

Fig. S1. Effects of acute and chronic coronary ligation on heart morphology in rainbow trout (*Oncorhynchus mykiss*). Histological sections of acute (3 days post-surgery) and chronic (33-62 days post-surgery) sham-operated and coronary-ligated rainbow trout hearts. Examples are from five image fields (*i.e.*, two from the base, two from the side and one from the apex of the ventricle) from one ventricle section stained with picosirius red that was used to calculate percent compact myocardium and percent interstitial space in all samples analyzed (see Material and Methods – Quantitative tissue morphology). Note an increase in interstitial space with apparently separated individual cardiomyocytes in the compact myocardium of one acute coronary ligated fish (images in the second row). Also, note that the compact myocardium in one chronic ligated fish (images in the fourth row) is divided into an outer and inner layer (arrows) with a layer of collagen in-between. The abbreviations are: *cm*, compact myocardium; *sm*, spongy myocardium.

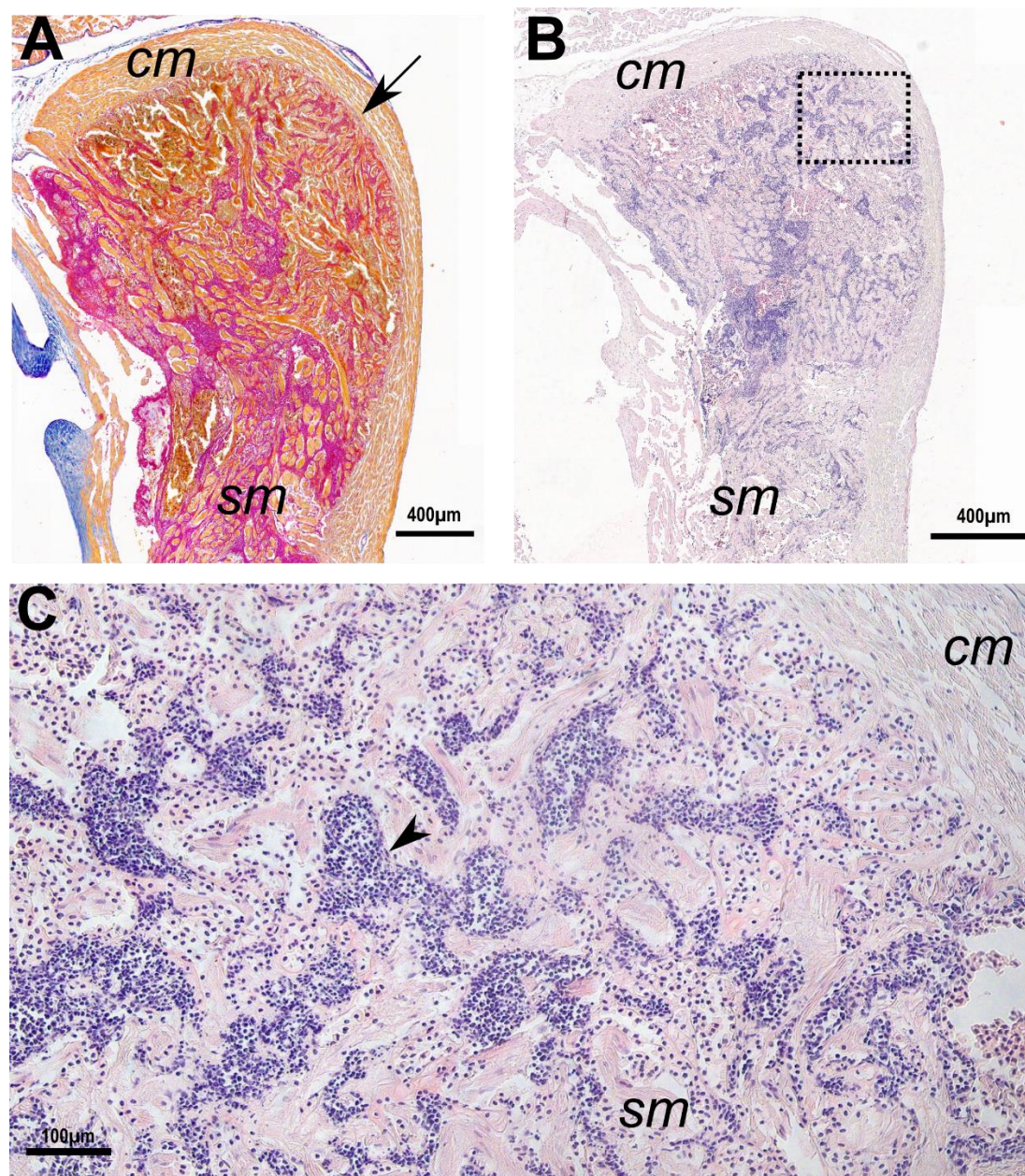


Fig. S2. Heart inflammatory response in acute coronary-ligated rainbow trout (*Oncorhynchus mykiss*). Histological sections of one coronary-ligated rainbow trout heart examined 3 days following surgery. Bright-field image stained with acid fuchsin orange G in A (AFOG) depicts cardiac muscle in yellow/brown, collagen in blue, and fibrin in red/pink. Bright-field images stained with hematoxylin and eosin showing large amounts of inflammatory cells in the spongy myocardium in B and C (arrowhead). Magnified picture in C of the respective area within the hatched square in B. Note that fibrin-based provisional matrix overlaps with large amounts of inflammatory cells (A and B). Also, note an increase in interstitial space in the compact myocardium with apparently separated individual cardiomyocytes in A, B and C. For comparisons with sham-operated fish see Figure 1 and Supplementary Material S1. Abbreviations: cm, compact myocardium; sm, spongy myocardium.

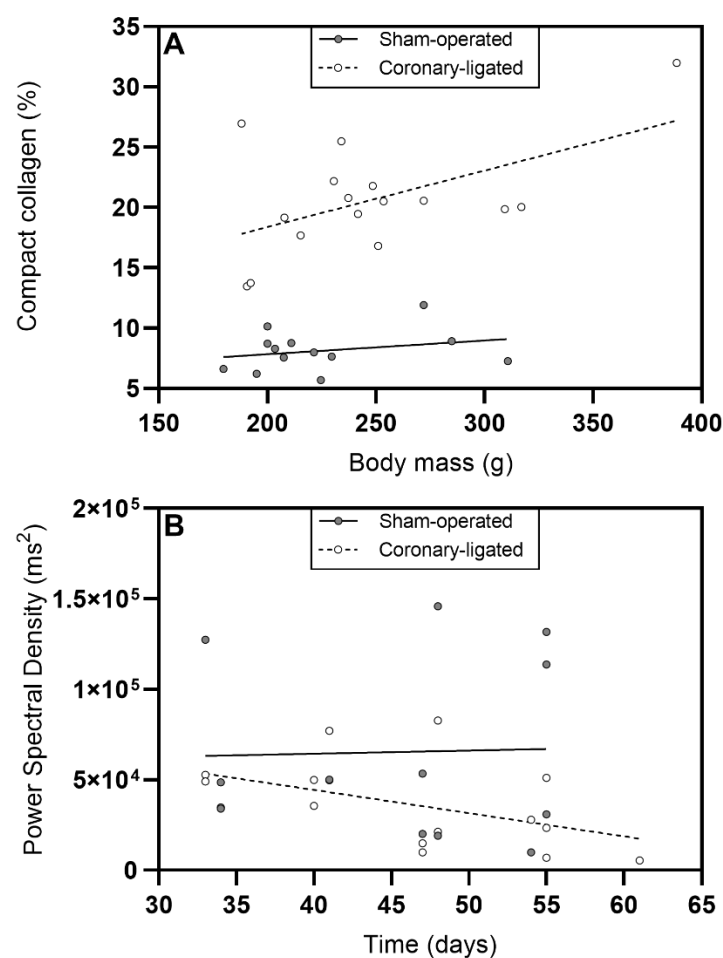


Fig. S3. Relationships in rainbow trout between the percentage of collagen content in the compact myocardium and body mass (A), and between heart rate variability and time since chronic coronary ligation surgery (B). Panel A shows linear regressions between percentage compact collagen and body mass in sham-operated trout (solid line and filled circles, $n = 13$; regression analysis; $Y = 0.01139x + 5.553$, $r^2 = 0.07$, $P = 0.37$) and coronary-ligated trout (dashed line and open circles; $n = 16$; $Y = 0.04682x + 9.011$, $r^2 = 0.28$, $P = 0.03$). Panel B shows linear regressions between heart rate variability and time since ligation surgery in sham-operated trout (solid line and filled circles, $n = 12$; regression analysis; $Y = 174.3x + 57,435$; $r^2 = 0.001$, $P = 0.92$) and coronary-ligated trout (dashed line and open circles; $n = 16$; $Y = -1,284x + 95,763$, $r^2 = 0.23$, $P = 0.06$).