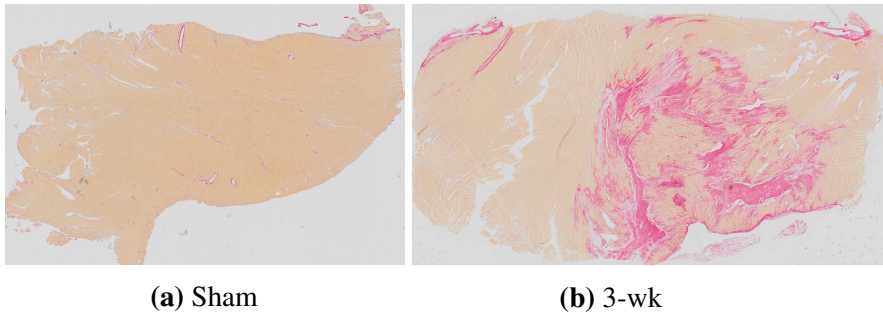
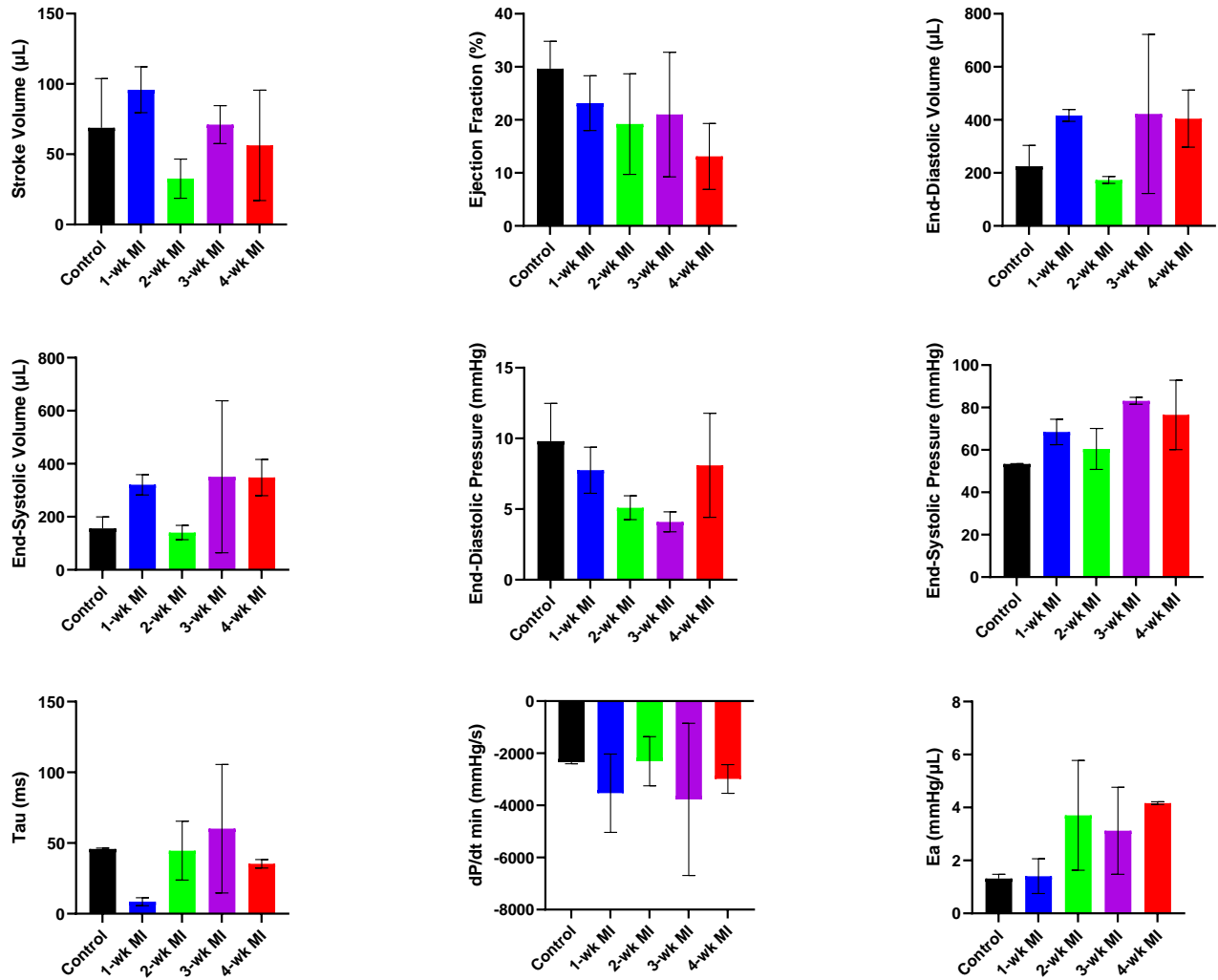


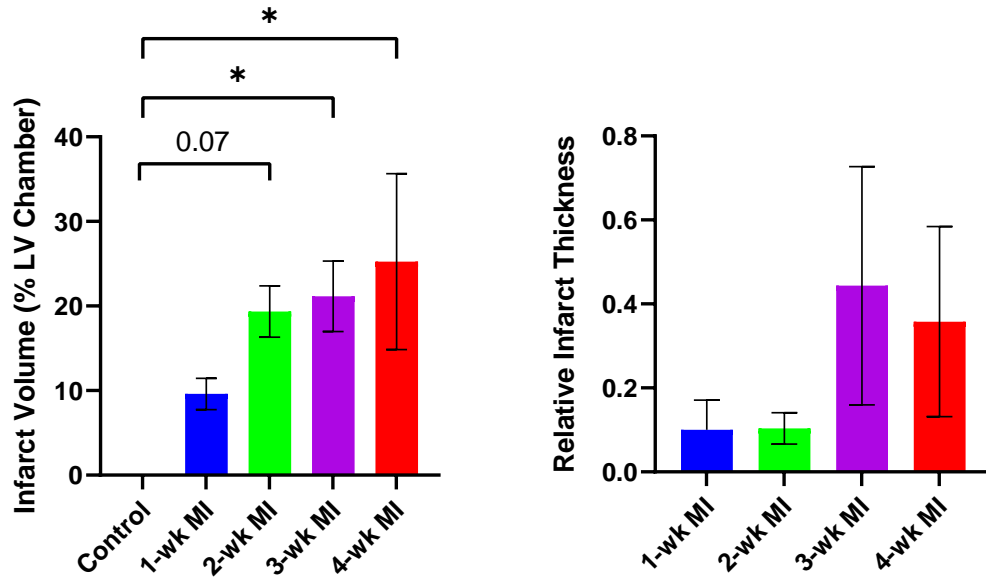
## Supplementary Material



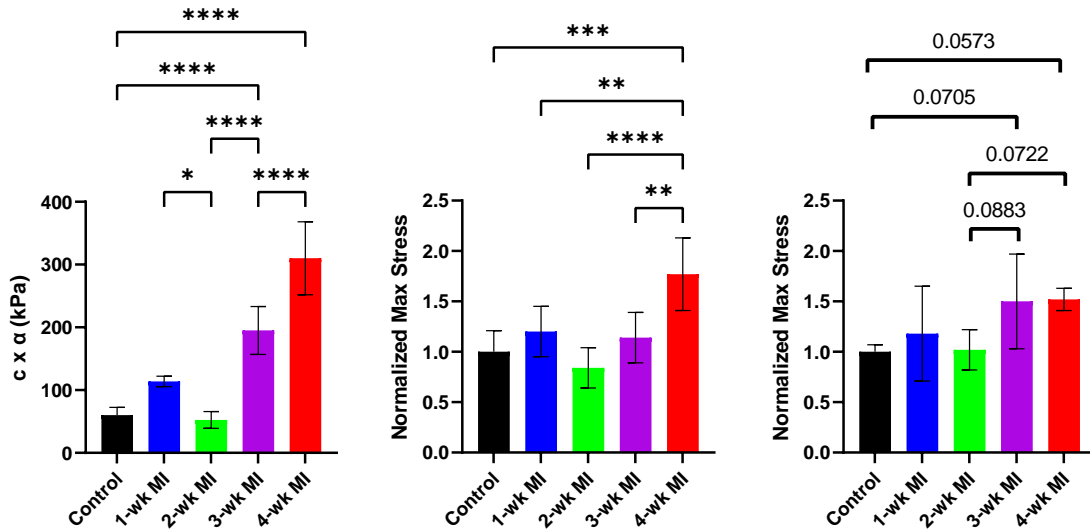
**Supplementary Figure S1.** Representative Picrosirius red-stained histological images at the control and 3-wk timepoints. Yellow and pink-red regions correspond to myofibers and collagen fibers, respectively.



**Supplementary Figure S2.** Mean  $\pm$  SD of select hemodynamic measurements. Statistical analysis was performed using ordinary one-way ANOVA with Tukey's multiple comparison test. N=2 at each timepoint.



**Supplementary Figure S3.** Mean  $\pm$  SD of select geometrical measurements. Relative infarct thickness was calculated by  $(t_r - t_i)/t_r$  where  $t_r$  and  $t_i$  are thickness of the remote and infarct thickness, respectively. The statistical significance was calculated by performing ordinary one-way ANOVA with Tukey's multiple comparison test. \* $p < 0.05$ . Values under 0.1 but over 0.05 are specified by their numerical value. N=2 at each timepoint.



**Supplementary Figure S4.** (A) Bulk stiffness parameter. Normalized maximum (B) circumferential and (C) longitudinal stresses obtained from equibiaxial stress testing at all timepoints. All stress values were normalized against the mean of the maximum stress in the control specimens. The statistical significance was calculated by performing ordinary one-way ANOVA with Tukey's multiple comparison test. \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ ; \*\*\*\* $p < 0.0001$ . Values under 0.1 but over 0.05 are specified by their numerical value. N=6 at each timepoint.