Supporting Information

Inlaying Radiosensitizer onto the Polypeptide Shell of Drug-Loaded Ferritin for Imaging and Combinational Chemo-Radiotherapy

Qiuhong Zhang,^{1,2} Jingwen Chen,³ Jie Shen,^{1,2} Shixiong Chen,^{1,2} Kaicheng Liang,^{1,2} Han Wang,^{3,4} and Hangrong Chen^{*, 1}

1. State Key Laboratory of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of Ceramics, Chinese Academy of Sciences, Shanghai 200050, P. R. China 2. University of Chinese Academy of Sciences, 100049 Beijing, P. R. China

3. Department of Radiology, Shanghai General Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai 200080, P. R. China

4. National Engineering Research Center for Nanotechnology, Shanghai 200241, P. R. China

Corresponding author: <u>hrchen@mail.sic.ac.cn</u>



Figure S1. Hydrodynamic size of Dox@AFBS.

element	atomic ratio%
С	73.41
Ν	6.06
0	5.14
S	8.92
Bi	6.46
Total	100.00

Table S1. The elemental quantification of Dox@AFBS with energy-dispersive X-ray analysis



Figure S2. TEM images of AFBS at (A) low and (B) high magnifications.



Figure S3. Zeta potentials of AFn and Dox@AFn.



Figure S4. (A) UV-Vis absorption spectra of Dox at different concentrations. (B) Corresponding calibration curve obtained from the absorbance at 480 nm of different concentrations of Dox.



Figure S5. Digital photos of Dox@AFBS dispersed in PBS, FBS and DMEM for 1day and 5 days.



Figure S6. Time-dependent accumulation of bismuth element in tumor after mice receiving i.v. injection of Dox@AFBS.