

Supporting Information to:

**Engineering microglia as intraoperative optical imaging agent
vehicles potentially for fluorescence-guided surgery in gliomas**

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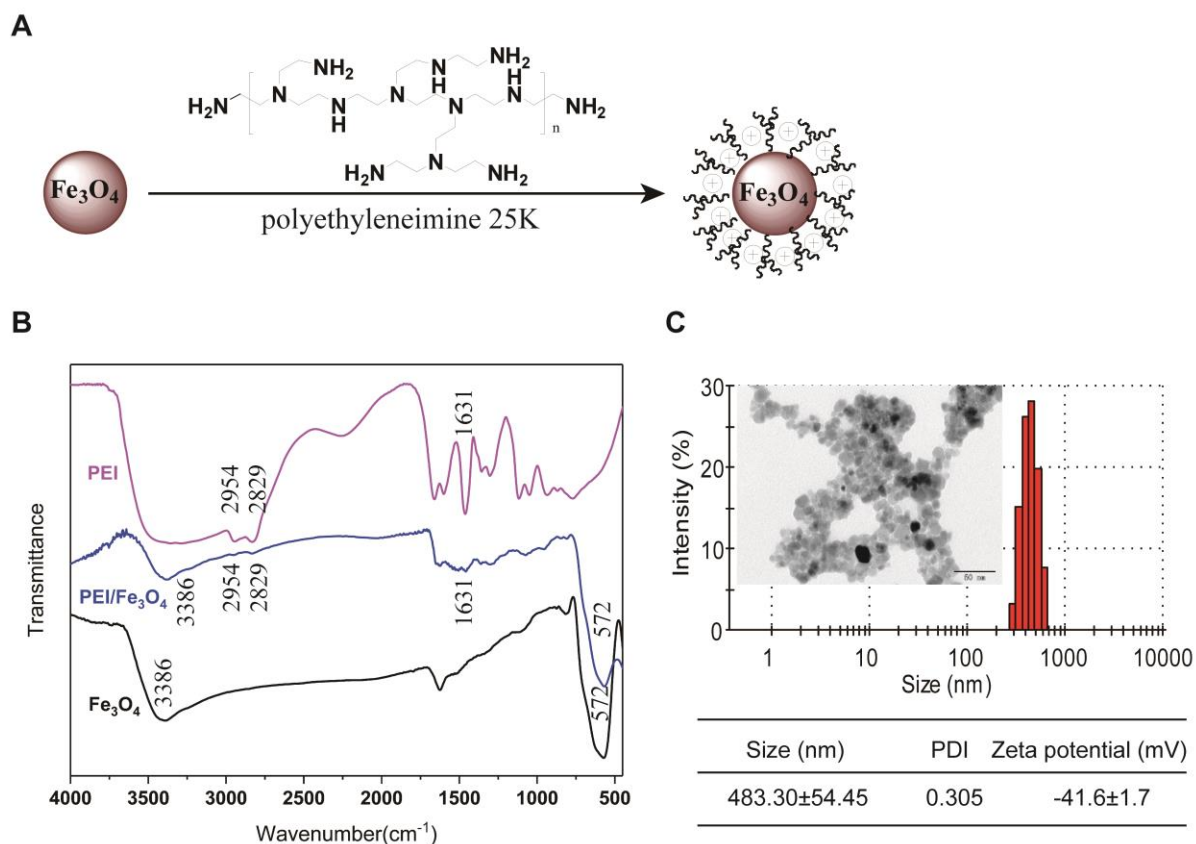


Figure S1. Characterization of polyethyleneimine 25K coated iron oxide nanoparticles (PEI/Fe₃O₄). (A) Schematic depiction of the preparation of PEI/Fe₃O₄. (B) FTIR spectra of Fe₃O₄, PEI and PEI/Fe₃O₄. The three peaks characteristic of PEI (2954 cm⁻¹, 2829 cm⁻¹, 1631 cm⁻¹) indicate immobilization of the PEI on the Fe₃O₄ surface. (C) DLS size distribution and zeta potential of PEI/Fe₃O₄. The TEM micrograph shown on the figure inset. Scale bar: 50 nm.

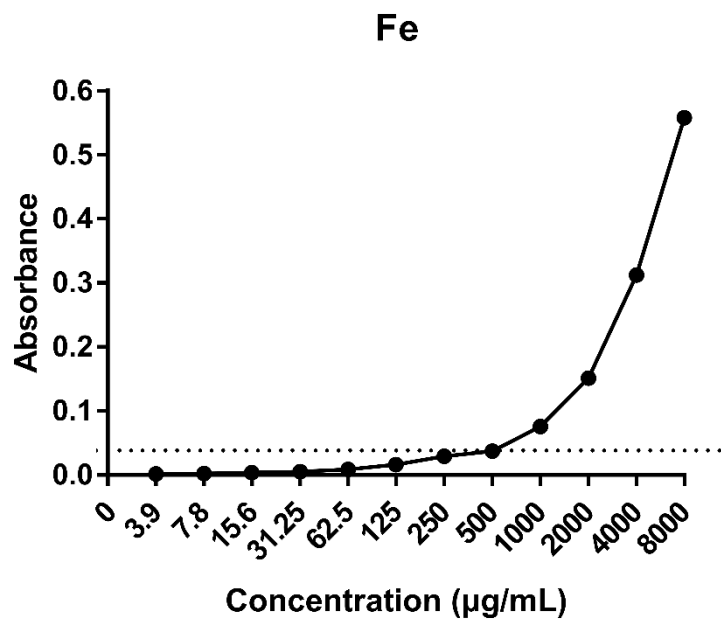


Figure S2. The variation in absorbance of CIONPs.

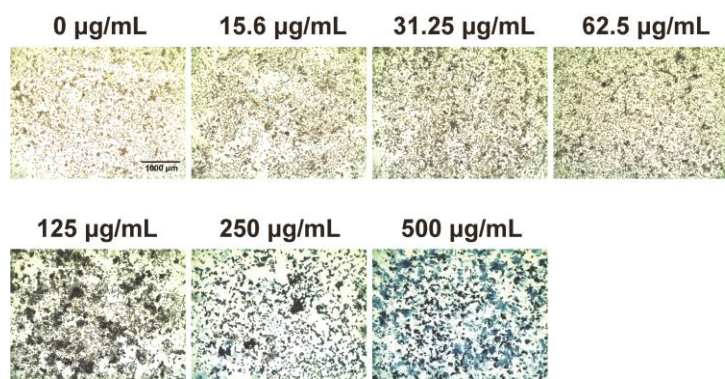


Figure S3. Intracellular CIONPs nanoparticles visualized by Prussian blue staining at 48 h.

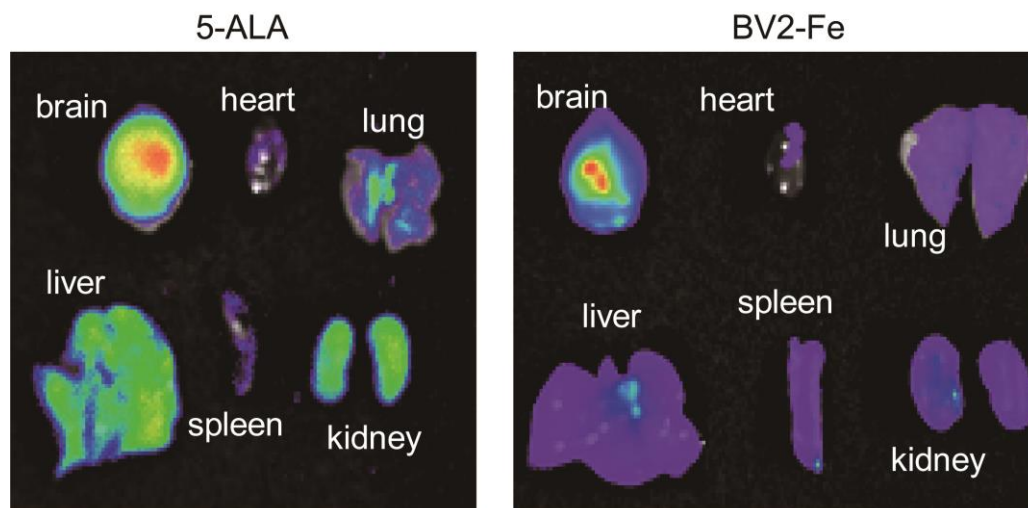


Figure S4. *Ex vivo* DiD fluorescence images of excised organs, including GBM-bearing brains, from mice sacrificed at 8 h after oral administration of 5-ALA or after internal carotid artery injection of BV2-Fe.