



**Supplemental Figure S4:** Gene expression analysis of targets related to bio-prosthetic valve degeneration. Analysis of gene expression was performed in aortic grafts 4 and 12 weeks after implantation with  $n = 6$  animals for each analysis group. Treatment- and time-dependent expression

profiles were detectable for genes related to cell differentiation (ACTA2) and tissue degeneration (OPG) as well as related to collagen remodeling (MMP2). Markers for inflammation (MCP-1, NFκB) were in contrast not affected by pioglitazone at both time points of explantation. ACTA2, actin alpha 2; OPG, osteoprotegerin; MMP2, matrix metalloproteinase 2; MMP9, matrix metalloproteinase 9; MCP-1, monocyte chemoattractant protein 1; NFκB, nuclear factor kappa-light-chain-enhancer of activated B cells;\*,  $p < 0.05$ . Data was analyzed using Kruskal-Wallis with Dunn's multiple comparisons test.