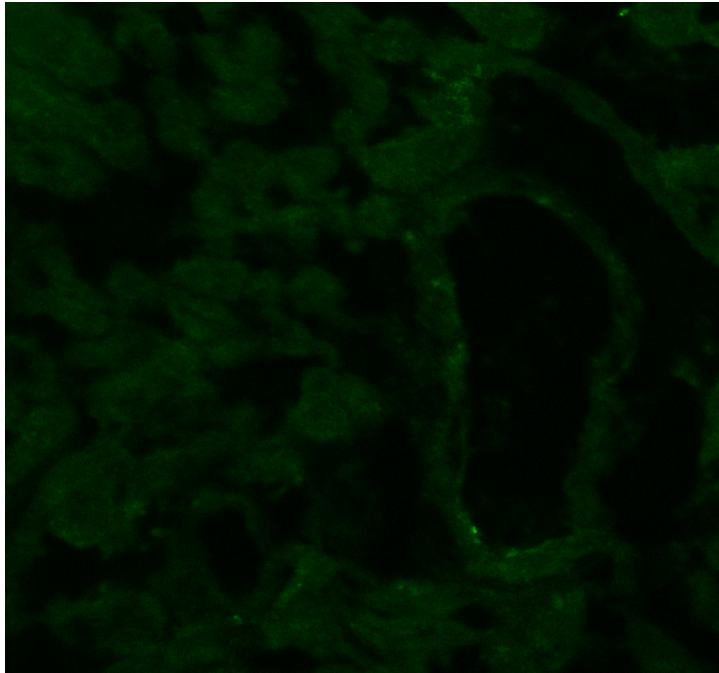
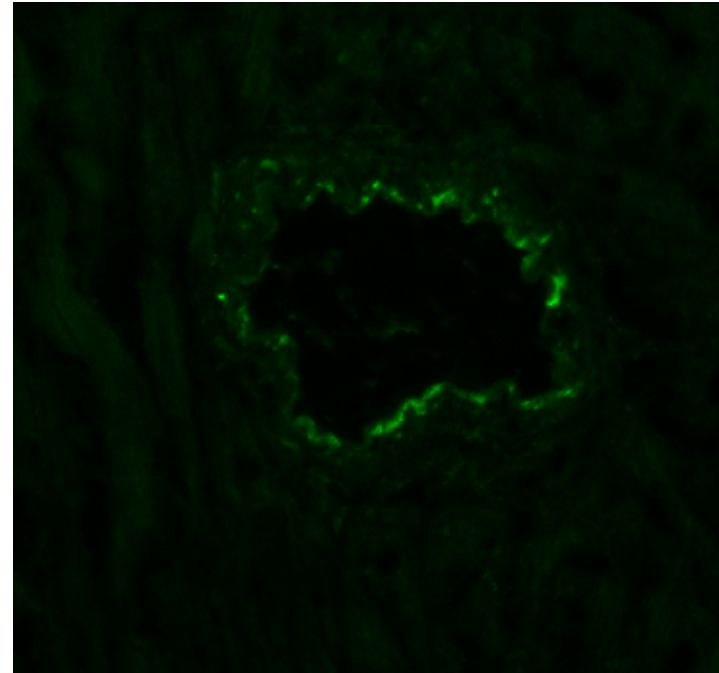


FigS1

Non-transgenic WT

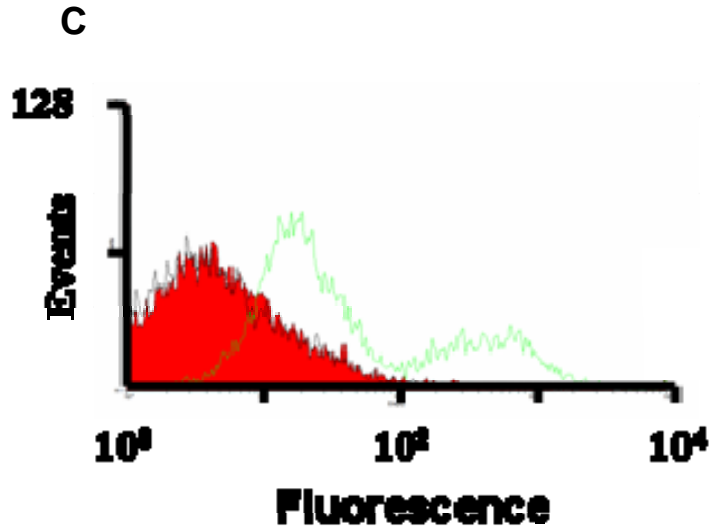
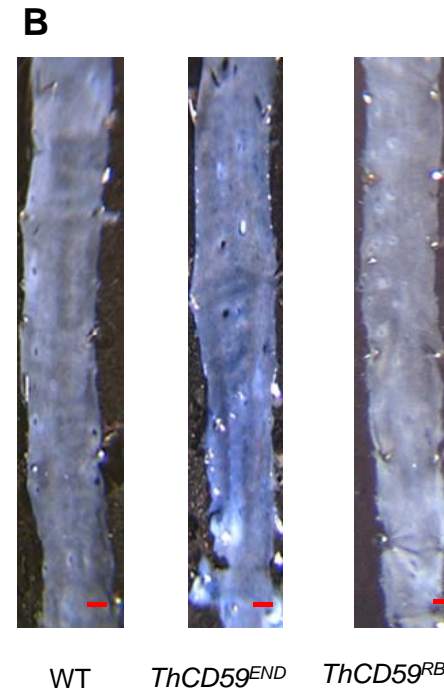
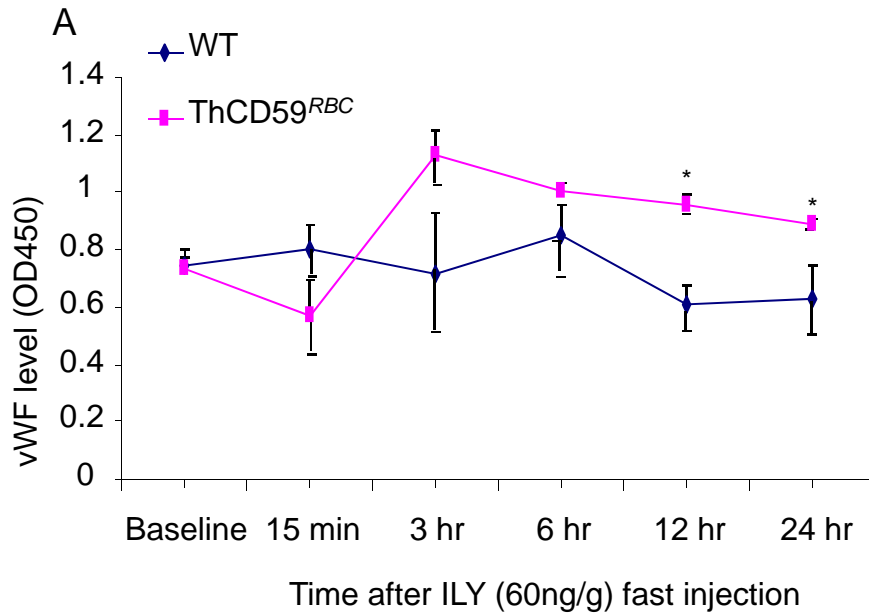


hCD59RBC



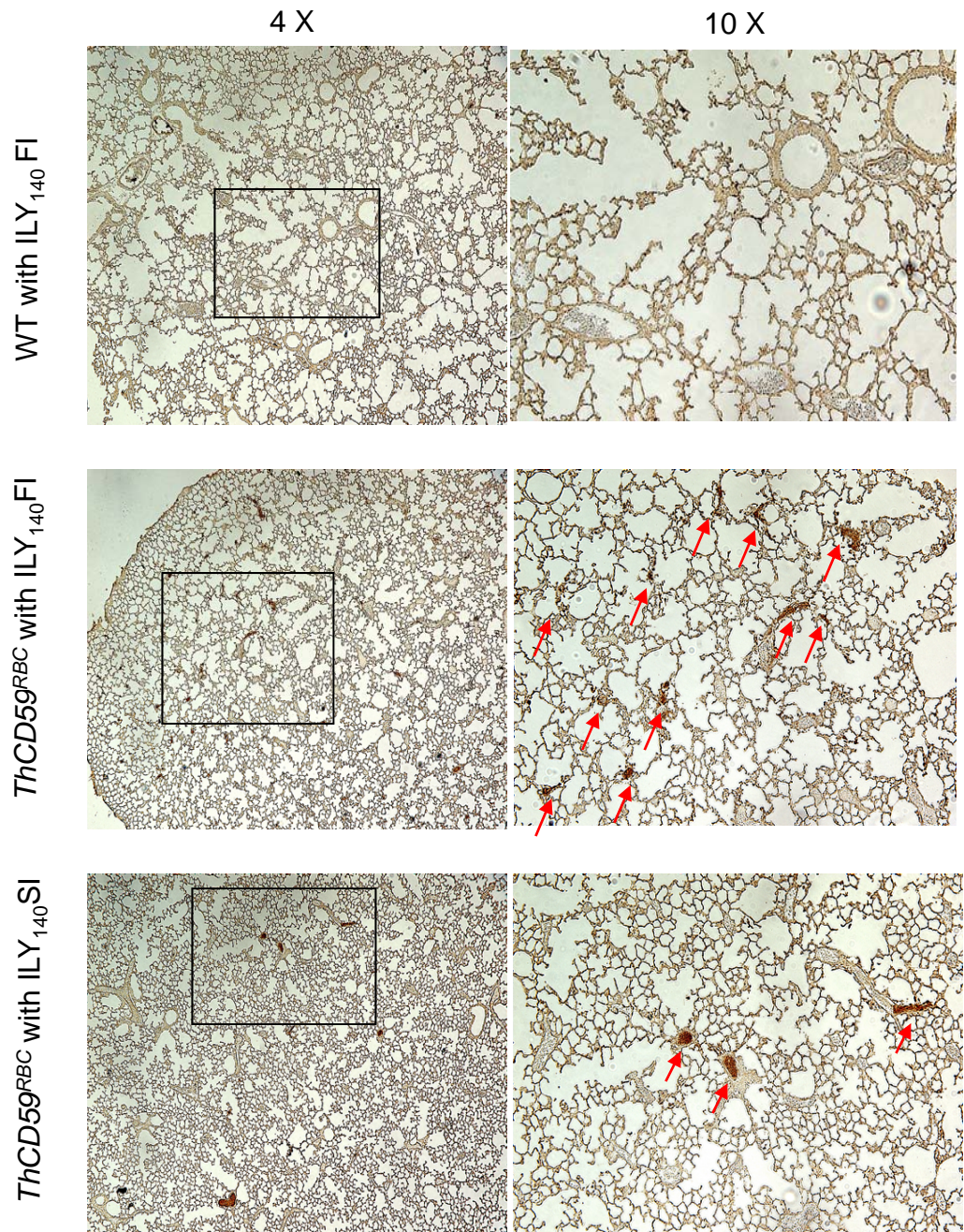
FigS1: The hCD59 protein was detected in the endothelium of middle-sized intramyocardial vessels in ThCD59RBC but not in the non-transgenic mouse hearts. Immunofluorescence was performed with anti-hCD59 antibody (Bric 229, BITS/IBGRL).

FigS2



FigS2: ILY injection did not result in direct endothelial cell damage: **(A)** vWF levels after ILY injection in *ThCD59^{RBC}* mice. Data are represented by Mean \pm SEM * $P < 0.05$ vs WT mice (n=4) 12 and 24 hrs after ILY injection. **(B)** Representative pictures from 4 independent mice in each group show the Evan's blue staining in the aorta of the mice. The Evan's blue staining of the aortas from WT and *ThCD59^{RBC}* mice treated with ILY₁₄₀SI or *ThCD59^{END}* mice treated with 4.5 ng/g ILY i.v. injection was performed at 2 hrs post-injection. Extensive Evan's blue staining was detected in the aorta of the *ThCD59^{END}* that express hCD59 in the endothelium, but not in the WT and *ThCD59^{RBC}* mice. Scale bar: 1 mm. **(C)** FACS analysis showed no hCD59 expression in the platelets of *ThCD59^{RBC}* or WT platelets but in human platelets. Red: WT platelets; Green: human platelets; Black: *ThCD59^{RBC}* platelets. The platelets were stained with anti-human CD59 Ab (Bric 229) and FITC-conjugated secondary Abs.

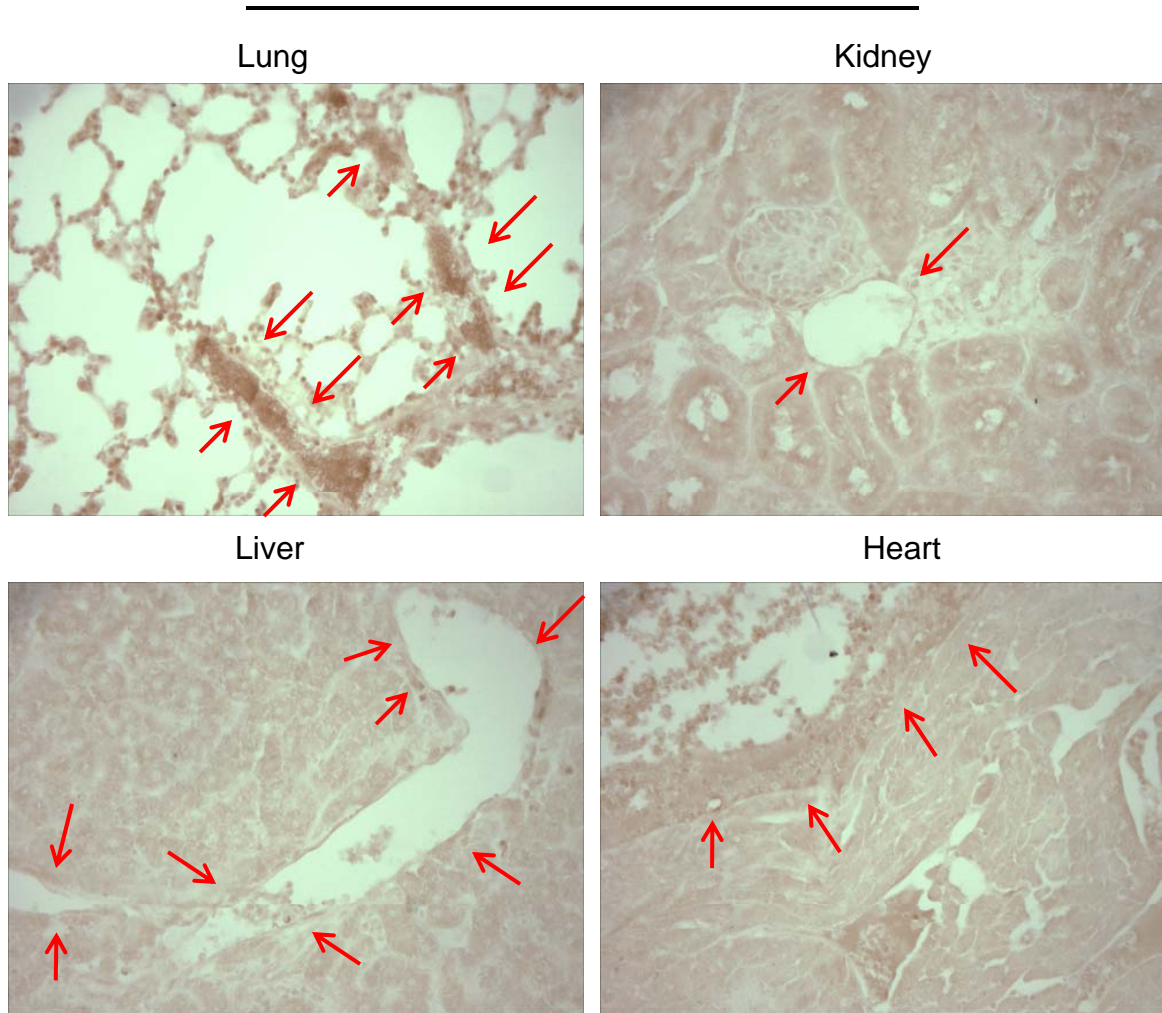
FigS3



FigS3: Representative images of P-selectin staining in lung. There was more extensive P-selectin staining in the alveolar vessels in the *ThCD59^{RBC}* with ILY₁₄₀FI treatment than in the *ThCD59^{RBC}* with ILY₁₄₀SI treatment, or the WT with ILY₁₄₀FI treatment. The 10 X magnification images show the area of 4 X magnification images highlighted in the black squares.

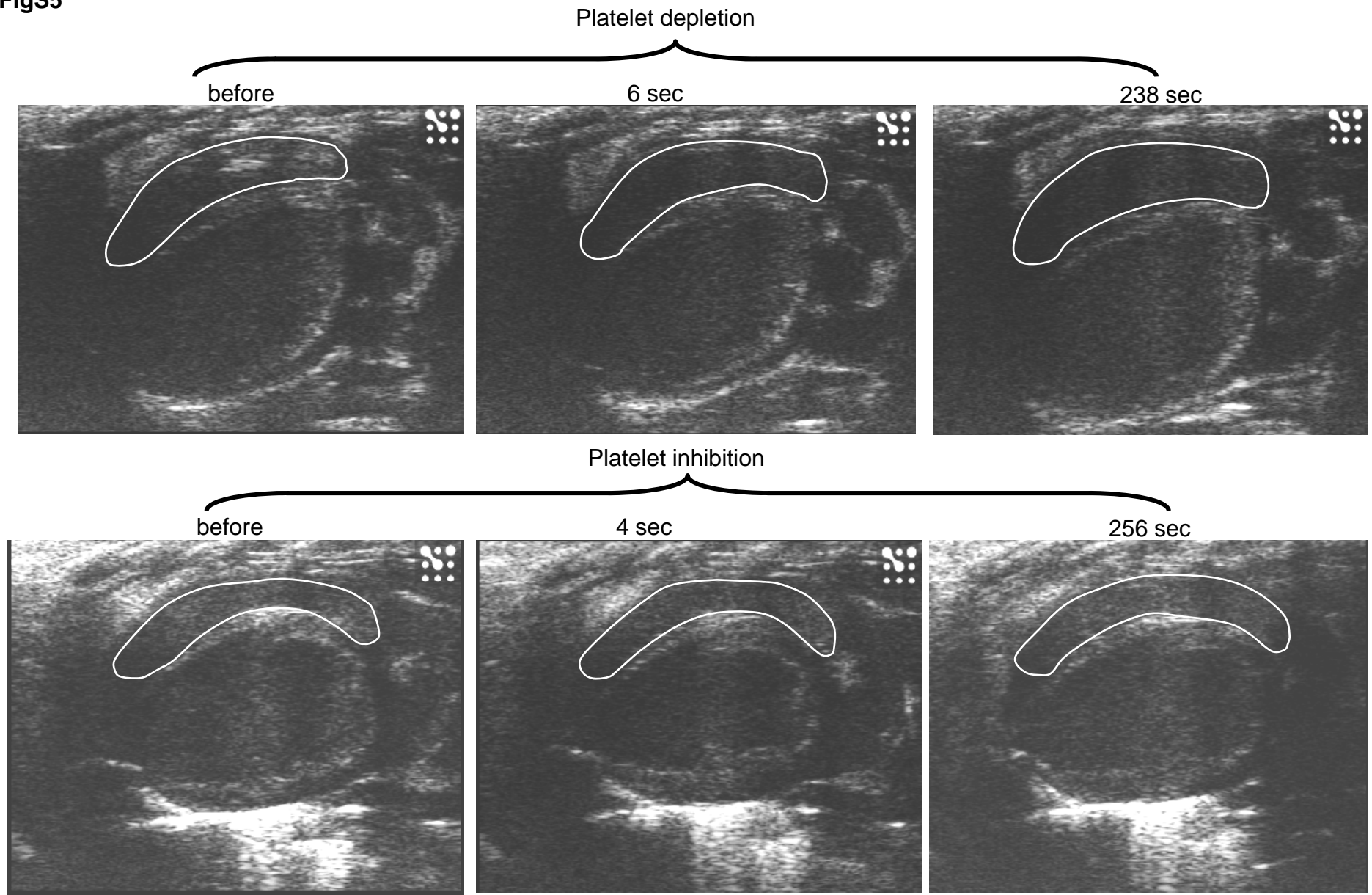
FigS4

Intergrin α IIb



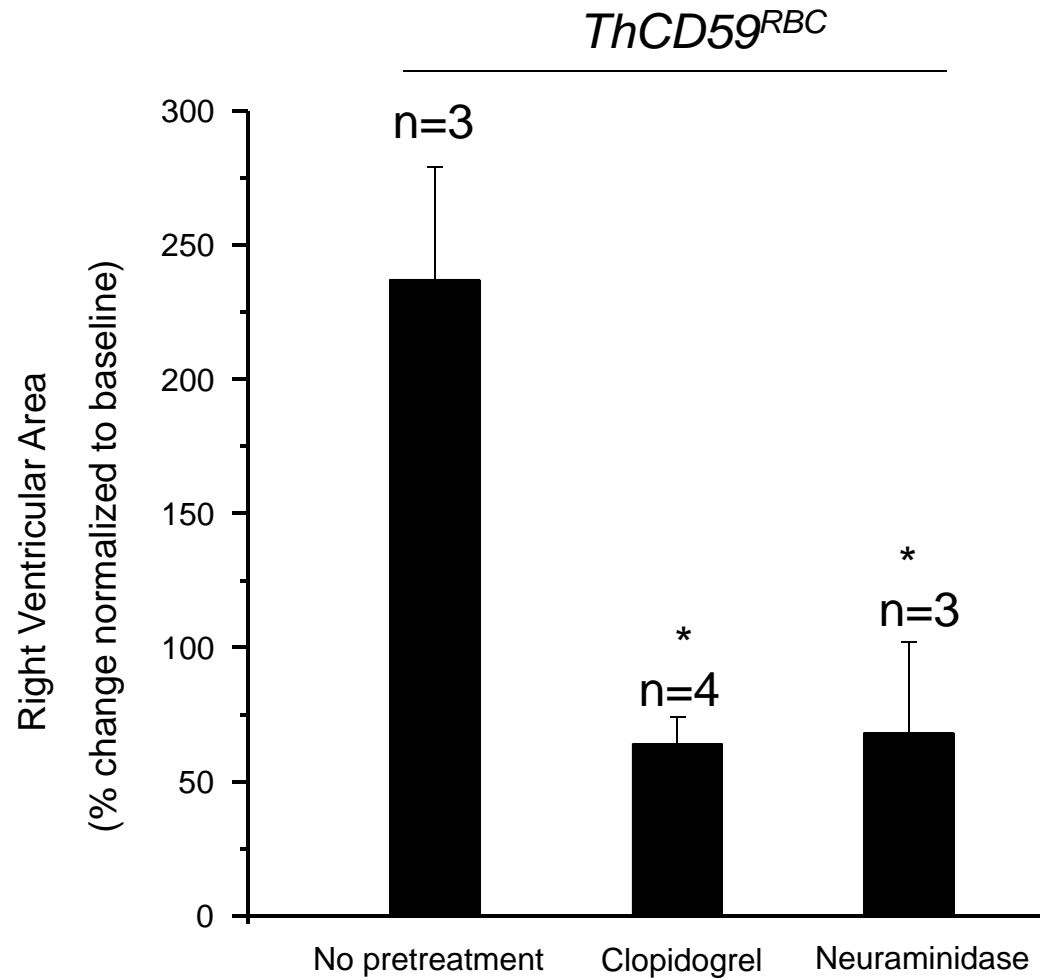
FigS4. Thrombi were specifically formed in the lung, but not in the kidney, liver and heart of *ThCD59^{RBC}* mice treated with ILY₁₄₀FI. Representative images (magnification: X 40) show Intergrin α IIb stainings in the blood vasculature of lung, kidney, liver and heart of *ThCD59^{RBC}* mice treated with ILY₁₄₀FI. There were extensive Intergrin α IIb stainings in the thrombi of the blood vessels in the lungs but not the kidney, liver and heart of the mice. Arrows point to vasculatures in the tissues.

FigS5



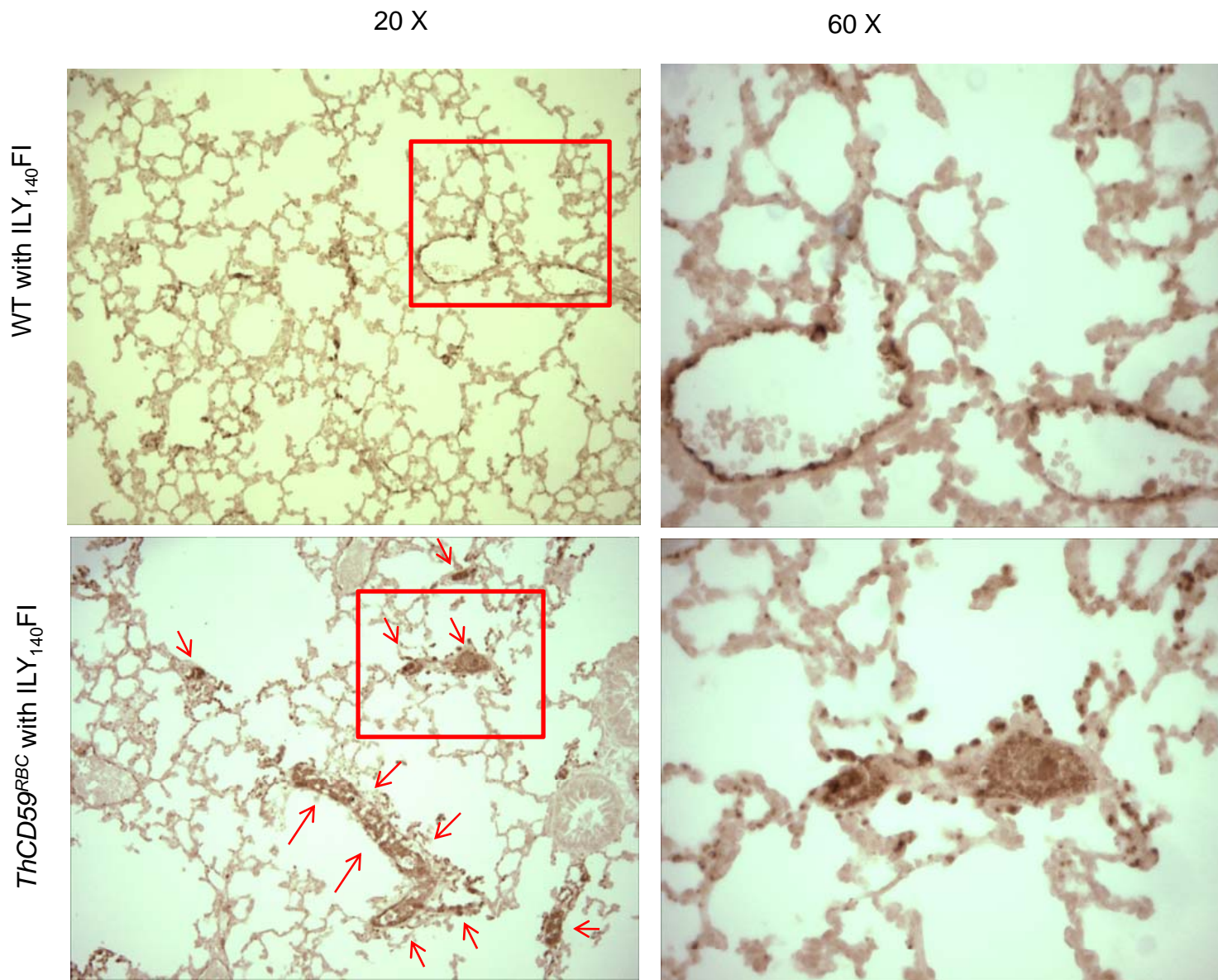
FigS5: Representative echocardiographic frames show the dynamic changes in the right ventricular volume in the *ThCD59^{RBC}* with platelet depletion (neuraminidase treatment) and inhibition (clopidogrel treatment) followed by ILY₁₄₀FI injection (the videos are shown in **Supplementary movies 4-6**).

FigS6



FigS6: Increased percentage of maximal right ventricular area (at end-diastole) vs. baseline right ventricular area in the *ThCD59^{RBC}* mice treated with clopidogrel and neuraminidase followed by ILY₁₄₀FI. * $P < 0.01$ vs. the mice without the pretreatment. The data are shown as mean \pm SEM

FigS7



FigS7. Representative images of vWF staining in lung. There were more extensive vWF stainings (arrows) in the thrombi of the blood vessels in the lungs of *ThCD59^{RBC}* mice but not WT treated with ILY₁₄₀FI.