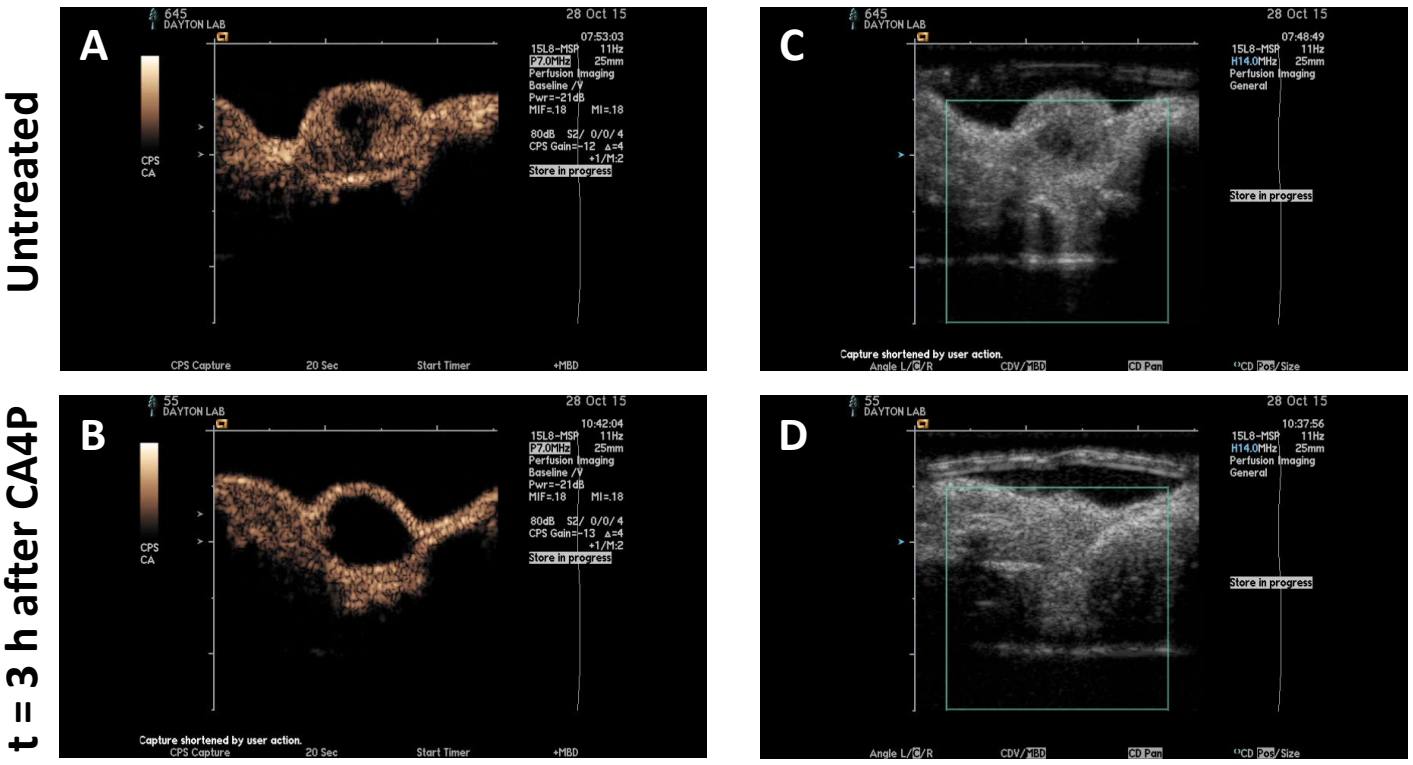
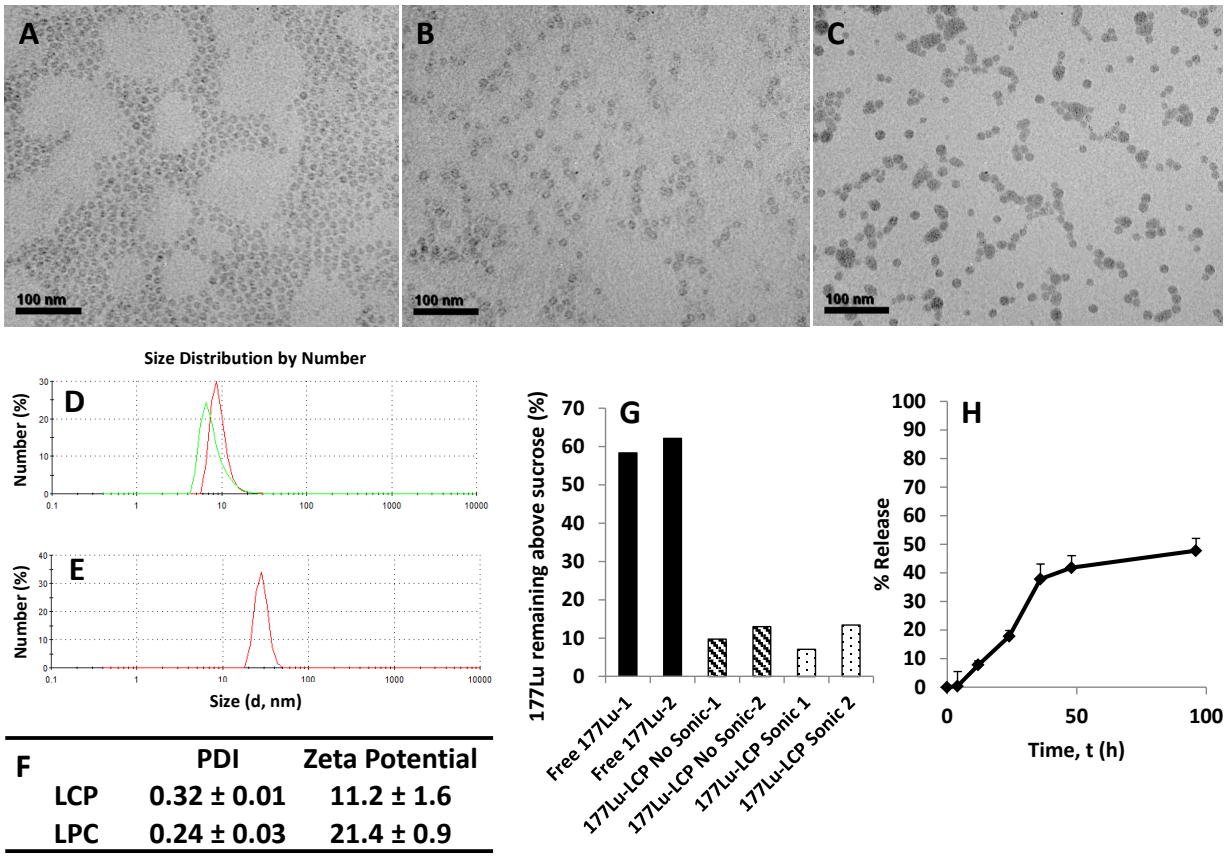


Figure S1: CA4P vessel occlusion, continued. Videos are of tumors from mice receiving microbubbles as an ultrasound contrast agent t = 3 h after CA4P treatment or untreated control. Real-time microbubble perfusion into the middle tumor section of untreated (A) or CA4P-treated (B) mice. Microbubble perfusion at t = 20 s in each imaged section along the tumor in untreated (C) or CA4P-treated (D) mice.



F	PDI	Zeta Potential
LCP	0.32 ± 0.01	11.2 ± 1.6
LPC	0.24 ± 0.03	21.4 ± 0.9

Figure S2: Nanoparticles were characterized using TEM and DLS. A) TEM image of ^{177}Lu-LCP cores; B) TEM image of ^{90}Y-LCP cores. C) TEM image of LPC cores. D) DLS number distribution of final LCP size; Red = ^{177}Lu-LCP, Green = ^{90}Y-LCP. E) DLS number distribution of final LPC nanoparticle size. F) PDI and Zeta Potential for LCP and LPC, n = 3. G) Quantification of ^{177}Lu remaining in top aqueous layer after sucrose gradient centrifugation; most free ^{177}Lu remained at the top while most LCP-encapsulated ^{177}Lu was centrifuged lower. There was no difference in this ^{177}Lu distribution between sonicated and non-sonicated LCP ($p > 0.78$). n = 2. H) Release profile of ^{177}Lu-LCP in tris-buffered saline at pH 7.4 and 37°C. n = 2.

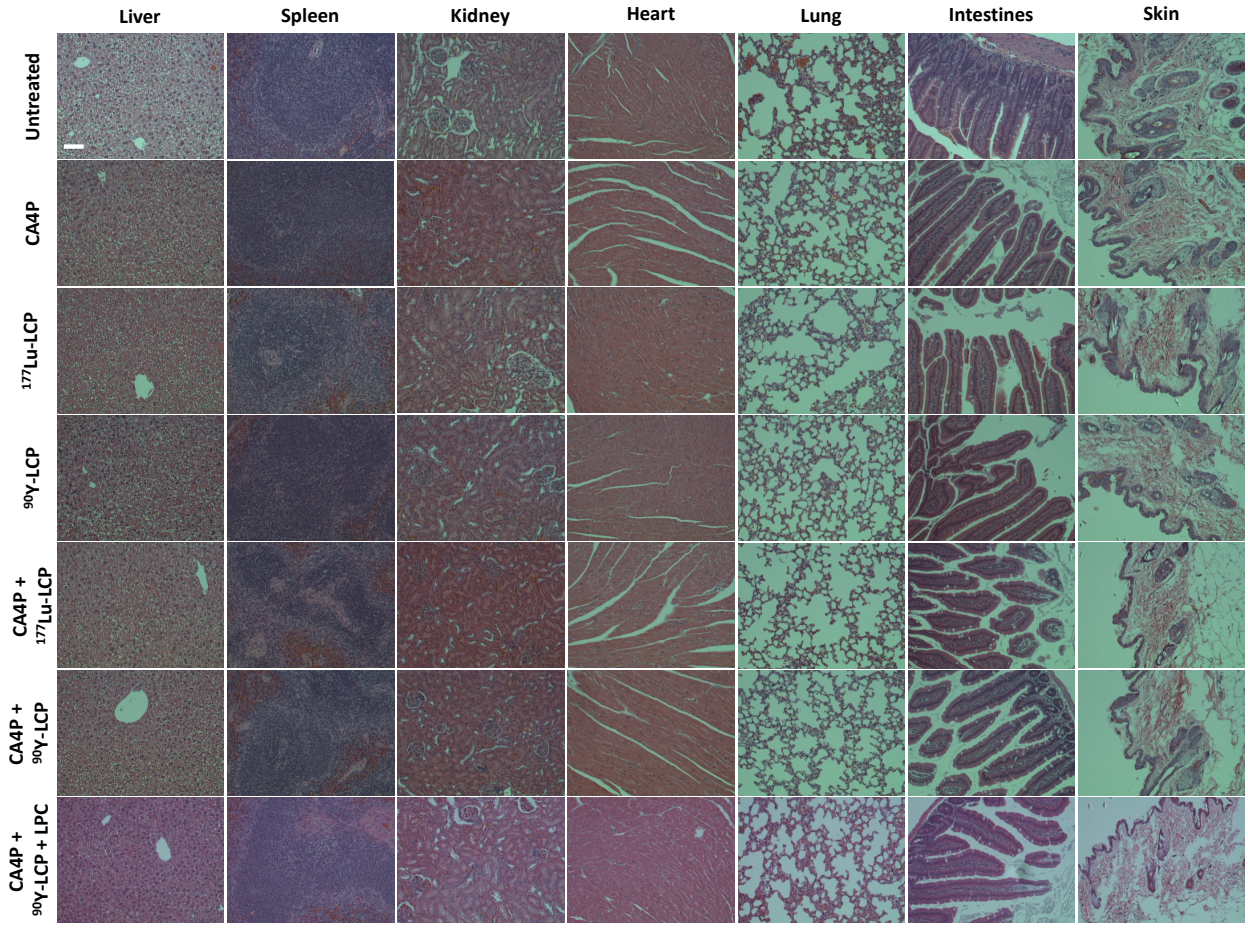


Fig S3: Healthy CD-1 mouse organs fixed, sectioned, and stained with hematoxylin and eosin 10 days after treatment to test cumulative toxicity. Scale bar = 150 µm.