Supporting Information

MRI/SPECT/Fluorescent tri-modal probe for evaluating the homing and therapeutic efficacy of transplanted mesenchymal stem cells in ischemic rats

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Figure S1:

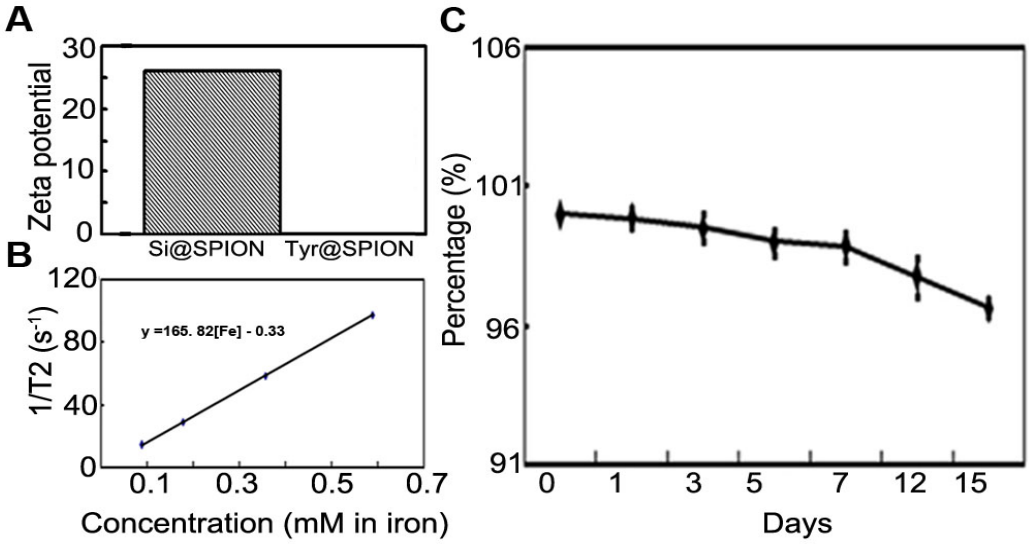

Figure S1. Characterization of fSiO4@SPIOs and $^{(125)}$I-fSiO4@SPIOs. A. Zeta potentials of fSiO4@SPIOs and ATE-modified fSiO4@SPIOs. **B**. T2 relaxation rates as function of I-fSiO4@SPIO concentrations (mM Fe). **C**. Radioactive stability of $^{(125)}$I-fSiO4@SPIOs in 10% FBS from 0 to 15 days.

Figure S2

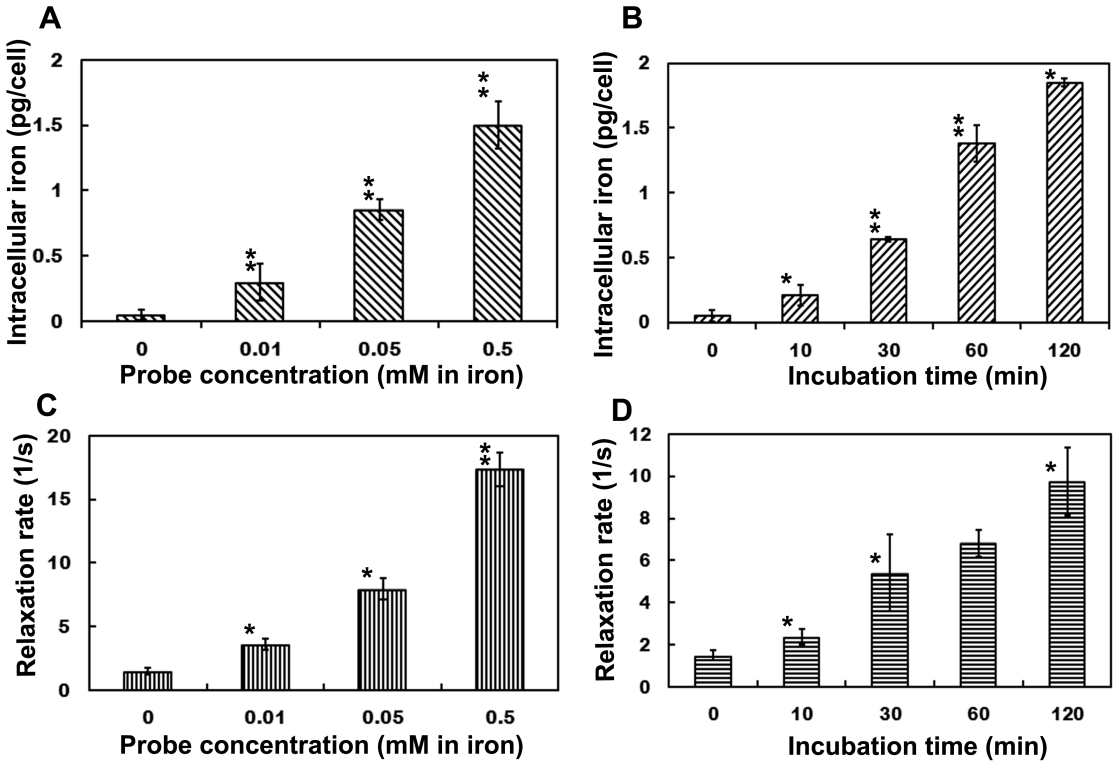

Figure S2. Determination of intracellular iron content and T2 relaxation rates of labeled cells. Intracellular iron content (A, B) and relaxation rates (C, D) of MSCs labeled at different probe concentrations (in iron) for 1h or at the probe concentration of 0.1 mM for different periods of time. * $p< 0.05$, ** $p< 0.01$.

Figure S3:

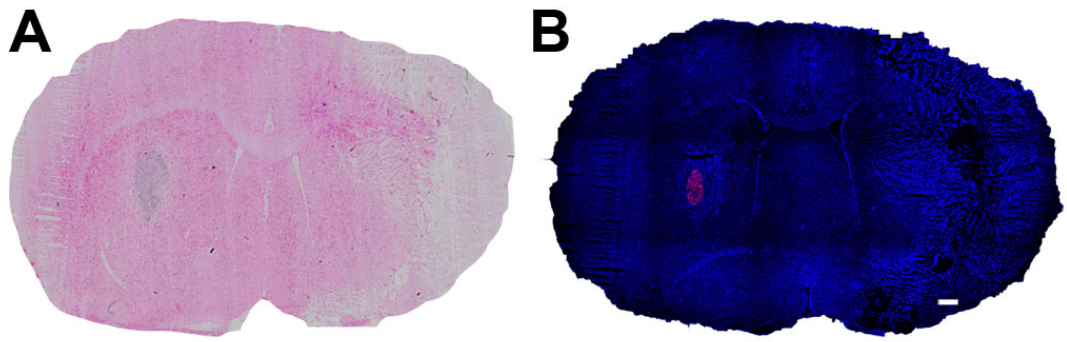

Figure S3. Histological analysis of IC injected $^{(125)}$I-fSiO4@SPIOs. Prussian blue staining (A) and confocal imaging (B) of brain sections at 14 days after IC injection of $^{(125)}$I-fSiO4@SPIOs. The left is the injection side and the right is the ischemic side. Arrows

indicated the Prussian blue-positive area. Scale bar = 500 μm.

Figure S4:

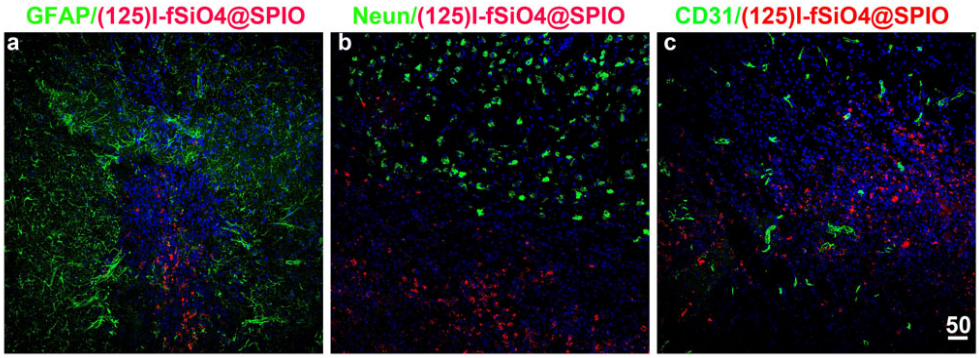

Figure S4. Immunohistochemical staining of ischemic brain sections after 14-day IC injection of $^{(125)}$I-fSiO4@SPIO-labeled MSCs. Confocal imaging of rat brain injected IC with $^{(125)}$I-fSiO4@SPIO-labeled MSCs stained with anti-GFAP (a, green), anti-NeuN (b, green) and anti-CD31 (c, green). Scale bar = 50 μm.