Supporting Information for:

In Vivo Clearance and Toxicity of Monodisperse Iron Oxide Nanocrystals

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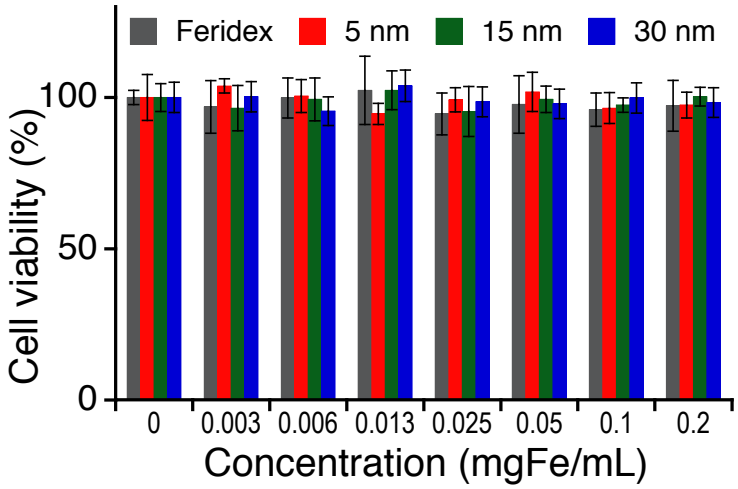

Figure S1. *In vitro* toxicity of iron oxide (IO) nanoparticles. HeLa cells were incubated with IO nanoparticles for 48 h and their viability was evaluated using MTT assay. Statistical analyses were performed with Student's t test (*$p < 0.05$ for the difference between monodisperse IO nanoparticles and Feridex® nanoparticles, two-tailed, unpaired, n = 4, error bars = standard deviation). There was no significant difference between monodisperse IO nanoparticles and Feridex® nanoparticles at each concentration of the nanoparticles.

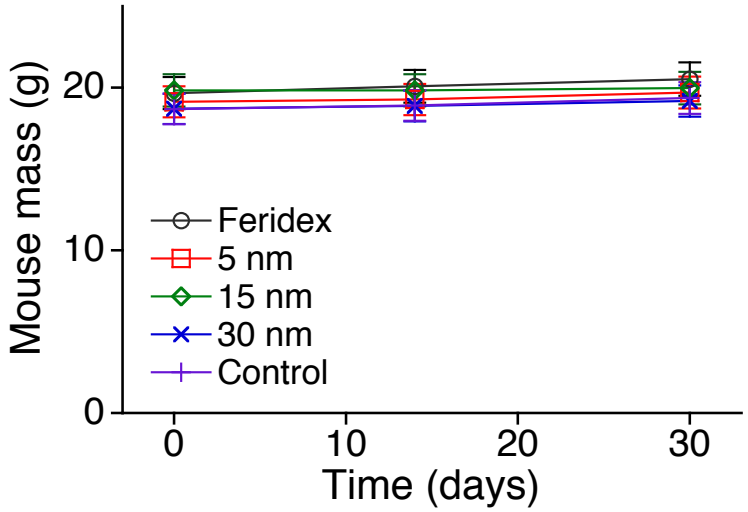

Figure S2. Body mass of mice injected with PEG—phospholipid coated IO nanocrystals prepared via the organometallic route (sizes of ~5 nm, ~15 nm and ~30 nm) and commercially obtained Feridex® compared with PBS control, as indicated, as a function of days post-injection (5 mgFe/kg). There is no statistically significant difference in the mass change between control (PBS) and IO nanoparticle injected mice. Statistical analyses were performed with Student's t test (*$p < 0.05$ for the difference between IO nanoparticles and PBS, two-tailed, unpaired, n = 4~6, error bars = standard deviation). There was no significant difference between IO nanoparticles and PBS at each time point.

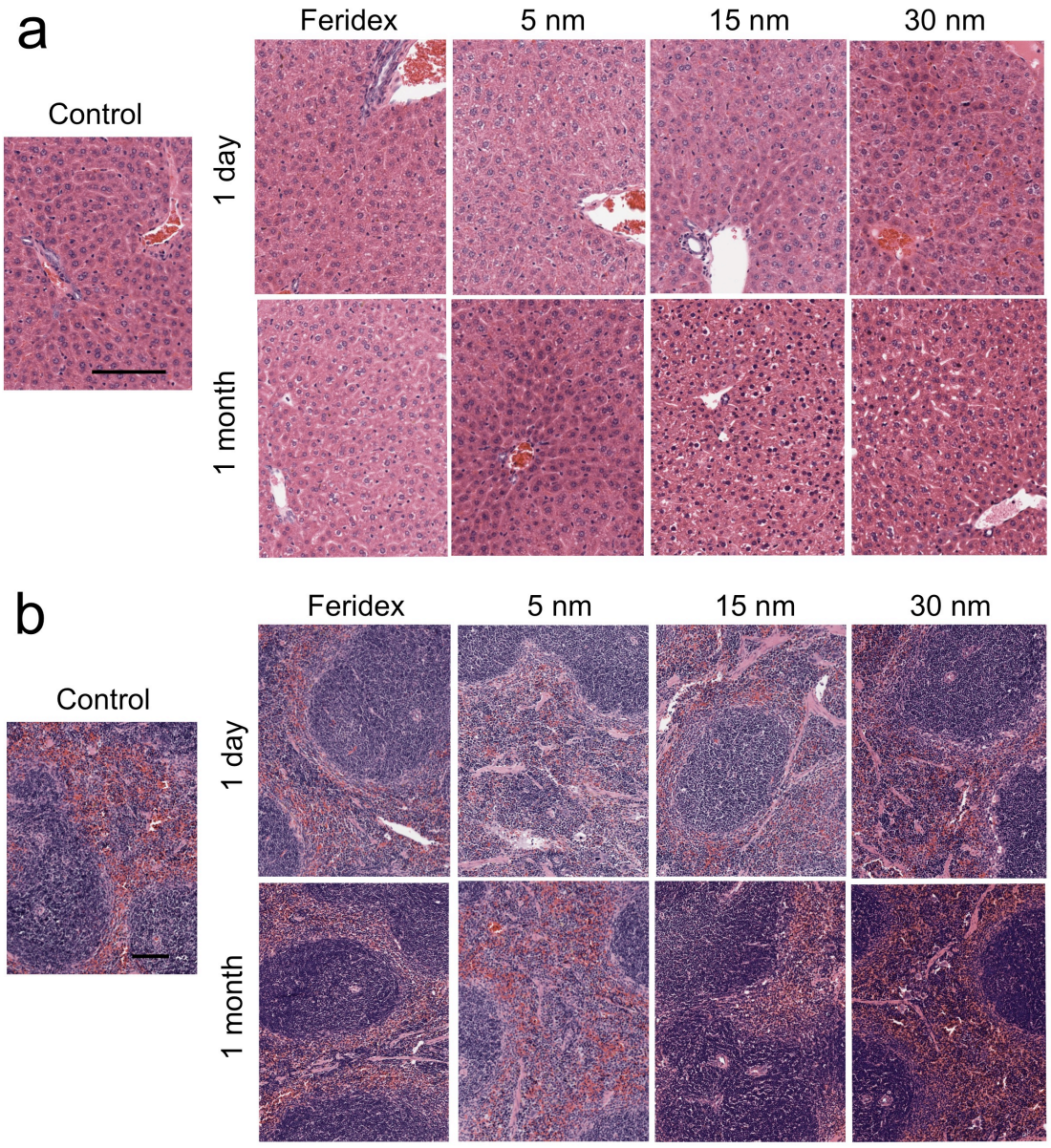

Figure S3. Liver (a) and spleen (b) histology. Livers and spleens were harvested from mice before, 1 day, and 1 month after intravenous injection of 5 mgFe/kg PEG—phospholipid coated IO nanoparticles prepared via the organometallic route (sizes of ~5 nm, ~15 nm and ~30 nm) or Feridex® iron oxide nanoparticles, as indicated. Organs were stained with hematoxylin and eosin. Liver histology samples obtained one day post-injection showed some swollen and dark Kupffer cells, presumably due to uptake of the nanoparticles. The scale bar is 100 μm for all images.