Supporting Information

Iron (III) chelated paramagnetic polymeric nanoparticle as next-generation T_1-weighted MRI contrast agent

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Order	Reagent	Amount (g/L)	Sample
1	NaCl	6.547	A
2	$NaHCO_3$	2.268	B
3	KCl	0.373	C
4	$Na_2HPO_4.2H_2O$	0.178	D
5	$MgCl_2.2H_2O$	0.305	E
6	$CaCl_2.2H_2O$	0.368	F
7	Na_2SO_4	0.071	
8	$(CH_2OH)_3CNH_2$	6.057	

Table 1 Composition of simulated body fluid in order of mixing reagents. Samples A–C is prepared under ambient conditions while samples D–F at 37 °C while stirring.

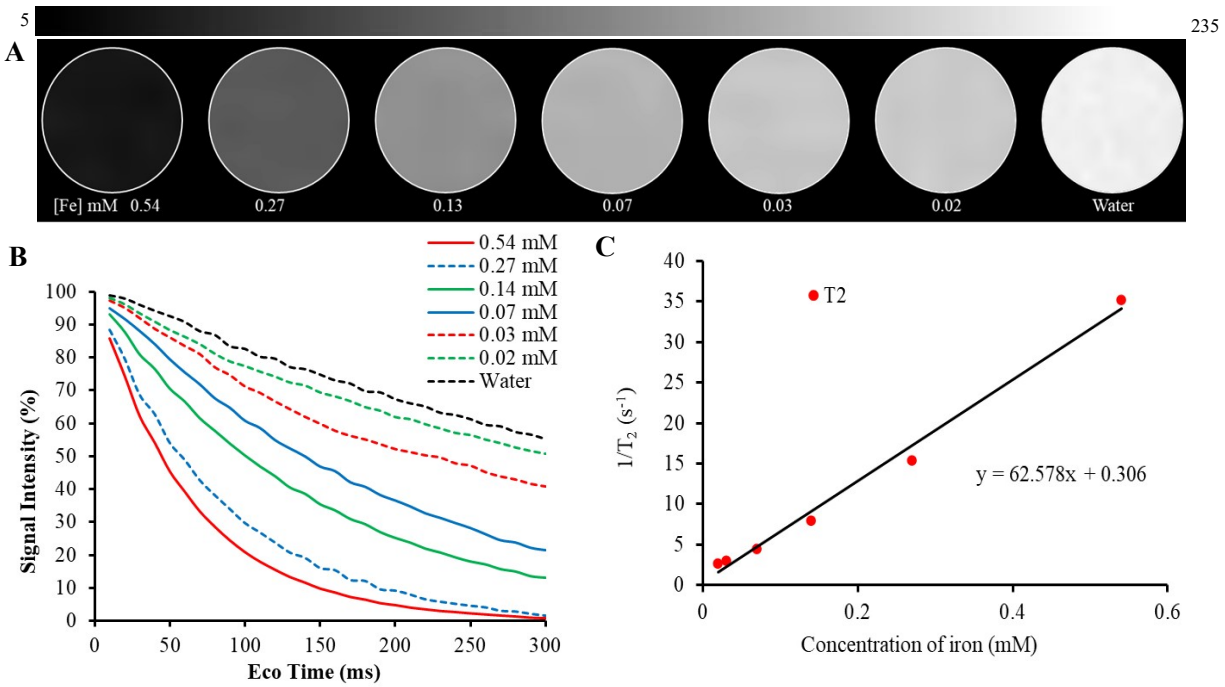

Figure S1 Relaxivity study of iron (III) chelated polymeric NPs in the ultra-high magnetic field. A) T_2-weighted MR phantom images of iron (III) chelated PLGA NPs aqueous suspensions with different concentrations acquired using TR/TE= 1500/16 ms corresponding to recovery curve B) at ultra-high-field (14.1 T) as a function of iron concentration. The corresponding signal intensity of the phantoms was obtained by drawing the region of interest (ROI) using paravision software. C) T_2 transverse relaxation rate against Fe^{3+} concentration measured at 14.1 T MRI system at room temperature.

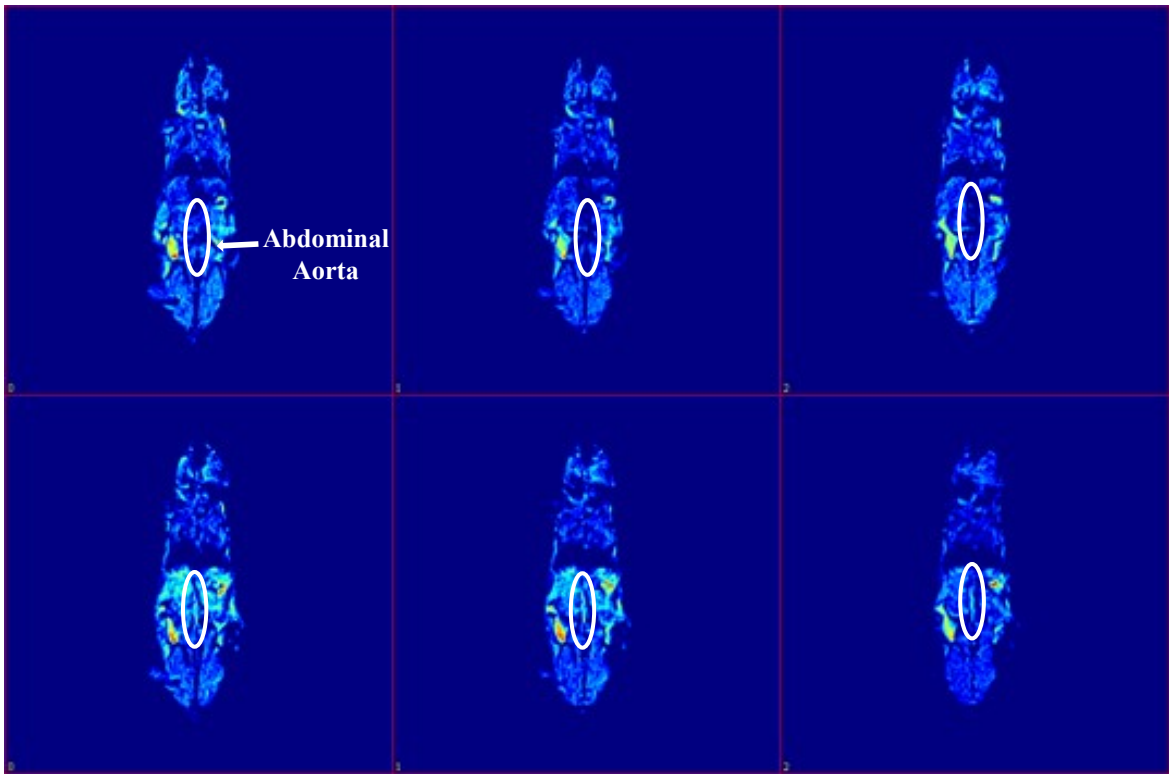

Figure S2. Coronal slices (1, 2, 3 from left to right) of pre-injection (upper panel) and at-injection (lower panel) of Fe-PLGA NPs showing the contrast enhancement of in abdominal aorta in mice during dynamic imaging at 3 T.