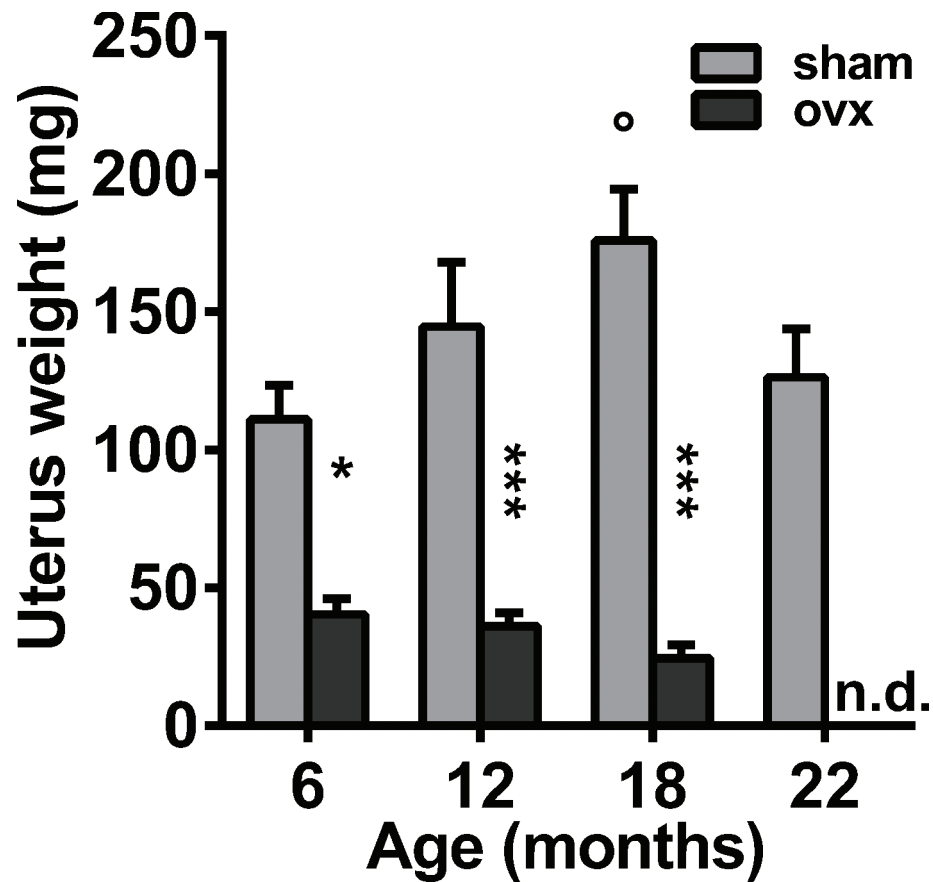
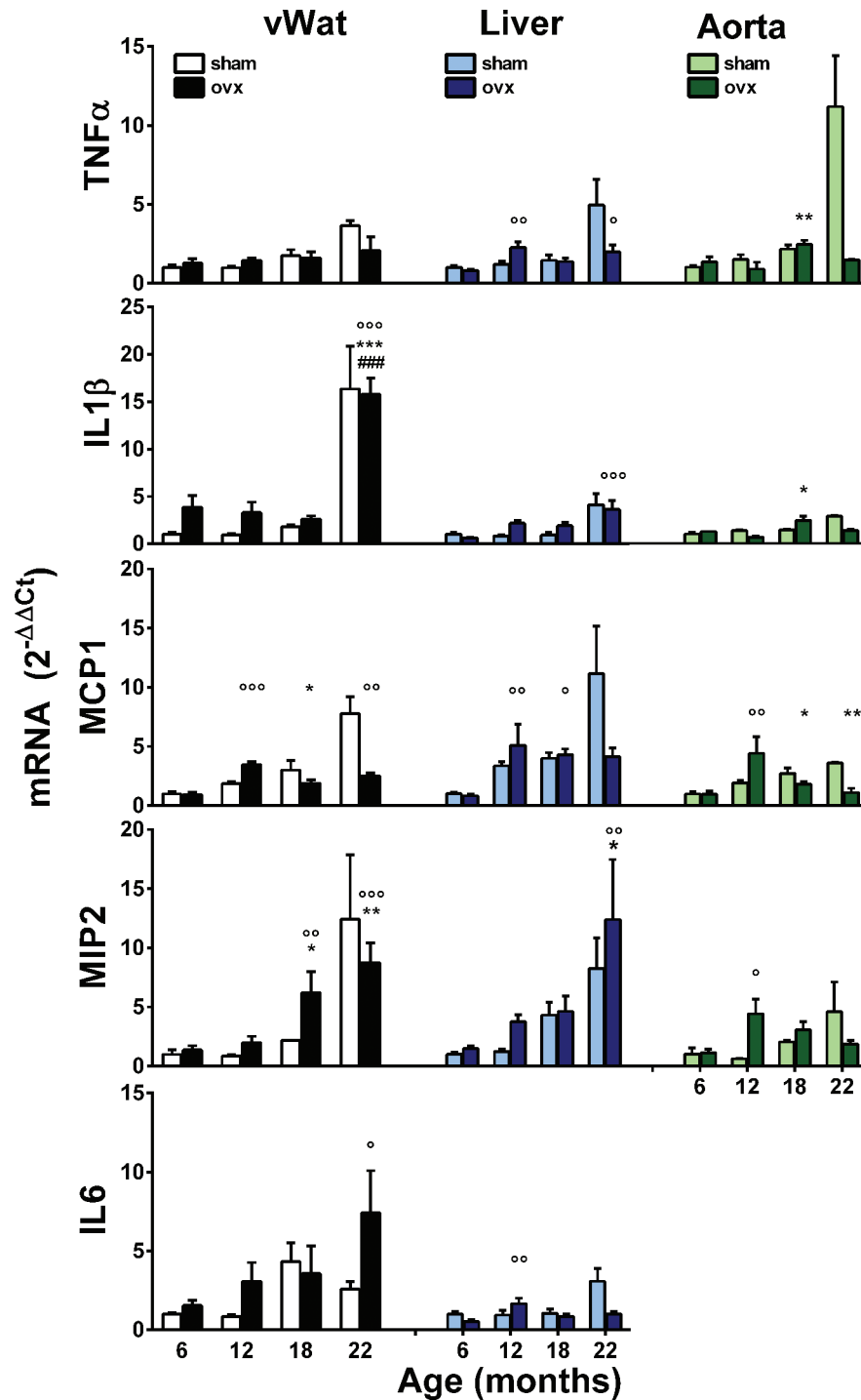


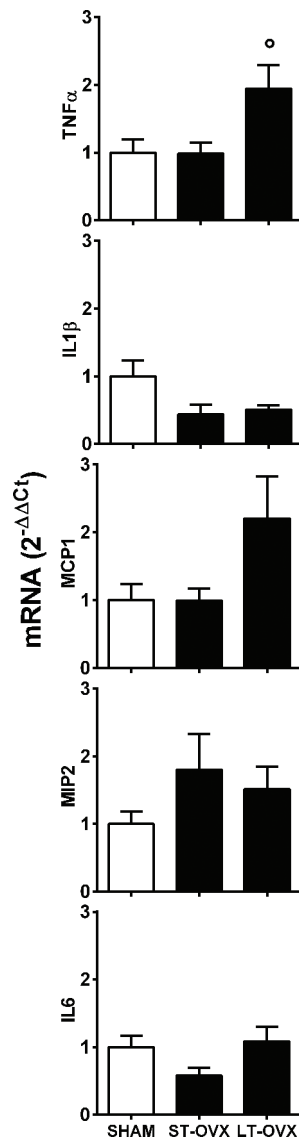
SUPPLEMENTARY FIGURES



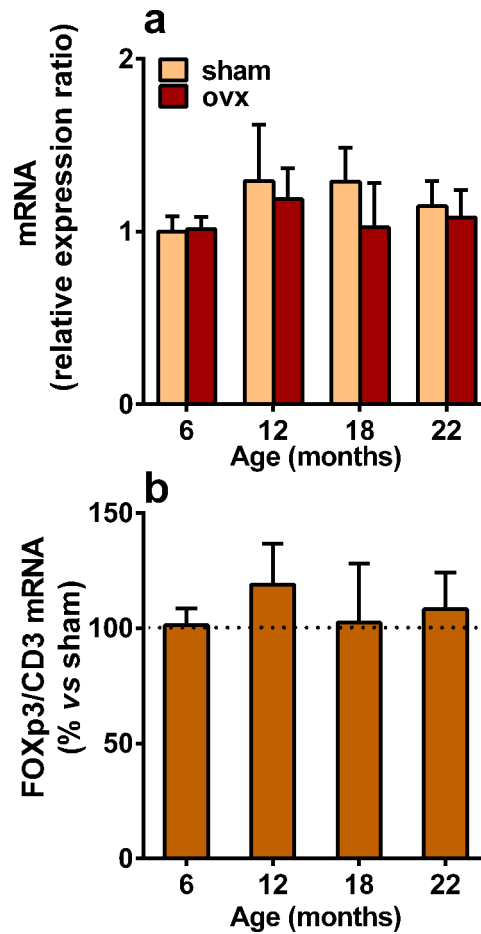
Supplementary Figure S1: Uterus weight in sham operated and ovx female mice at different ages. The uterus weight of each PPRE-lucRepTOP™ mouse was measured before tissue collection. Data are expressed as the mean \pm SEM and were analyzed by two-way ANOVA, followed by Bonferroni's *post hoc* test. * $P < 0.05$; ** $P < 0.01$; and *** $P < 0.001$. Superimposable data were obtained in the aging experiment using female ERE-LucRepTOP™.



Supplementary Figure S2: Comparative analysis of inflammatory mRNA content in the vWAT, liver and aorta of sham and ovx mice. TNF α , IL1 β , MCP-1, MIP-2 and IL-6 mRNA contents were measured by rtPCR using the vWAT, liver and aorta tissue extracts from sham-operated and OVX female mice. Data are expressed as the mean \pm SEM. The effect of ovx on the expression of aging-related inflammatory mRNAs was analyzed using one-way ANOVA, followed by Bonferroni's *post hoc* test. °P < 0.05; °°P < 0.01, °°°P < 0.001 vs. 6 months; *P < 0.05; **P < 0.01; and ***P < 0.001 vs. 12 months; #P < 0.05; ###P < 0.01, ###P < 0.001 vs. 18 months. Unpaired *t*-tests were performed to evaluate the effect of ovariectomy in each age group (Figure 2b). °P < 0.05; °°P < 0.01; and °°°P < 0.001 ovx vss sham.



Supplementary Figure S3: Effect of short- and long-term ovx on the production of inflammatory molecules in young mice. TNF α , IL1 β , MCP-1, MIP-2 and IL-6 mRNA contents were measured using rtPCR using liver tissue extracts from sham-operated female mice and female mice after OVX for 1 month (ST-OVX) or 4 months (LT-OVX). Data are expressed as the mean \pm SEM and were analyzed using one-way ANOVA, followed by Bonferroni's *post hoc* test. * $P < 0.05$; ** $P < 0.01$; and *** $P < 0.001$.



Supplementary Figure S4: Effect of aging and OVX on Fxp3 mRNA content in mouse spleen. (a) Treg activation in the spleen of sham-operated and ovx female mice was expressed as the ratio of Fxp3 to CD3 mRNA content. Data are expressed as the mean \pm SEM and were analyzed by two-way ANOVA, followed by Bonferroni's *post hoc* test. (b) The Fxp3/CD3 ratio of ovx mice is represented as a percentage of the mean of sham-operated mice of the same age. Data are expressed as the mean \pm SEM and were analyzed by one-way ANOVA, followed by Bonferroni's *post hoc* test.