

SUPPLEMENTARY FIG. S2. Quantitative assessment of trabecular volume fraction after heart injury. (A–F) Toluidine blue-stained semithin sections of the myocardium at several time points after injury. (A) The myocardium of control hearts shows compact, organized trabeculae, filled with cardiomyocytes and well-organized myofibrils. Blood cells (*arrow*) are present among individual trabecula. (B) At 1 dpi, gaps increase and are filled with blood cells (*arrows*). The size of trabeculae declines, and cardiomyocytes contain disorganized myofibrils. (C) At 14 dpi, large gaps between trabeculae are apparent, and not all trabeculae contain cardiomyocytes (*arrows* indicate blood cells). (D) At 49 dpi, gaps between trabeculae become smaller, but morphological changes inside trabeculae are still visible. (E) At 84 dpi, morphological abnormalities are only present in small patches of the myocardium. (F) At 200 dpi, regenerated hearts have regained a normal morphology. (G) Quantitative assessment of the decline of trabecular volume fraction after mechanical damage, which recovers during regeneration. Scale bar: $100 \,\mu$ m. **P* < 0.05.