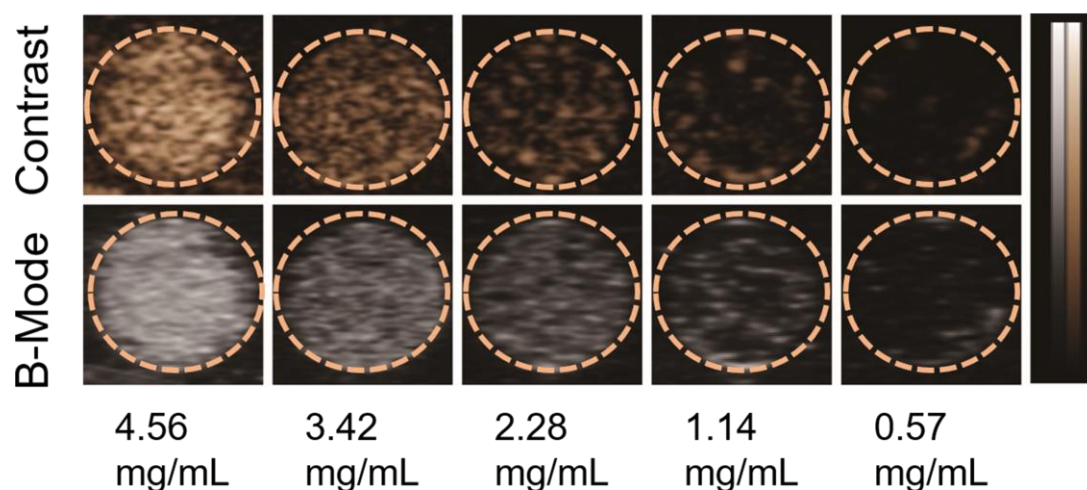


## Supporting Information

### Evaluation of Perfluoropropane ( $C_3F_8$ )-Filled Chitosan Poly-Acrylic Acid Nanobubbles for Ultrasound Imaging of Sentinel Lymph Nodes and Tumors

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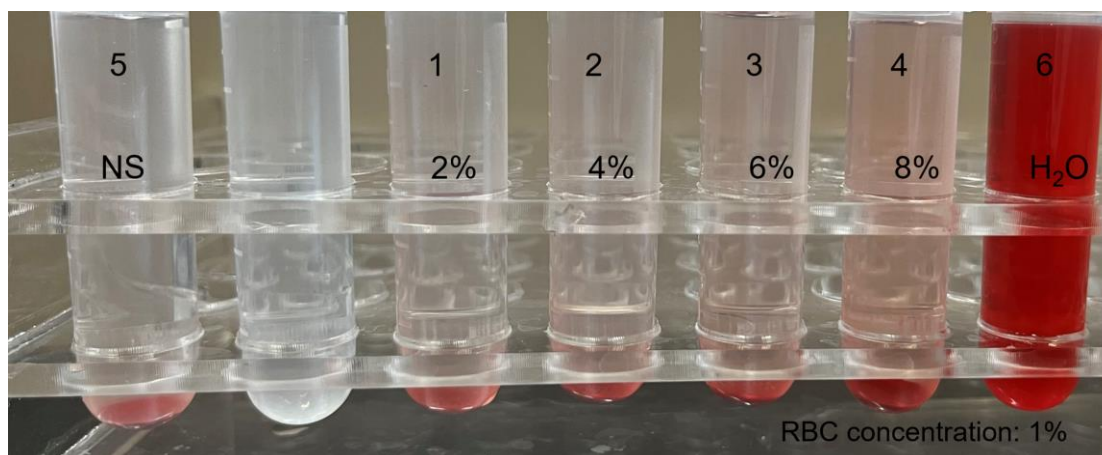


**Fig. S1** In vitro ultrasound image enhancement. Ultrasound images of an agar gel phantom containing  $C_3F_8$ -CS-PAA NBs at concentration ranging from 0.57 to 4.56 mg/mL. Images were acquired at B-mode and contrast mode, as indicated.

**Table S1** Design of hemolysis assay

	Group numbers					
	1	2	3	4	5	6
C <sub>3</sub> F <sub>8</sub> -CS-PAA/mL	0.1	0.2	0.3	0.4	-	-
NS/mL	2.4	2.3	2.2	2.1	2.5	-
H <sub>2</sub> O/mL	-	-	-	-	-	2.5
2% RBC/mL	2.5	2.5	2.5	2.5	2.5	2.5

**Abbreviations:** NS, normal saline; RBC, red blood cell; C<sub>3</sub>F<sub>8</sub>-CS-PAA, Perfluoropropane (C<sub>3</sub>F<sub>8</sub>)-Filled Chitosan Poly-Acrylic Acid; –, not applicable.



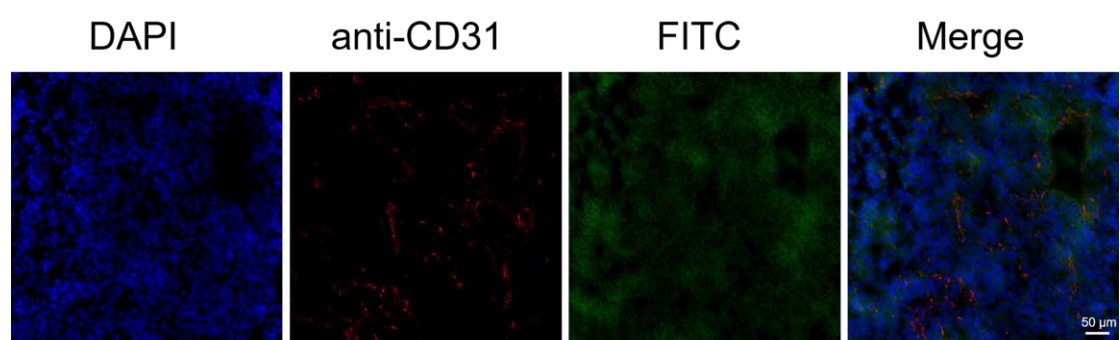
**Fig. S2** The hemolysis image of C<sub>3</sub>F<sub>8</sub>-CS-PAA (1-4: different concentrations of C<sub>3</sub>F<sub>8</sub>-CS-PAA, 5: NS, 6: deionized water).

**Abbreviations:** NS, normal saline; RBC, red blood cell; C<sub>3</sub>F<sub>8</sub>-CS-PAA, Perfluoropropane (C<sub>3</sub>F<sub>8</sub>)-Filled Chitosan Poly-Acrylic Acid.

**Table S2** Hemolysis ratio of the C<sub>3</sub>F<sub>8</sub>-CS-PAA at different concentrations

	Group numbers			
	1	2	3	4
C <sub>3</sub> F <sub>8</sub> -CS-PAA concentration (%)	2	4	6	8
HR (%)	0.20	0.69	1.69	4.86

**Abbreviations:** HR, hemolysis ratio; C<sub>3</sub>F<sub>8</sub>-CS-PAA, Perfluoropropane (C<sub>3</sub>F<sub>8</sub>)-Filled Chitosan Poly-Acrylic Acid.



**Fig. S3** Confocal images of tumor slices collected from mice 1 h post-injection of FITC-labeled C<sub>3</sub>F<sub>8</sub>-CS-PAA NBs. The green and red signals were from the fluorescence of FITC and anti-CD31-stained blood vessels, respectively.