

Electronic Supplementary Information (ESI) for:
**Peptide-Functionalized NaGdF₄ Nanoparticles for Tumor-
Targeted Magnetic Resonance Imaging and Effective Therapy**

Yixin Chen^a, Yu Fu^a, Xiaodong Li^a, Hongda Chen^{*b}, Zhenxin Wang,^b Huimao Zhang^{*a}

^aDepartment of Radiology, the First Hospital of Jilin University, Changchun 130021, P. R. China. E-mail: huimaozhanglinda@163.com (HZ); Fax: (+86) 431-88783300.

^bState Key Laboratory of Electroanalytical Chemistry, Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, 130022, P. R. China. E-mail: chenhongda@ciac.ac.cn (HC); Fax: (+86) 431-85262756.

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1. Additional Figures

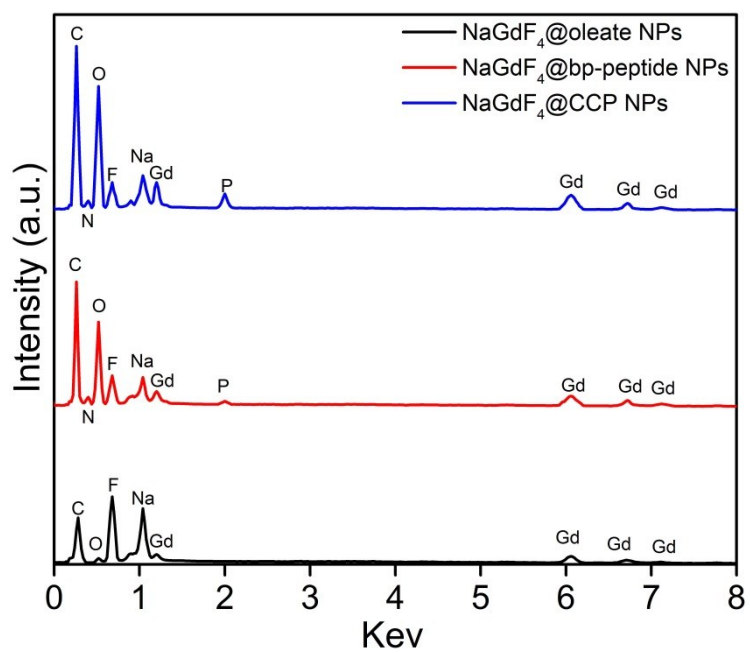


Fig. S1 EDS spectra of as-prepared nanoparticles.

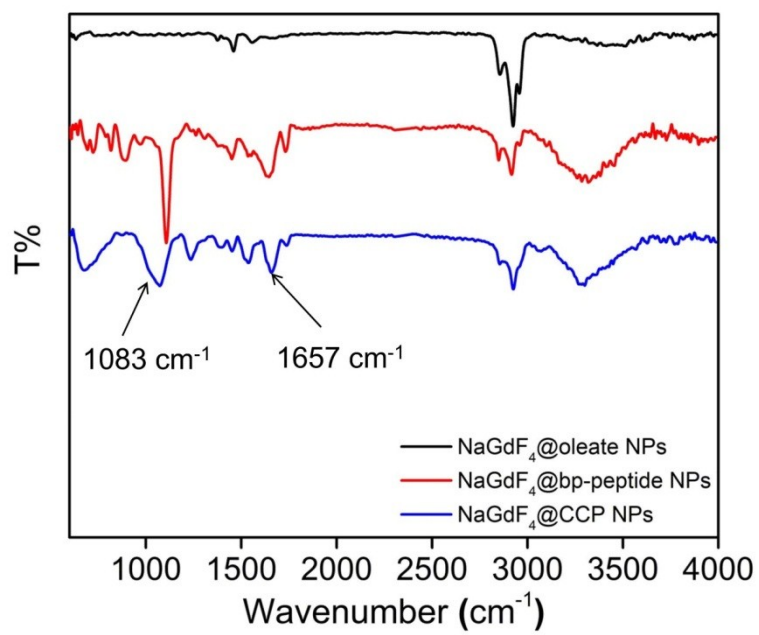


Fig. S2 FTIR spectra of as-prepared nanoparticles.

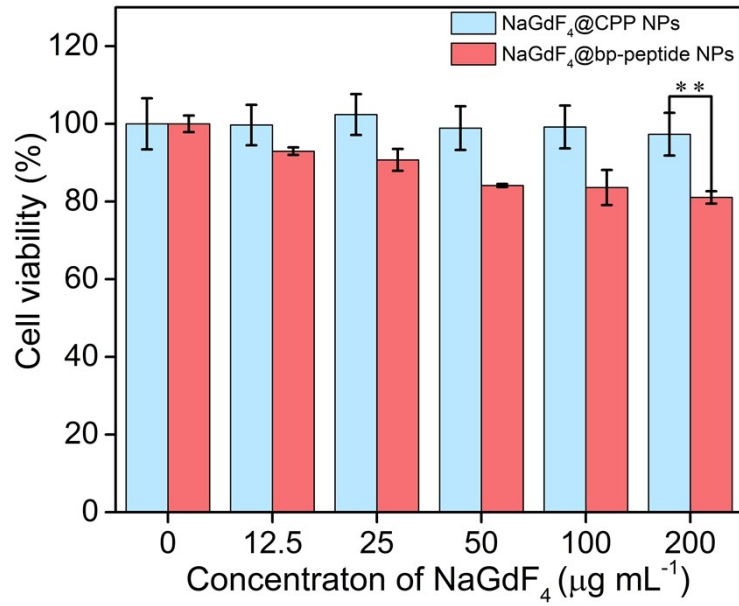


Fig. S3 Cell viabilities of 293 cells after incubated with various concentrations of NaGdF₄@bp-peptide NPs and NaGdF₄@CPP NPs for 24 h, respectively (n=5, **P<0.01 from an analysis of variance with Tukey's post-test).

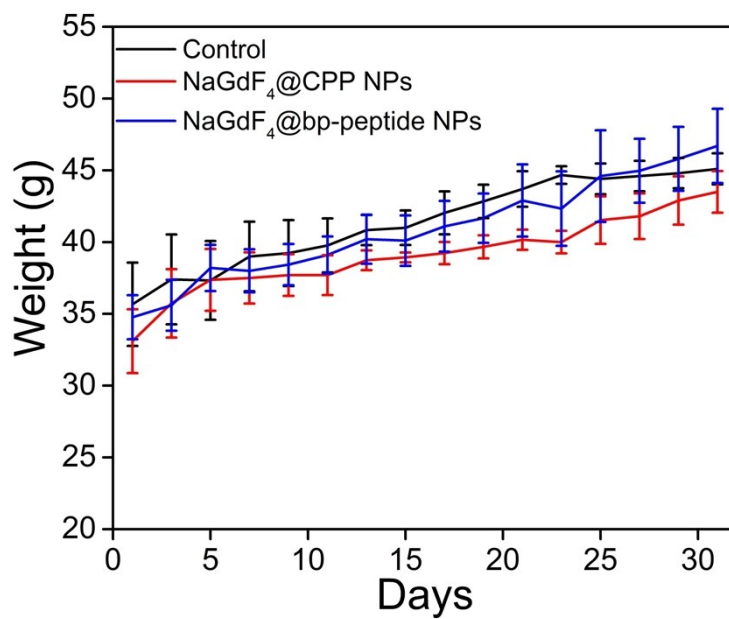


Fig. S4 Body weight changes of the health Kunming mice with and without intravenous injection of NaGdF₄@bp-peptide NPs and NaGdF₄@CPP NPs (10 mg Gd kg⁻¹ body weight) versus time.

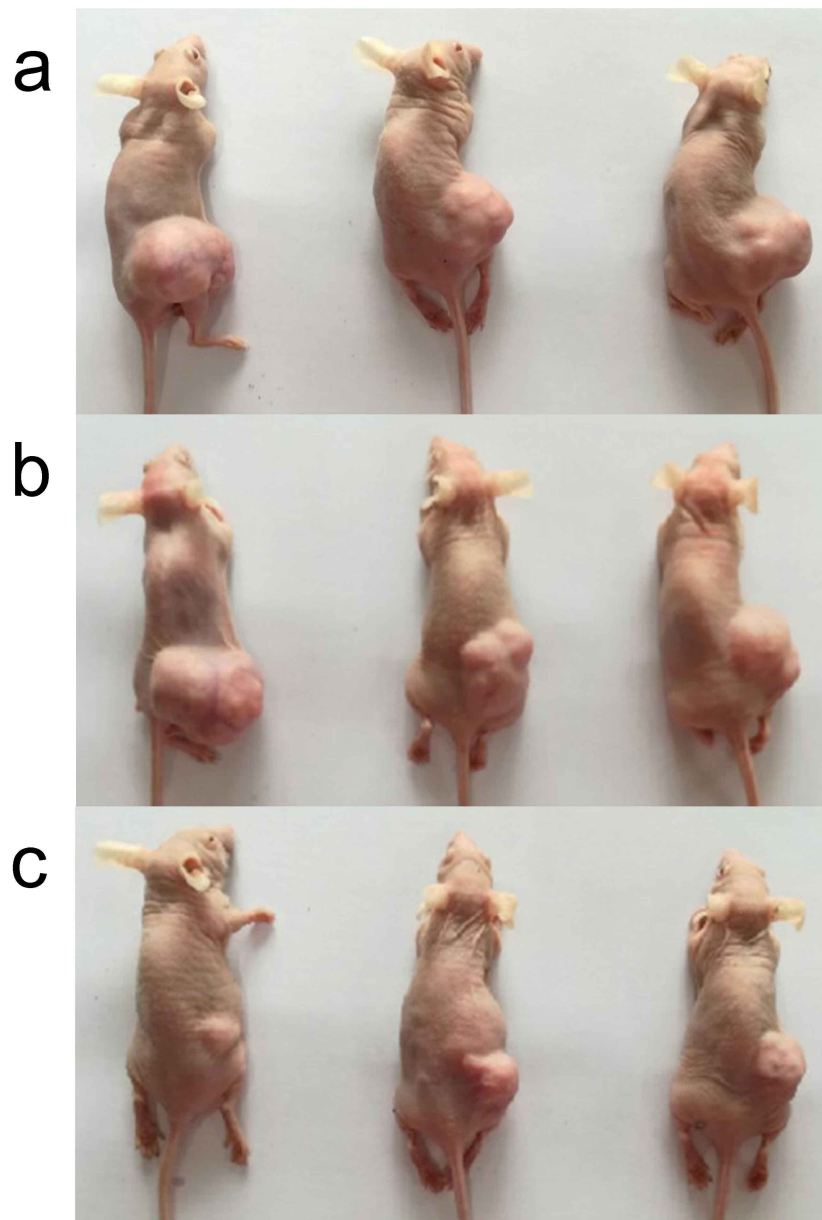


Fig. S5 Digital photographs of Balb/c nude mice after different intravenous treatments. (a) Control, (b) NaGdF₄@CPP NPs and (c) NaGdF₄@bp-peptide NPs (10 mg Gd kg⁻¹ body weight), respectively.

2. Additional Table

Table S1. Blood routine analysis of mice at 1 day, 7 day and 31 day of post-injection.

Test (1 day)	Units	Control	NaGdF ₄ @CPP NPs	NaGdF ₄ @bp-peptide NPs
WBC	×10 ⁹ /L	4.50	5.70	3.20
RBC	×10 ¹² /L	7.75	8.14	6.44
HGB	g/L	108	118	93
LY	%	62.3	65.6	69.9
MCH	pg	13.9	14.4	14.4
MCHC	g/L	350	332	349
MCV	fL	39.8	43.7	41.4
PLT	×10 ⁹ /L	446	442	1.08×10 ³
PDW	fL	14.6	14.9	14.0

Test(7 day)	Units	Control	NaGdF ₄ @CPP NPs	NaGdF ₄ @bp-peptide NPs
WBC	×10 ⁹ /L	6.30	6.40	5.90
RBC	×10 ¹² /L	8.70	8.54	8.83
HGB	g/L	135	120	130
LY	%	60.3	61.8	62.9
MCH	pg	15.5	14.0	14.7
MCHC	g/L	338	353	344
MCV	fL	45.9	39.7	42.8
PLT	×10 ⁹ /L	528	490	563
PDW	fL	14.0	15.0	13.2

Test (31 day)	Units	Control	NaGdF ₄ @CPP NPs	NaGdF ₄ @bp-peptide NPs
WBC	×10 ⁹ /L	4.90	4.80	3.90
RBC	×10 ¹² /L	6.94	7.24	6.15
HGB	g/L	112	110	98.0
LY	%	60.5	62.3	62.8
MCH	pg	11.8	12.5	13.7
MCHC	g/L	342	314	338
MCV	fL	35.8	42.8	40.8
PLT	×10 ⁹ /L	441	435	477
PDW	fL	14.9	13.8	13.6