

Supplemental Methods

***In vivo* proliferation and apoptosis assays**

Hearts from D5 and D15 WT and *IL-6*^{-/-} mice were isolated, fixed as listed above and 7µm paraffin sections were cut. For Ki67 analysis, sections were deparaffinized and stained using the Dako Autostainer Plus (Dako, CA) as per manufacturer's instructions. For apoptosis analysis, sections were stained using the DeadEnd Colorimetric TUNEL System (Promega, CA) as per manufacturer's instructions. Both sets were then analyzed using the Dako ACIS III Automated Cellular Imaging System (Dako, CA). For immunofluorescent proliferative analyses D5 sections were stained for Phospho-histone H3 (Santa Cruz, for apoptosis sections were stained for cleaved-Poly (ADP-ribose) polymerase (cleaved-PARP) (Cell-Signaling, 9544S; 1:50). SC8656R; 1:50). Sections were counterstained with Tropomyosin (Sigma, T9283; 1:50) and Wheat-germ-agglutinin-alexa488 (Invitrogen, W11261; 1:200) and DAPI. Sections were then imaged using a Zeiss LSM 510 META microscope (Zeiss, NY) and analyzed using Metamorph as described above. Tropomyosin positive cells were counted as myocytes.

Supplemental Figure Legends

Figure 1: Immunohistochemical Analysis of proliferation and apoptosis in WT and *IL-6*^{-/-} neonatal day 5 and 15 mice: A, Ki67 staining in neonatal D5 and D15 WT and *IL-6*^{-/-} hearts. B, Quantification of Ki67 positive cells in hearts from WT and *IL-6*^{-/-} mice. C, TUNEL staining in D5 and D15 hearts from WT and *IL-6*^{-/-} mice. D, Quantification of TUNEL positive cells in hearts from WT and *IL-6*^{-/-} mice. N=4 *p<0.05, #p<0.01.

Figure 2: Analysis of proliferation in WT and *IL-6*^{-/-} cardiac cells at neonatal day 5: A, WT B, *IL-6*^{-/-} representative immunostained Day 5 sections. Sections were stained for phospho-histone-H3, Tropomyosin, WGA and DAPI.

Figure 3: Analyses of apoptosis in WT and *IL-6*^{-/-} cardiac cells at neonatal day 5: A, WT B, *IL-6*^{-/-} representative immunostained Day 5 sections. Sections were stained for cleaved-PARP, Tropomyosin, WGA, and DAPI.