Electronic Supplementary Information

Controlled assembly of magnetic nanoparticles on microbubbles for multimodal imaging

Lei Duan, a,b Fang Yang, a Lina Song, a Kun Fang, a Jilai Tian, a Yijun Liang, a Mingxi Li, a Ning Xu, c Zhongda Chen, b Yu Zhang, a Ning Gu a

a State Key Laboratory of Bioelectronics, Jiangsu Key Laboratory for Biomaterials and Devices, School of Biological Science and Medical Engineering, Southeast University, Nanjing 210096, P.R. China.

b Department of Biomedical Engineering, Nanjing Medical University, 210029, P.R. China.
c Department of pathology, Nanjing Medical University, 210029, P.R. China.

It was found that as the amount of SPIO loaded was increased further (especially when the concentration was increased to a value greater than $8.45 \times 10^{-7}$ µg/MMB), the stability of the MMBs was affected (Figure S1.), resulting in the formation of agglomerates and deposits; these cannot be injected intravenously and thus have poor clinical applicability.

Figure S1. Optical microscopy images of MMBs coated different SPIO concentrations (A: $5.63 \times 10^{-7}$ µg/MMB, B: $8.45 \times 10^{-7}$ µg/MMB, C: $9.38 \times 10^{-7}$ µg/MMB).