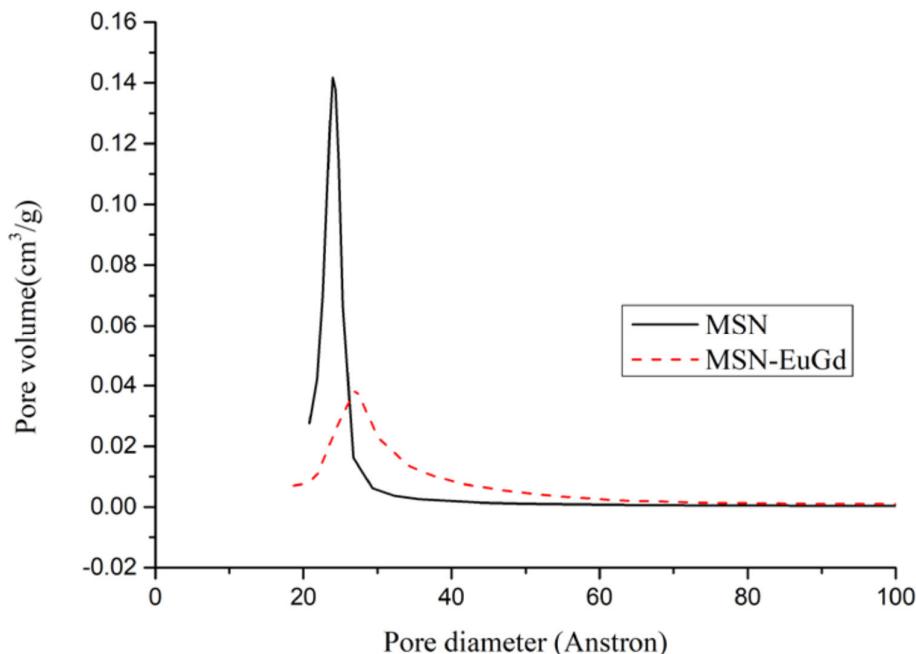
	MSN-EuGd	MSN-EuGd-NH	MSN-EuGd-TAT	MSN-EuGd-TAT-HA
Zetapotential (mV)	-14.5	-10.5	4.08	-17.3
Particle size (nm)	271.2	279.9	381.1	457.5

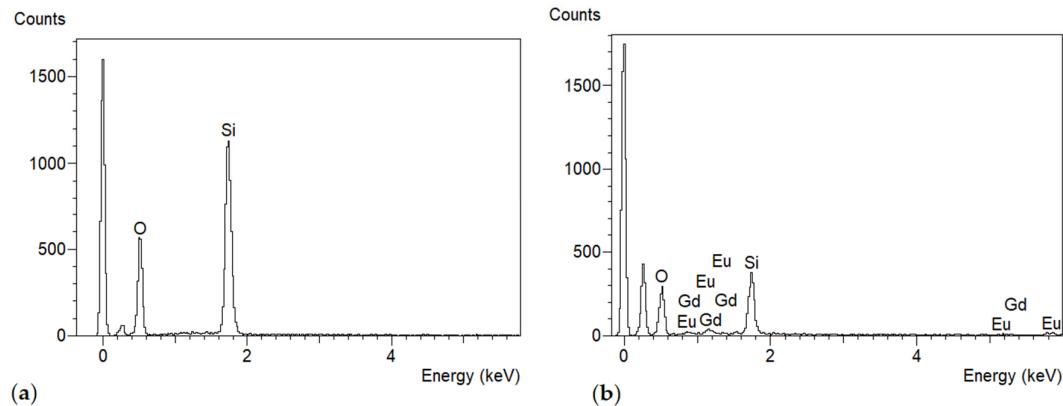
**Table S2.** ICP-MS analyze of MSN and MSN-EuGd.

Sample	Eu	Gd
MSN	0%	0%
MSN-EuGd	1.06%	1.02%

**Table S3.** TGA for the MSN-EuGd@CPT-TAT-PEG-FA.

MSN-EuGd	-NH <sub>2</sub>	-TAT	@CPT	-HA
Weight (%)	11.44	2.56	1.5	6.15
mg/g	129.17	26.27	15.22	65.53

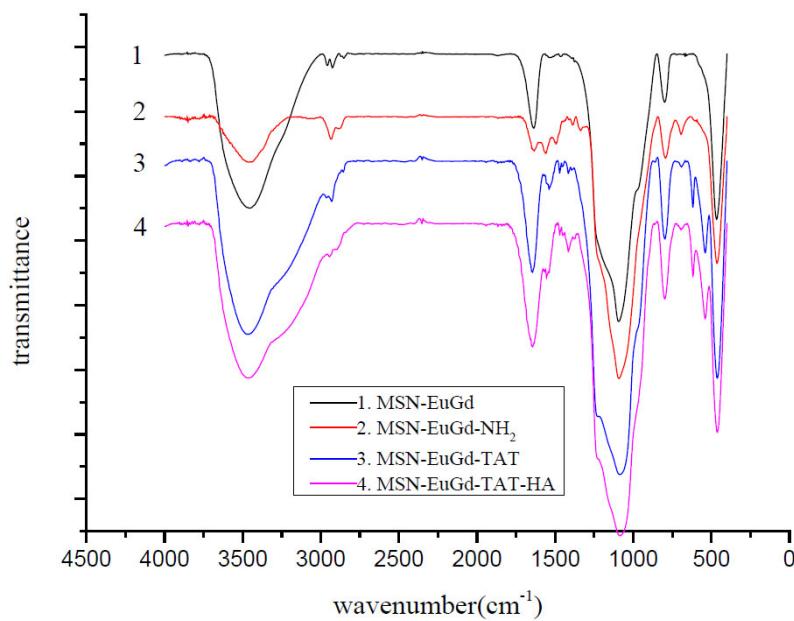
**Figure S1.** BJH pore size distribution of MSN and MSN-EuGd.



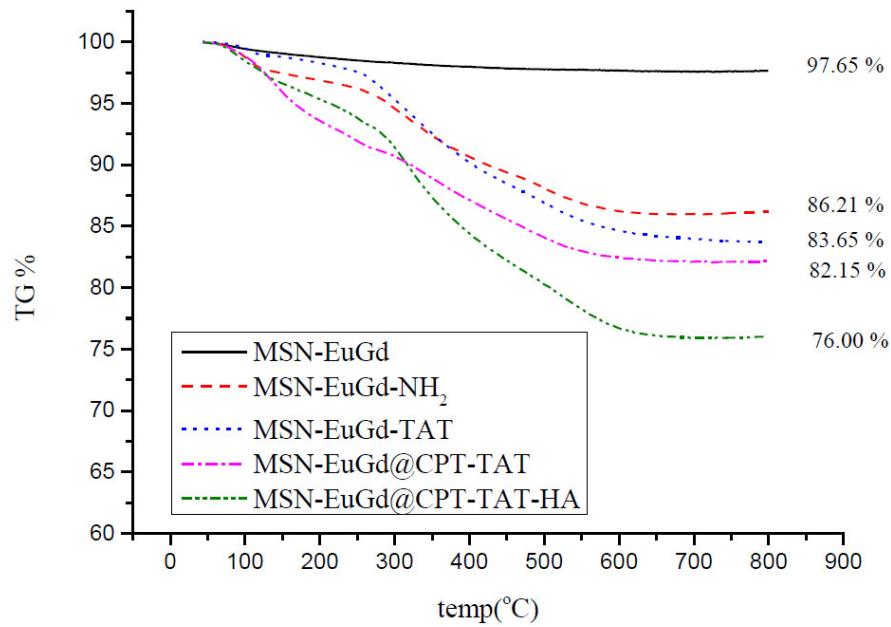
**Figure S2.** EDX spectral analyses of the (a) MSN and (b) MSN-EuGd.



**Figure S3.** MSN and MSN-EuGd powder taken under illumination by a 254 nm UV lamp.



**Figure S4.** FTIR spectrum of MSN-EuGd and functionized MSN-EuGd.



**Figure S5.** TGA patterns for the MSN-EuGd and functionized MSN-EuGd.