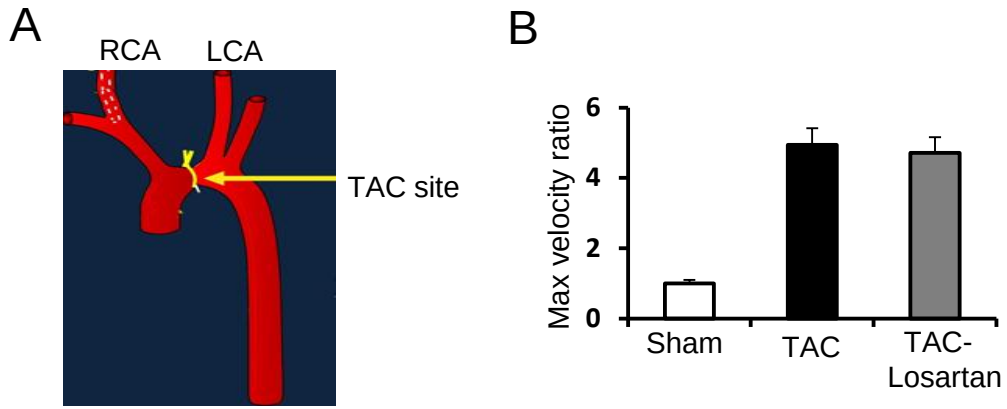
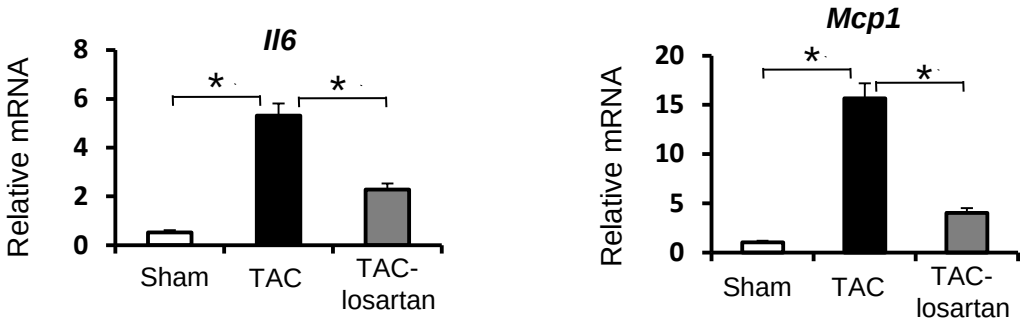
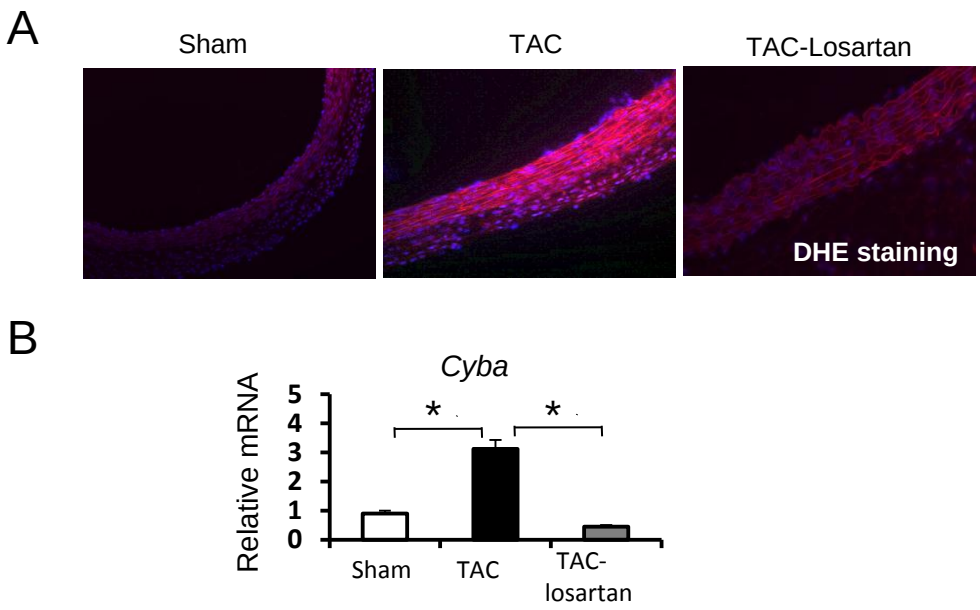


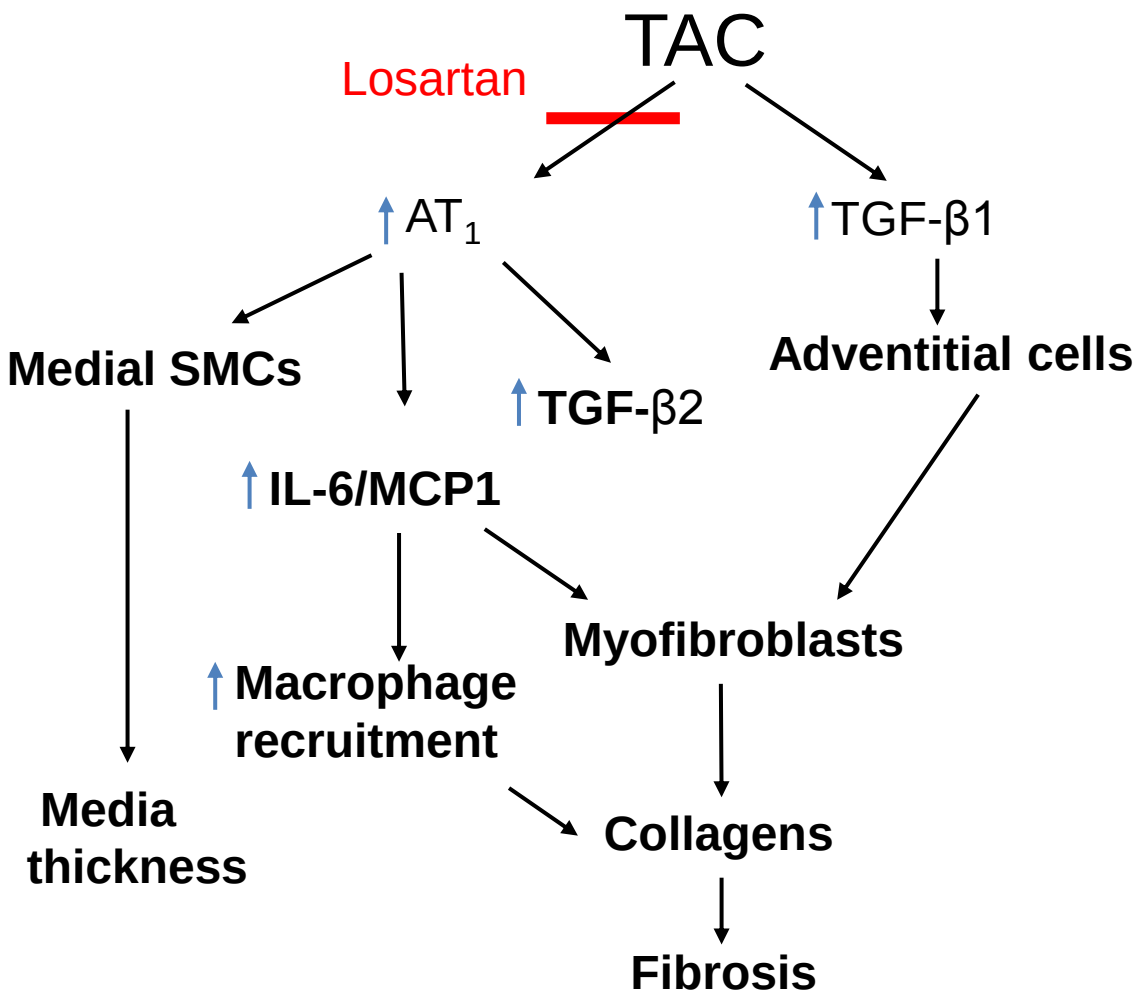
Supplemental Figure I. Confirmation of Transverse Aorta banding using echocardiogram Measurement. A. Schematic graph of mouse transverse aortic constriction (TAC) . **B.** Representative echocardiograms showing the maximum systolic velocities in the ascending aorta of sham operated and 2 weeks of TAC mice with or without losartan treatment. These recordings demonstrate a successful banding.



Supplemental Figure II. Q-PCR analysis of *IL-6* and *Mcp-1* expression in ascending aortic tissues from sham-operated (white bars), TAC (black bars) and TAC mice treated with losartan for 2 weeks (grey bar). Gene expression levels were normalized to *Dimt 1*(*18S rRNA)*. n = 5 per group, *, *P*<0.05.



Supplemental Figure III. TAC without and with losartan treatment alters angiotensin II type I receptor (AT_1) signaling and reactive oxygen species formation. A. *In situ* DHE staining. Transverse cryosections (7 µm) of ascending aorta were prepared from sham, 2 weeks of TAC and 2 weeks of losartan treated TAC mice and incubated in DHE (oxidation is shown in red). Nuclei were stained with DAPI (blue). Original magnification: 400X. **B.** *Cyba* expression levels by Q-PCR analysis in ascending aortic tissues from sham-operated (white bar), 2 weeks of TAC (black bar) and TAC with losartan treatment for 2 weeks (gray bar) mice. Gene expression levels were normalized to *Gapdh* (n = 5 per group). *, $P<0.05$.



Supplemental Figure IV. Summary of the role of Losartan in the transverse aortic constriction (TAC) induced ascending aortic remodeling.