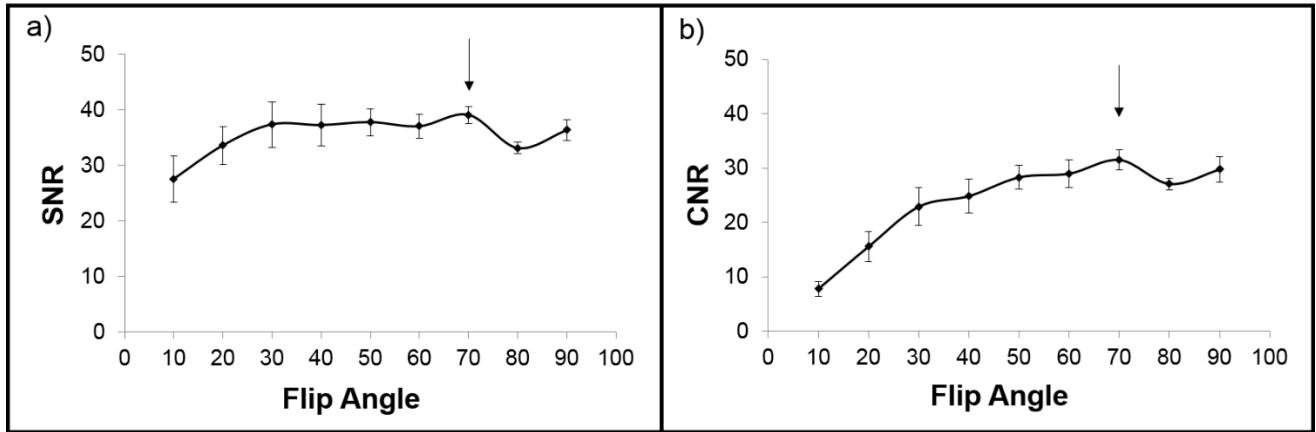
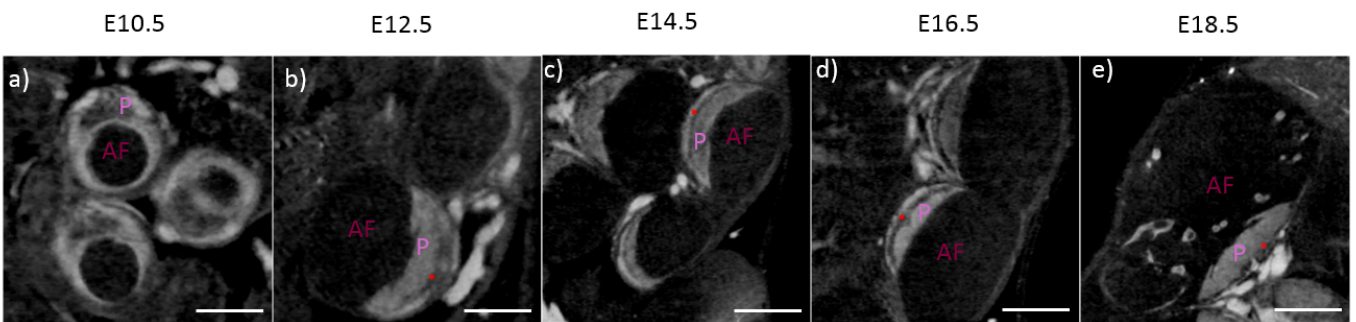


1 Supplementary Material



2
3 **Figure S1:** *In vivo* optimization study to determine the flip angle that provides highest a)
4 SNR and b) CNR for vascular imaging using a liposomal-Gd contrast agent (n=4 C57BL/6
5 mice). SNR was calculated as the ratio of signal in murine vasculature to background
6 noise. CNR was calculated as the difference in vasculature and background tissue SNR.
7 Estimates of SNR and CNR peaked at a flip angle of 70°.

8



9

10 **Figure S2:** High-resolution, contrast-enhanced CT enables visualization of the
11 retroplacental clear space (RPCS) after 12.5 days of gestation. Post-contrast CT images
12 at a) 10.5, b) 12.5, c) 14.5, d) 16.5, and e) 18.5 days of gestation are shown with amniotic
13 fluid (AF), placenta (P), and RPCS (red asterisk) labeled. Scale bars in each figure
14 represent 3 mm.

	Radiologist Score <i>p</i>-values				
	E10.5	E12.5	E14.5	E16.5	E18.5
E10.5	-	2.0E-06	1.4E-09	3.0E-11	7.9E-10
E12.5	2.0E-06	-	7.6E-03	1.0E-03	1.7E-02
E14.5	1.4E-09	7.6E-03	-	0.34	0.61
E16.5	3.0E-11	1.0E-03	0.34	-	0.16
E18.5	7.9E-10	1.7E-02	0.61	0.16	-

1

2 **Table S1:** Wilcoxon rank sum test *p*-values comparing mean radiologist scores from

3 Table 1 at each time point.

4