The effect of size and surface ligands of iron oxide nanoparticles on blood compatibility

Tao Liu\textsuperscript{ab,†}, Ru Bai\textsuperscript{a,†}, Huige Zhou\textsuperscript{a,*}, Rongqi Wang\textsuperscript{c}, Jing Liu\textsuperscript{ad}, Yuliang Zhao\textsuperscript{ab}, Chunying Chen\textsuperscript{ab,*}

\textsuperscript{a} CAS Key Laboratory for Biomedical Effects of Nanomaterials and Nanosafety & CAS Center for Excellence in Nanoscience, National Center for Nanoscience and Technology, Chinese Academy of science, No. 11 Beiyitiao, Zhongguancun, Beijing 100190, China. E-mail: chenyh@nanoctr.cn or zhouhg@nanoctr.cn; Fax: +86-10-62656765; Tel: +86 10 8254 5560

\textsuperscript{b} University of Chinese Academy of Sciences, Beijing 100049, P. R. China

\textsuperscript{c} Department of Clinical Laboratory, Beijing Haidian Hospital, Haidian section of Peking University Third Hospital, Beijing 100080, China.

\textsuperscript{d} Faculty of Life Sciences & Medicine, Northwest University (NWU), Xi'an 710069, China

† Tao Liu and Ru Bai contributed equally to this work.
Figure S1. (A) The zeta potential distribution of SPIONs. The size characterization of Feraheme, (B) TEM image; (C) size distribution; (D) hydrodynamic size.

Figure S2. Characterizations of FTIR spectrum and magnetic property of Superparamagnetic iron oxide nanoparticles. (A) FTIR spectrum of SPIONs. (B) Field-dependent magnetization curve of SPIONs at room temperature.
Figure S3. (A) $T_1$ and $T_2$ weighted MRI images of SPIONs at different concentrations of iron. (B) Plots of $R_1$ and $R_2$ versus Fe concentration of SPIONs.
Figure S4. (A) The picture of SPIONs in PBS solution at 0 and 3 h. (B) The hydrodynamic size of SPIONs in PBS solution at 0, 1 and 3 h (n = 3).

Figure S5. The results of four coagulation tests after addition of healthy plasma into the abnormal plasma treated by Fe₃O₄@5PAA at the concentration of 5 mg/mL. **P<0.01 and ***P<0.001.