

SUPPLEMENTARY TABLES

Supplementary Table 1. Variations of aortic parameters from young to aged in mice and humans.

	Mouse	Human
Systolic blood pressure (mmHg)	= or ↑ [8–11]	↑ [12, 13]
Aortic stiffness	↑ [9, 10, 14]	↑ [12, 13, 15–18]
Aortic structure		
Lumen diameter	↑ [9, 10, 19, 21]	↑ [12, 15, 16, 18]
Wall thickness	↑ [9, 10, 20, 21]	↑ [14–17]
Number of elastic lamellae	= [9, 10]	= [17]
Adventitia thickness	= [22]	= [23]
Elastic fiber-related processes in the aortic wall		
Elastogenesis	↓ [24]	↓ [25]
Elastolysis	↑ [26]	= or ↑ [25, 27, 28]
Endothelial cell function		
Basal NO production	↓ [21, 29, 30]	↓ (Dilation of forearm arteries) [31, 32]
Acetylcholine-triggered NO production	↓ [21, 30, 33, 34]	↓ (Dilation of forearm arteries) [15, 35–37]
Permeability	↑ [38, 39]	↑ (Corneal endothelial cells) [40]
Vascular smooth muscle cell function		
Elastin production	↓ [24]	↓ [25, 41]
Contractility	↓, = or ↑ [9, 10, 20, 21, 34]	↓, = or ↑ [42, 43]
Susceptibility to atherogenesis	↑ or = [44–48]	↑ [13, 49, 50]
Left ventricular hypertrophy (LVH)	↑ [9]	↑ [13]

The complete list of references (here in brackets) can be found in the supplementary section.

Supplementary Table 2. Sequences used for qPCR.

Gene name	Forward sequence (5' → 3')	Reverse sequence (5' → 3')
RPS26	TAGAAGCCGCTGCTGTCAGG	GGCACAGCTCACGCAATAATG
36B4	AAAGCCTGGAAGAAGGAGGTC	AGATTCCGGATATGCTGTTGG
MMP-1	CACTCCCTGGGCTCACTCA	GTTGCACCTGTTGGCTGGAT
MMP-2	ATCGAGACCATGCGGAAGC	GCCCGAGCAAAAGCATCAT
MMP-8	AACGGGAAGACATAC	GGGTCCATGGATCTT
MMP-9	CACGGAGACGGGTATCCCTT	GGGCACCATTTGAGTTTCCAT
MMP13	CAGTCTCCGAGGAGAACTATGAT	GGACTTTGTCAAAAAGAGCTCAG
Myosin light-chain kinase (<i>MLCK</i>)	TGGGGGACGTGAAACTGTTTG	GGGGCAGAATGAAAGCTGG
Neutrophil elastase (<i>NE</i>)	TGGAGGTCATTTCTGTGGTG	CTGCACTGACCGGAAAATTTAG
Cathepsin-S	GCGTCACTGAGGTGAAATACC	CCCCACAGCACTGAAAG
Cystatin C	ATGACCAGCCCCATCTGA	CCAGGGCACGCTGTAGAT
Tissue inhibitors of metalloproteinase (<i>Timp1</i>)	TCCCCAGAAATCAACGAGACC	GTACCGGATATCTGCGGCATT
Serine peptidase inhibitor (<i>SERPIN</i>)	TAGGGAGCAAGGGTGACACTC	ACTGTCTGGTCTGTTGAGGGT
Elastin (<i>ELN</i>)	GCTGCTGCTAAGGCTGCTAA	AGCACCTGGGAGCCTAACTC
Fibrillin 1 (<i>FBN1</i>)	GGACGGAAAGAAGTGTGAAGAT	ACACATTCGGTTTAGGCACA
Fibulin 5 (<i>FBLN5</i>)	ATCTGCTGATTGGTGAAAACC	ATGGTGAATGGCTGGTCTCT
Lysyl oxidase like 1 (<i>LOXL1</i>)	GAATACTGAGCCAGACTGGC	GGGTCTCATTGAAATTAGTATCC
Lysyl oxidase like 2 (<i>LOXL2</i>)	ATGACCTGCTGAGCCTCAAC	CAGTGTCTCCAGGCAGAAG
Lysyl oxidase like 3 (<i>LOXL3</i>)	ATGGGTGCCATCCACTTGAG	TGTTCTTGGACGGGCATCTC
Lysyl oxidase like 4 (<i>LOXL4</i>)	GGTTGTGAACCCACAAACG	CTGCATTGGCTCGGTAGGAA

Lysyl oxidase (LOX)	CTATTCGATCCCACGCTGCT	CCTCACAATGGGGATGTGCT
Latent TGF beta binding protein (Ltp-4)	CGTCAACGAGTGTGATGAGG	GAGCAAATCCTGGACGACAG
Smooth muscle actin (α -SMA)	ACTGGTATTGTGCTGGACTCTG	TAGTCACGAAGGAATAGCCACG
Smooth muscle (SM22 α)	CCCAGACACCGAAGCTACTC	GACTGCACTTCTCGGCTCAT
h-caldesmon	TACACCAATGCAATCGAGGGAA	TACATCTCCTGGCCTCAAGTCA
