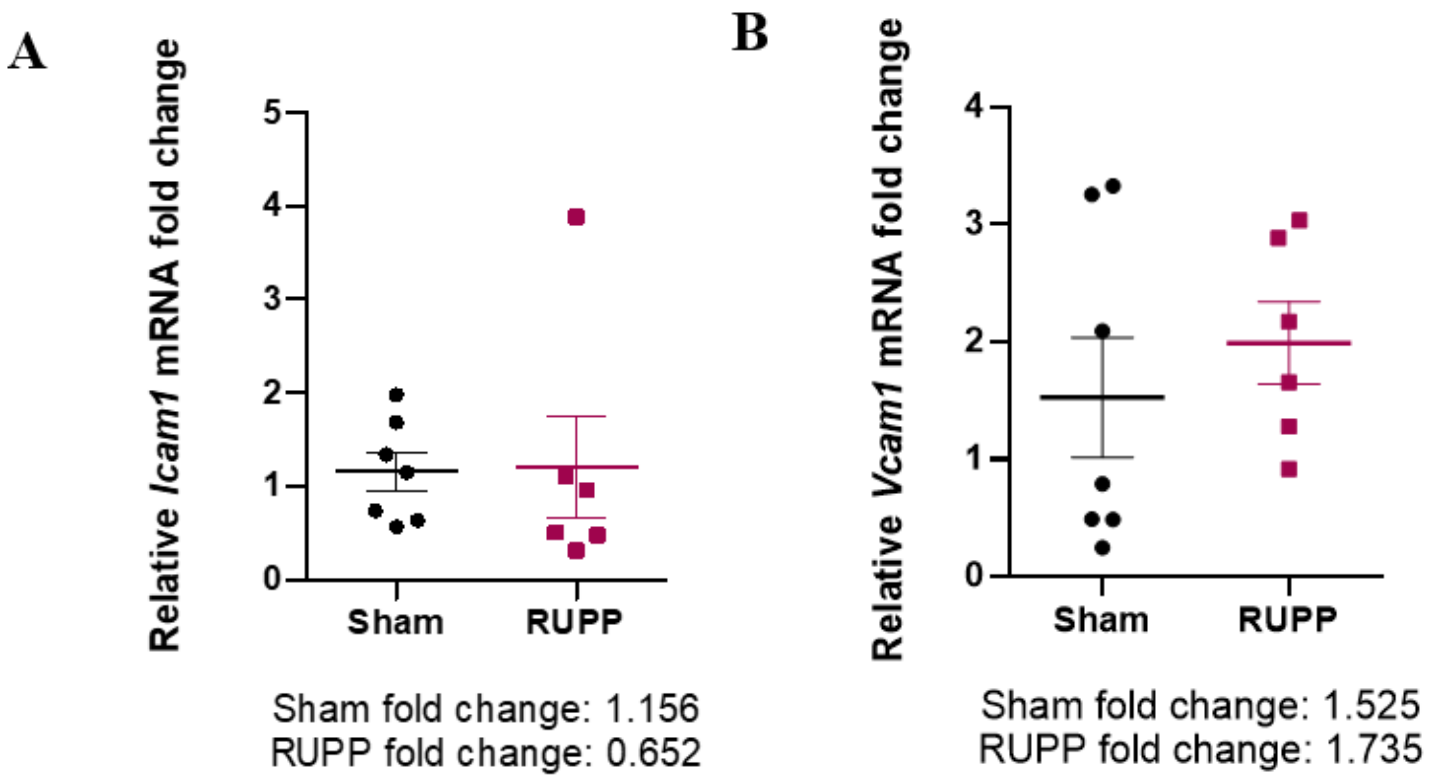
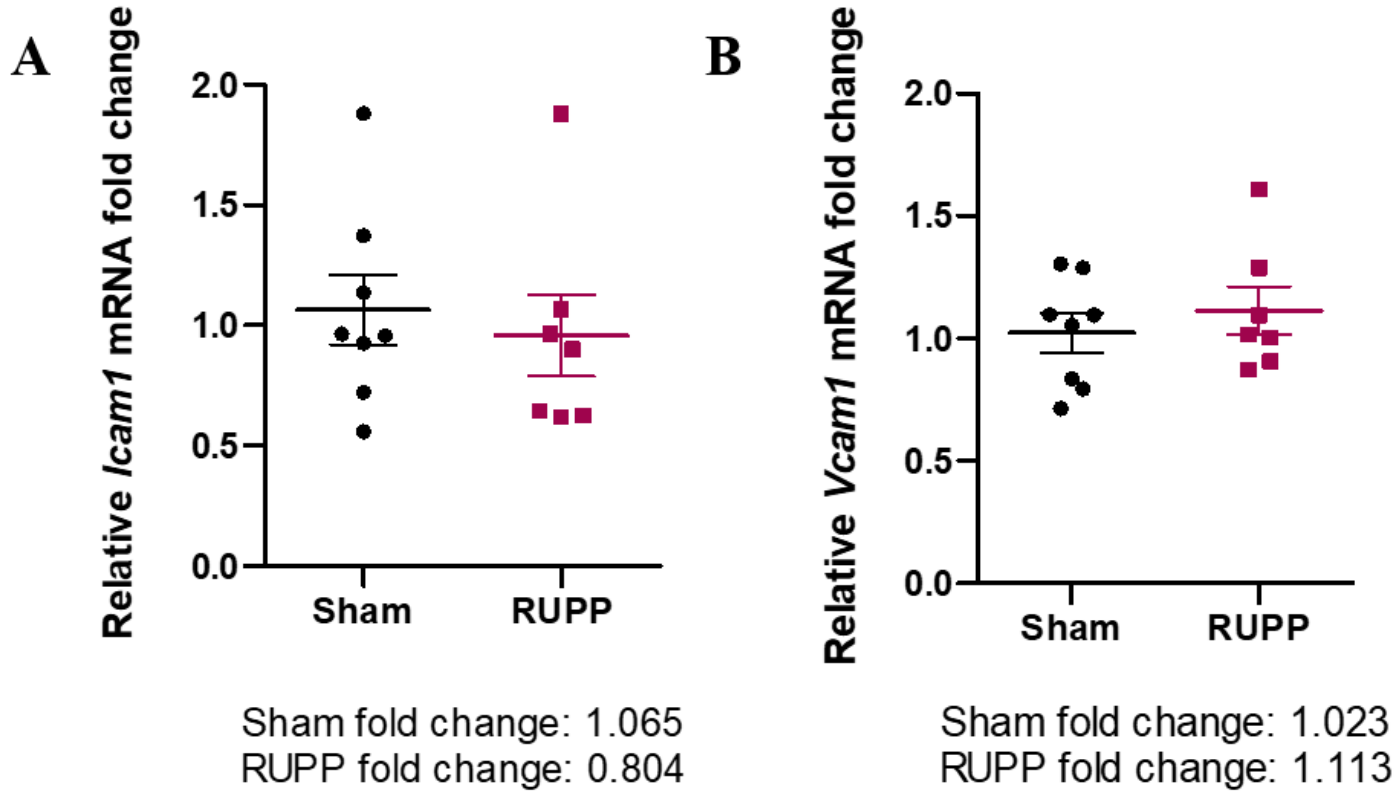
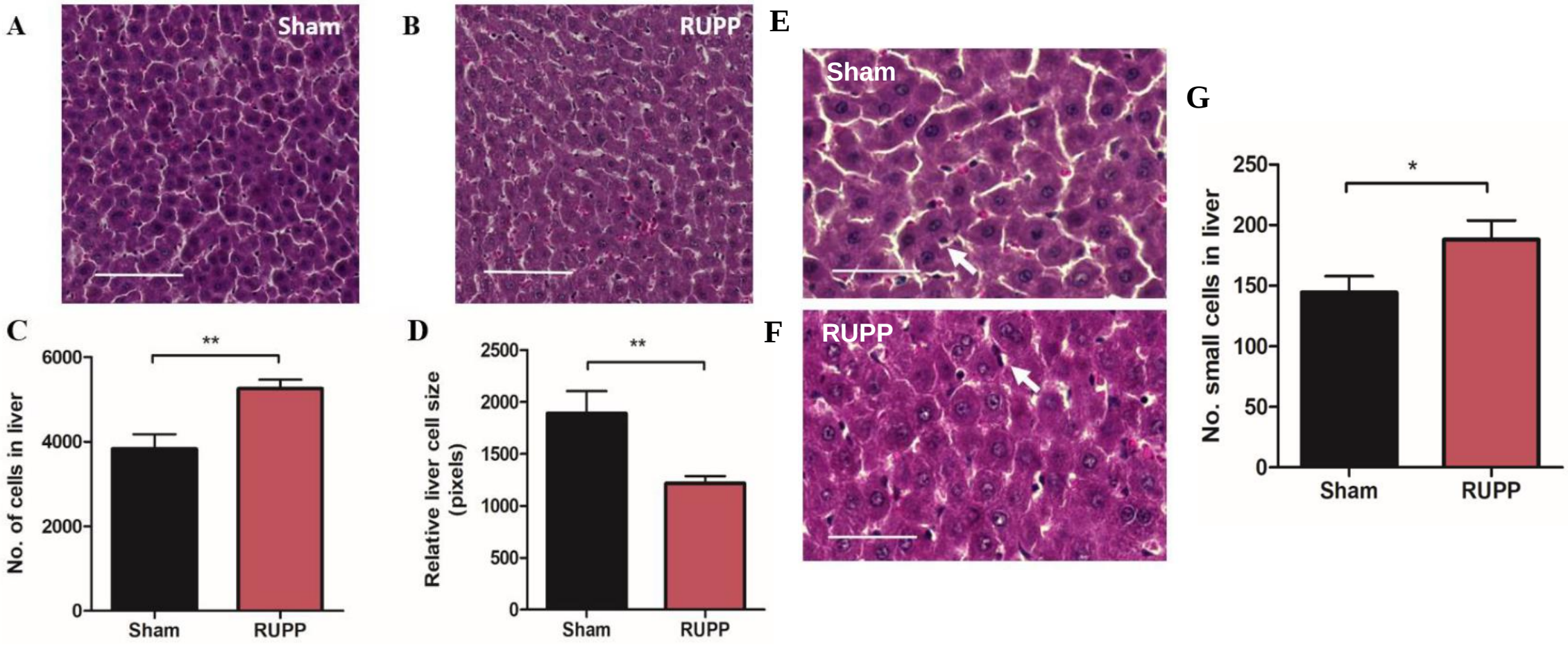


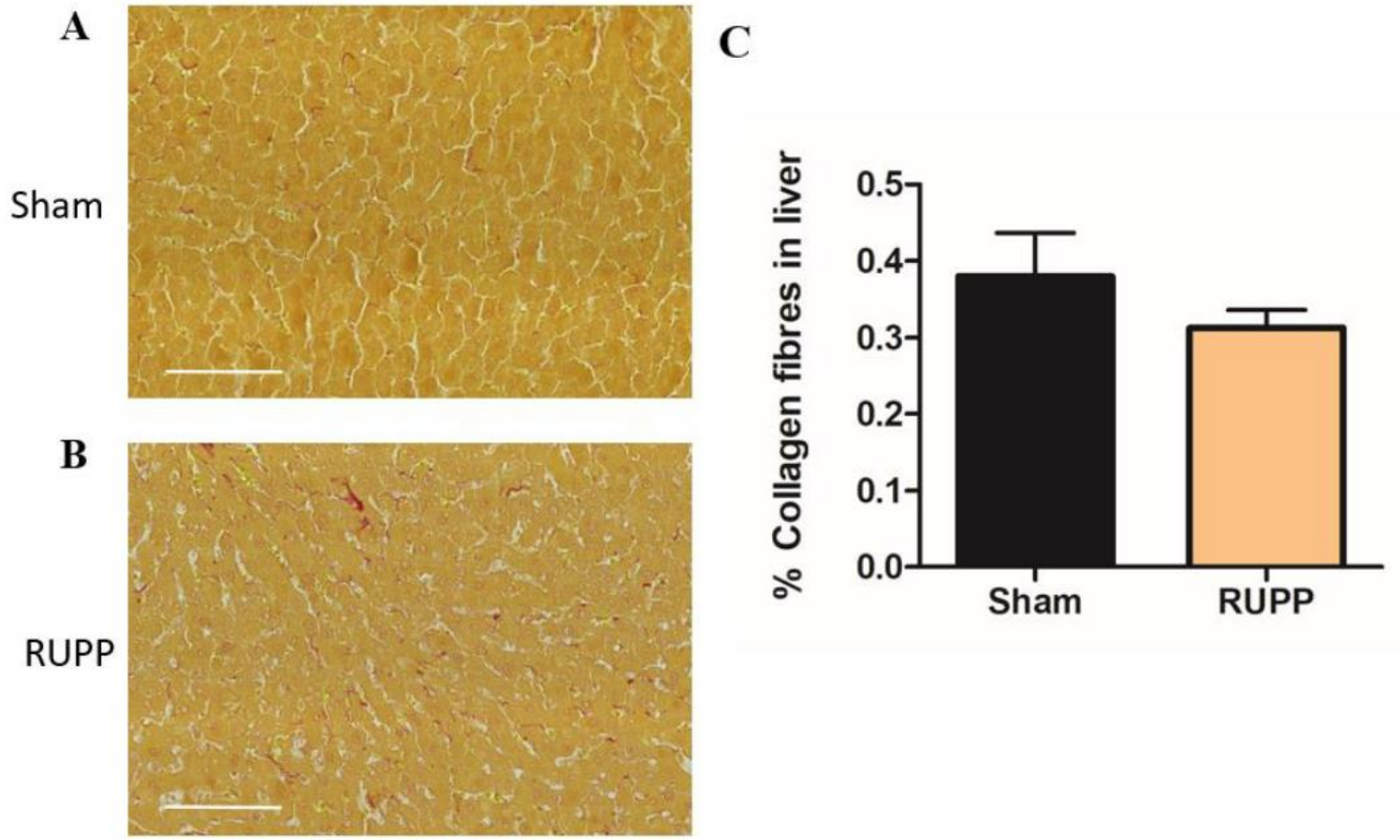
Supplementary Figure 1. Relative mRNA expression levels of endothelial dysfunction markers *Icam1* and *Vcam1* in RUPP hearts. Total RNA was collected from 30-50mg sections of cryopreserved rat hearts by a TRIsure reagent protocol. The relative levels of (**A**) *Icam1 and* (**B**) *Vcam1* mRNA were quantified by real-time polymerase chain reaction (RT-PCR). Data presented as mean fold change ± SEM; n=7; unpaired t-test.



Supplementary Figure 2. Relative mRNA expression levels of endothelial dysfunction markers *Icam1* and *Vcam1* in RUPP placentae. Total RNA was collected from 30-50mg sections of cryopreserved rat hearts by a TRIsure reagent protocol. The relative levels of (**A**) *Icam1 and* (**B**) *Vcam1* mRNA were quantified by real-time polymerase chain reaction (RT-PCR). Data presented as mean fold change ± SEM; n=7; unpaired t-test.



Supplementary Figure 3. Cell count and size of RUPP livers determined using H&E staining. Formalin-fixed, paraffin-embedded rat liver tissue was sectioned at 10µm thickness and stained with H&E to visualise tissue morphology. Images of entire tissue sections were taken at 4x, 10x and 20x objective using an Axioscan microscope to produce virtual slides of (**A**) Sham and (**B**) RUPP livers. Scalebar =100µm. (**C**) Number of cells and (**D**) cell size of in liver tissue were measured and compared. H&E rat livers were further analysed by ImageJ to detect and count cells with area 5-15µm2 (indicated by arrows) in (**E**) Sham and (**F**) RUPP livers. Scale bar = 50µm. (**G**) Number of small cells in livers plotted as mean ± SEM. Data plotted as mean ± SEM; n=7; unpaired student's t-test; *<0.05, **<0.01.



Supplementary Figure 4. Degree of fibrosis of RUPP livers as determined by picrosirius red staining of collagen fibres. FFPE rat livers were sectioned at 10μm thickness and stained by picrosirius red staining to reveal collagen I and III fibres (red) in (**A**) sham and (**B**) RUPP hearts. Scalebar = 100μm. Images taken at 5x using an Axioscan microscope were analysed for percentage area stained red to quantify collagen deposition as an indicator of fibrosis (**C**). Data points are mean ± SEM; n=7, unpaired student's t-test.