Supplemental Figure Legend

Supplemental Figure 1. REV-ERB agonist does not change blood pressure, fibroblast activity, capillary density or mitochondria. (A) Mean arterial blood pressure 4-week post TAC. 27g TAC performed on 8-week old mice, Vehicle or SR9009 were given daily starting one day after surgery. Vehicle, n=3, SR9009, n=7. (B)-(C) cardiac fibroblasts in culture were pretreated with Vehicle or SR9009 for 24 hours and then treated with TGFβ1 for the indicated time. (B) Cardiac fibroblasts time response curve to TGFβ1. Peak response is at 4 hours. (C) Cardiac fibroblasts CTGF and SRF expression by qRT-PCR 4 hours after TGFβ1. (D) Capillary area 6-week post TAC. 27g TAC performed on 8-week old mice, Vehicle or SR9009 were given daily starting one day after surgery. Capillaries were labeled with anti-CD31 using immunofluorescence staining and quantified using ImagePro. (E)-(G) Mitochondrial studies 10-week post TAC. N=3. (E) Representative electron microscopy pictures. (F) qPCR of mitochondrial DNA normalized to nuclear DNA. (G) Normalized heart mitochondrial oxygen consumption ratio by Seahorse. Statistical differences were determined by 2-tailed Student's t-test. Data are presented as mean±s.e.m.

Supplemental Figure 1. В TGFb1 treated Cardiolibroblast mmHg MAP 150 Vehicle 1.6 100 SR 1.2 CTGF SRF 0.8 50 0.4 0 10h Ô 8 Time CTGF SRF 3.5 3 3 2.5 2.5 2 2 Fold 1.5 Vehide 1.5 SR9009 1 1 0.5 0.5 0 0 TGFb1 TGFb1 TGFb1 untr TGFb1 untr unte untr exp1 exp2 exp1 exp2 Vehicle SR9009 D Capillary Area/Section 10 8 6 4 2 SRING mtDNA Copy Number G Heart Isolated Mitochondria OCR 1.6 Vehicle 80 SR9009 1.2 mtDNA/nucDNA 60 OCR (pmoles/min) 40 Vehicle 0.8 20 SR9009 0 0.4

10

-20

-40

Nd2

0

Col

Nd1

Nd5

20

Time (minutes)

40