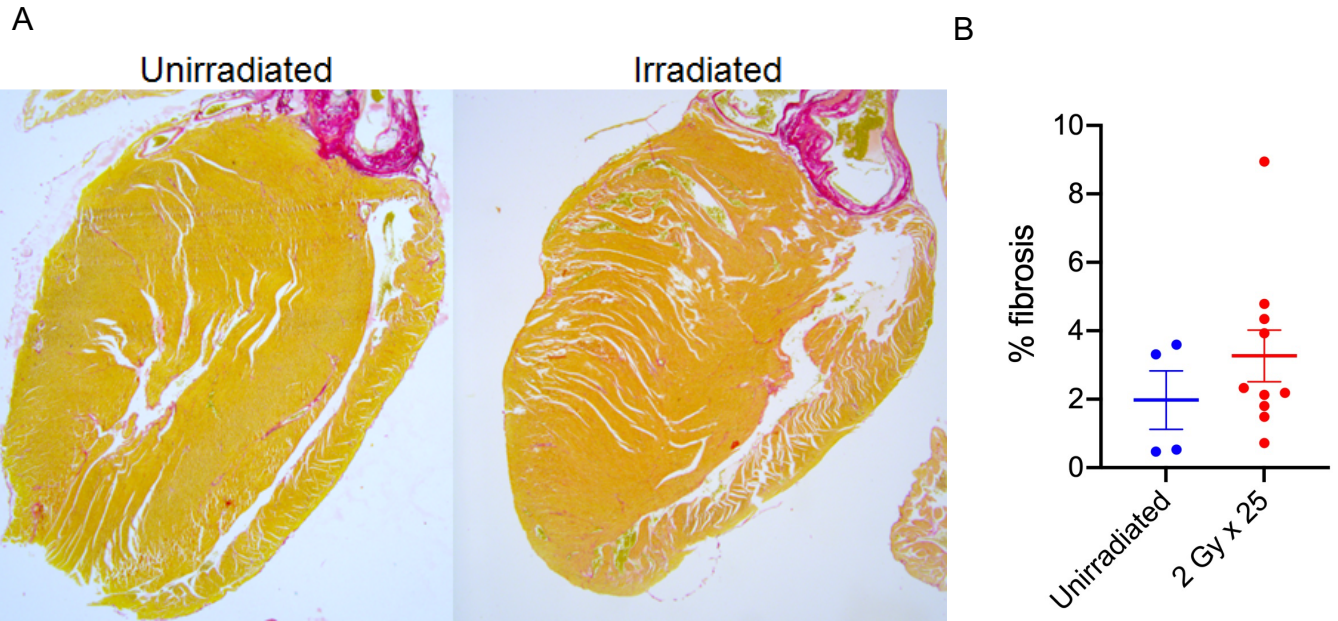
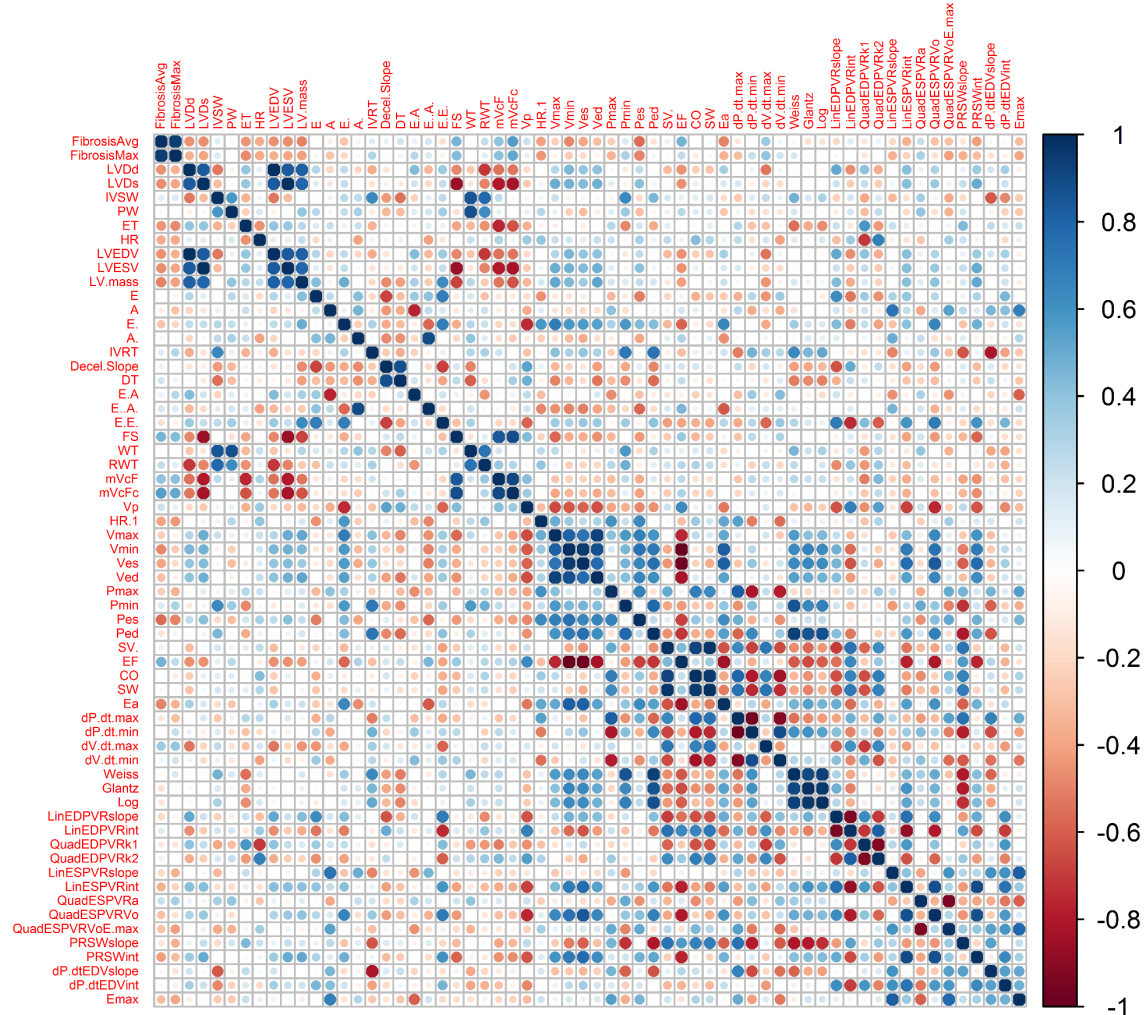


**Supplemental Figure 1.** Dose-volume metrics of the heart and lung for 2 Gy x 25 fractions of partial heart irradiation. (A) Representative dose-volume histogram of heart (teal) and lung (magenta). (B) Dot plot showing representative individual heart and lung doses (n=4). Each dot represents the mean heart or lung dose for one mouse. Data are presented as mean  $\pm$  SEM. Across four mice, the mean heart dose  $\pm$  SEM was  $38.5 \pm 1.0$  Gy, and the mean lung dose was  $10.4 \pm 1.1$  Gy.



**Supplemental Figure 2.** Assessment of cardiac fibrosis in ApoE<sup>-/-</sup> mice on a regular diet 12 months after partial heart irradiation. **(A)** Representative images of unirradiated and irradiated hearts acquired at 1.25x magnification and stained with Sirius red to visualize fibrosis. **(B)** Dot plot showing percent fibrosis in unirradiated (n=4) and irradiated (n=10) mice 12 months after treatment. Each dot represents the averaged percentage of fibrosis per mouse. Data are presented as mean ± SEM.



**Supplemental Figure 3.** Matrix of Spearman correlation coefficients between average and maximum percent fibrosis, all echocardiographic measurements, and all PV loop measurements in ApoE<sup>-/-</sup> mice on a regular diet 12 months after irradiation. The size and color of the dot represents the value of the correlation coefficient ranging from -1 (red) to 1 (blue).