Supporting Information

Expansile Nanoparticles Encapsulate Factor Quinolinone Inhibitor 1 and Accumulate in Murine Liver upon Intravenous Administration

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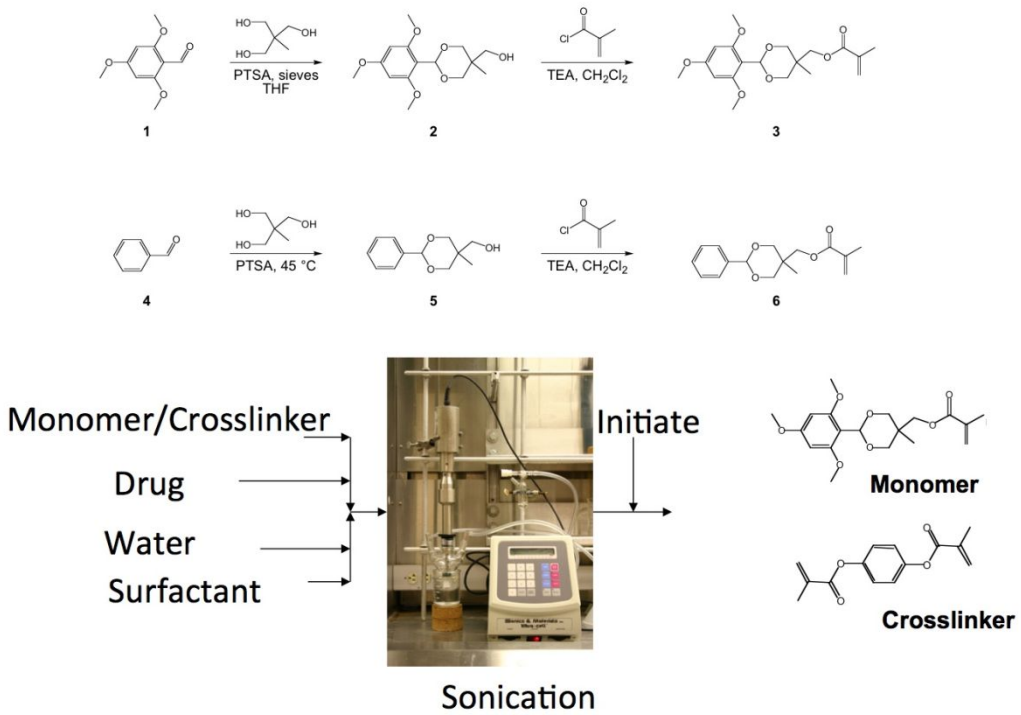
Scheme S1. Scheme for the preparation of the polymer/nanoparticles.



Leukocytes

Mouse #	Treatment	white blood cells			neutrophils			lymphocytes			monocytes			eosinophils			basophils		
		result (in K/µl)	normal range	hematological abnormalities	result (in K/µl)	normal range	hematological abnormalities	result (in K/µl)	normal range	hematological abnormalities	result (in K/µl)	normal range	hematological abnormalities	result (in K/µl)	normal range	hematological abnormalities	result (in K/µl)	normal range	hematological abnormalities
1	PBS	high	1.8 - 10.7	leukocytosis	176.14	0.1 - 2.4	neutrophilia	32.44	0.9 - 9.3	lymphocytosis	9.47	0.0 - 0.4	monocytosis	120.45	0.0 - 0.2	eosinophilia	53.21	0.0 - 0.2	basophilia
2	PBS	high		leukocytosis	185.31		neutrophilia	29.32		lymphocytosis	8.73		monocytosis	152.58		eosinophilia	85.37		basophilia
3	PBS	high		leukocytosis	177.98		neutrophilia	29.62		lymphocytosis	9.42		monocytosis	138.64		eosinophilia	71.05		basophilia
4	eNP	high		leukocytosis	176.71		neutrophilia	30.31		lymphocytosis	9		monocytosis	132.63		eosinophilia	65.73		basophilia
5	eNP	6.28		normal	1.96		normal	3.82		normal	0.33		normal	0.12		normal	0.04		normal
6	eNP	8.66		normal	2.61		neutrophilia	4.77		normal	0.48		monocytosis	0.56		eosinophilia	0.24		basophilia
7	eNP	9.6		normal	2.48		neutrophilia	6.73		normal	0.32		normal	0.05		normal	0.02		normal
8	eNP	10.28		normal	3.72		neutrophilia	4.33		normal	0.8		monocytosis	1.05		eosinophilia	0.38		basophilia

Erythrocytes

Mouse #	Treatment	red blood cells			hemaglobin			hematocrit			mean corposcular volume			mean corposcular hemoglobin			mean corposcular hemoglobin concentration			red cell distribution		
		result (in M/µl)	normal range	hematological abnormalities	result (in g/dl)	normal range	hematological abnormalities	result (in %)	normal range	hematological abnormalities	result (in fl)	normal range	hematological abnormalities	result (in g/dl)	normal range	hematological abnormalities	result (in g/dl)	normal range	hematological abnormalities	result (in %)	normal range	hematological abnormalities
1	PBS	6.84	6.36 - 9.42	normal	high	11.0 - 15.1	high	38.8	35.1 - 45.4	normal	56.7	45.4 - 60.3	normal	high	14.1 - 19.3	high	high	30.2 - 34.2	high	18	12.4 - 27.0	normal
2	PBS	9.39		normal	high		high	50.9		polycythemia	54.2		normal	high		high	high		high	19.5		normal
3	PBS	8.56		normal	high		high	46		polycythemia	53.7		normal	high		high	high		high	19.4		normal
4	eNP	8.25		normal	high		high	47.5		polycythemia	57.6		normal	high		high	high		high	18.9		normal
5	eNP	8.34		normal	15.1		normal	50		polycythemia	59.9		normal	18.1		normal	30.2		normal	14.7		normal
6	eNP	6.91		normal	11.1		normal	38.8		normal	56.2		normal	16.1		normal	28.6		low	14.6		normal
7	eNP	8.47		normal	14.5		normal	48.4		polycythemia	57.1		normal	17.1		normal	30		low	14.7		normal
8	eNP	9.61		polycythemia	16.1		high	54		polycythemia	56.2		normal	16.8		normal	29.8		low	17.1		normal

Thrombocytes

Mouse #	Treatment	platelet count			mean platelet volume		
		result (in K/µl)	normal range	hematological abnormalities	result (in fl)	normal range	hematological abnormalities
1	PBS	1761	592 - 2972	normal	5.7	5.0 - 20.0	normal
2	PBS	1755		normal	6.1		normal
3	PBS	2077		normal	5.7		normal
4	eNP	1344		normal	6.1		normal
5	eNP	222		thrombocytopenia	5.8		normal
6	eNP	521		thrombocytopenia	6		normal
7	eNP	253		thrombocytopenia	6.1		normal
8	eNP	384		thrombocytopenia	5.5		normal

Table S1. Hematological analysis of eNP- *versus* PBS-treated CD-1 mice 24 h after injection. In eNP-injected mice numbers 5-8, little toxicity was observed with only a slight increase in neutrophil, monocyte, eosinophil, and basophil counts and minimal polycythemia; noticeably, these mice experienced thrombocytopenia. In mice numbers 1-4 (three control mice and one eNP-treated mouse), the initial tail-vein injection was inefficient, therefore resulting in a second attempt of tail vein injection; this is likely the cause for abnormalities observed in leukocyte counts and other profiles.

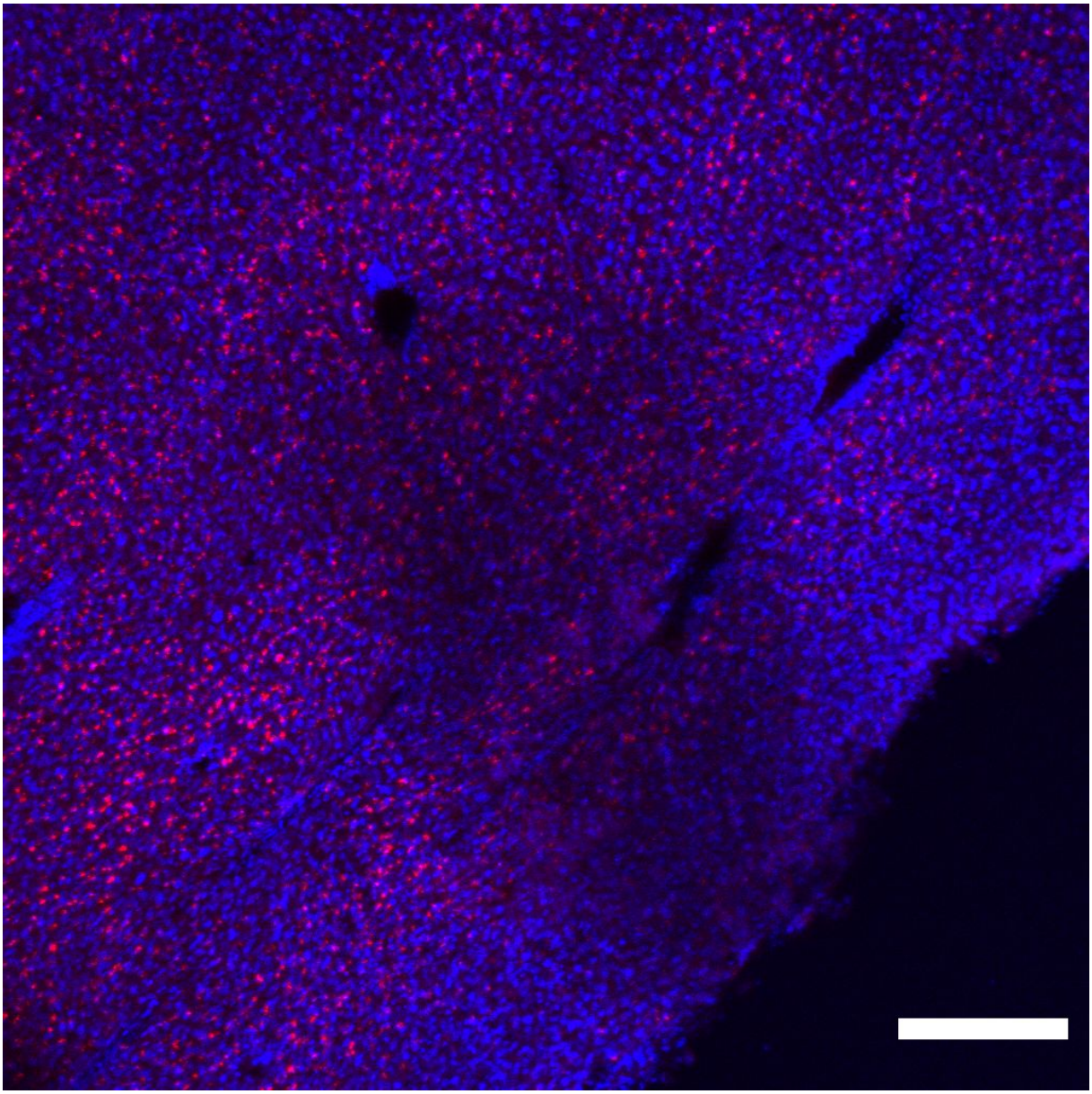


Figure S1. Accumulation of rho-eNPs in mouse liver after 48 hours. Image of liver section of CD-1 mouse treated with rho-eNP intravenously at a dosage of 62.5mg/kg. Animal was sacrificed 48 hours after injection and liver was fixed, cryosectioned and stained with Hoechst. Red and blue denote rho-eNPs and Hoechst, respectively. Scale bar is 200 μm

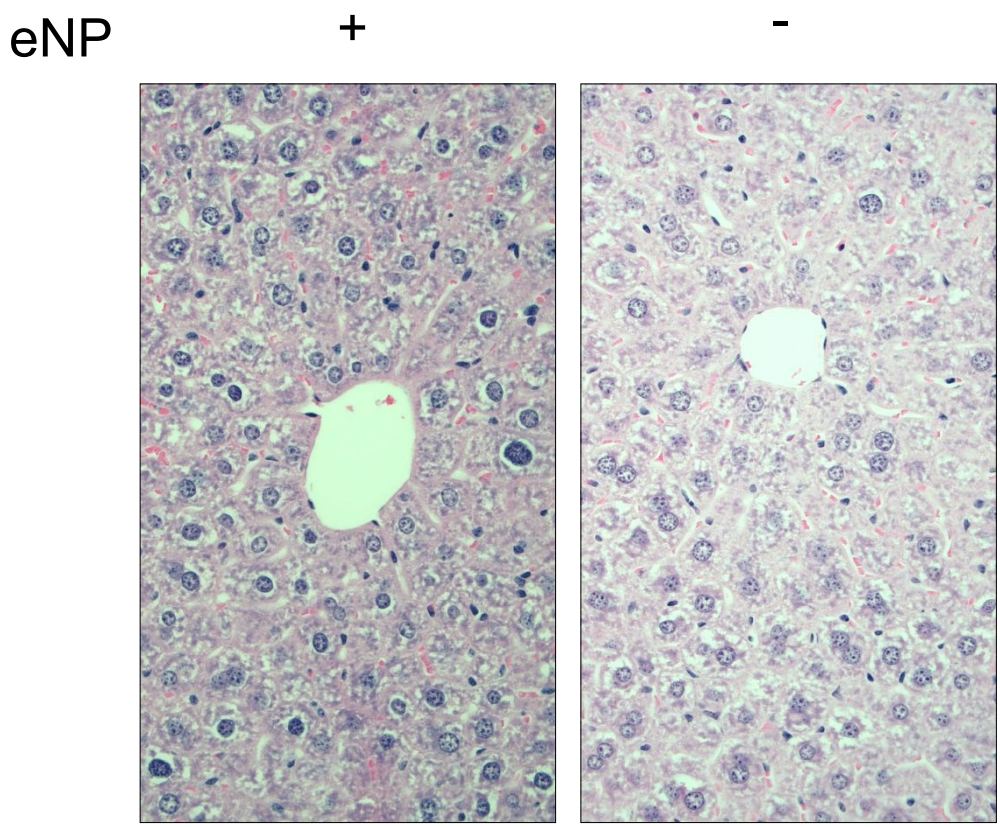


Figure S2. Higher magnification of H&E stained liver sections of eNP- *versus* PBS-treated CD-1 mice 24 h after injection. Images of H&E stained sections of liver of eNP- and vehicle-treated male CD-1 mice 24 hours after injection. Both treatment groups exhibited minor toxicological abnormalities, including Kupffer cell hyperplasia, enlarged or lost nuclei, and vacuolation. Because these observations occurred in both treatment conditions, it suggests that these abnormalities resulted from damage incurred by the tail-vein injection, the animal euthanasia, or the organ processing.

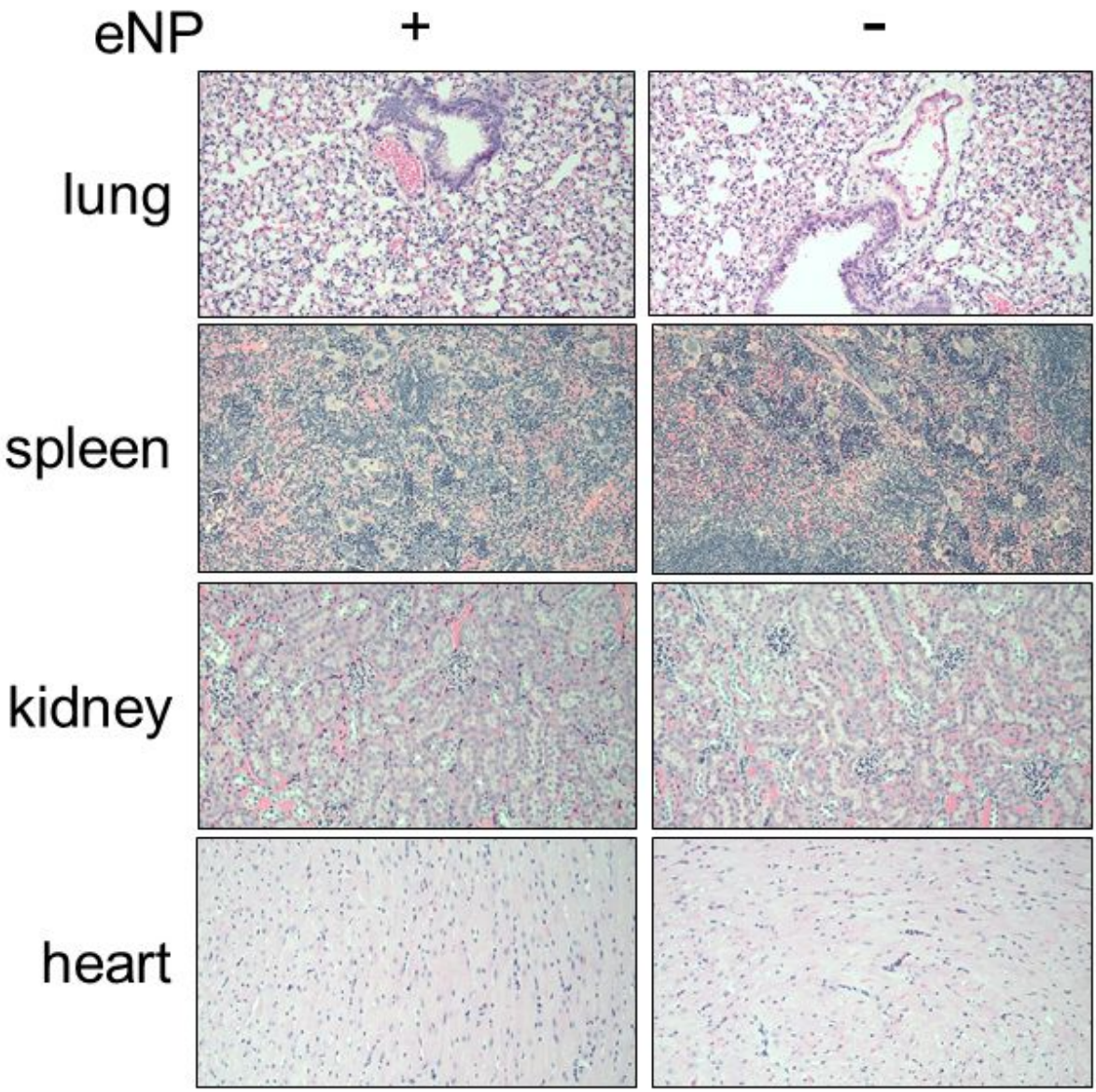


Figure S3. Pathological examination of H&E stained organs sections of eNP-*versus* PBS-treated CD-1 mice 24 h after injection. Images of H&E stained sections of heart, lung, kidney, and spleen of eNP- and vehicle-treated male CD-1 mice 24 hours after injection. No toxicity was detectable in treated versus control organs.