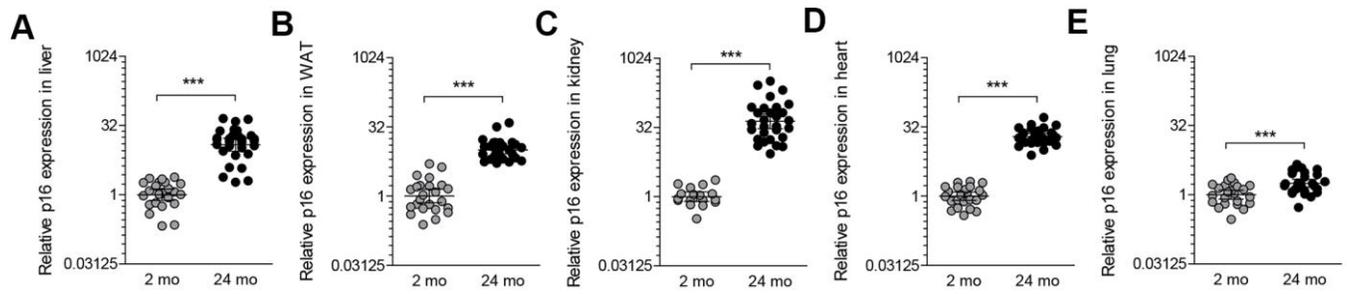
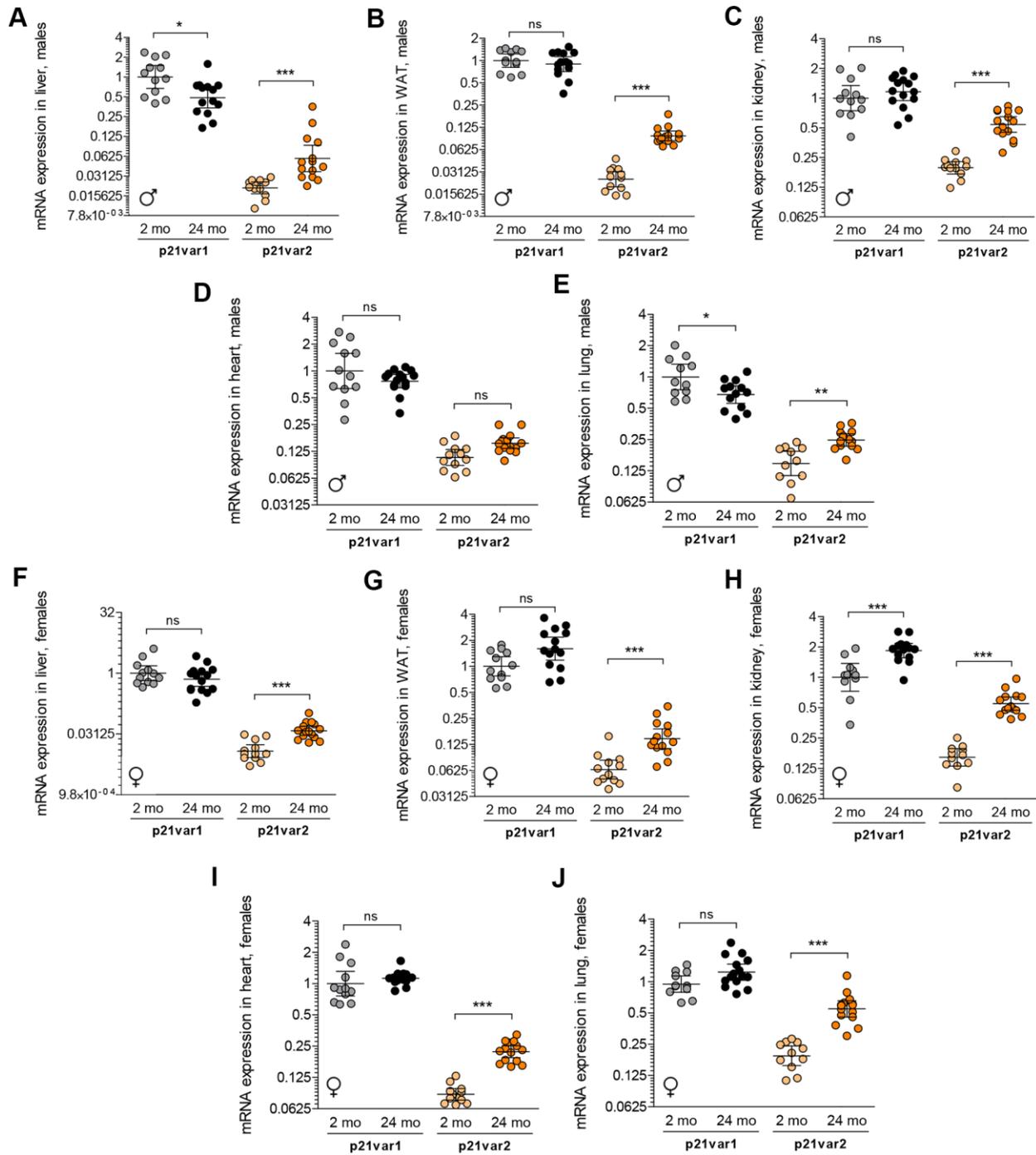


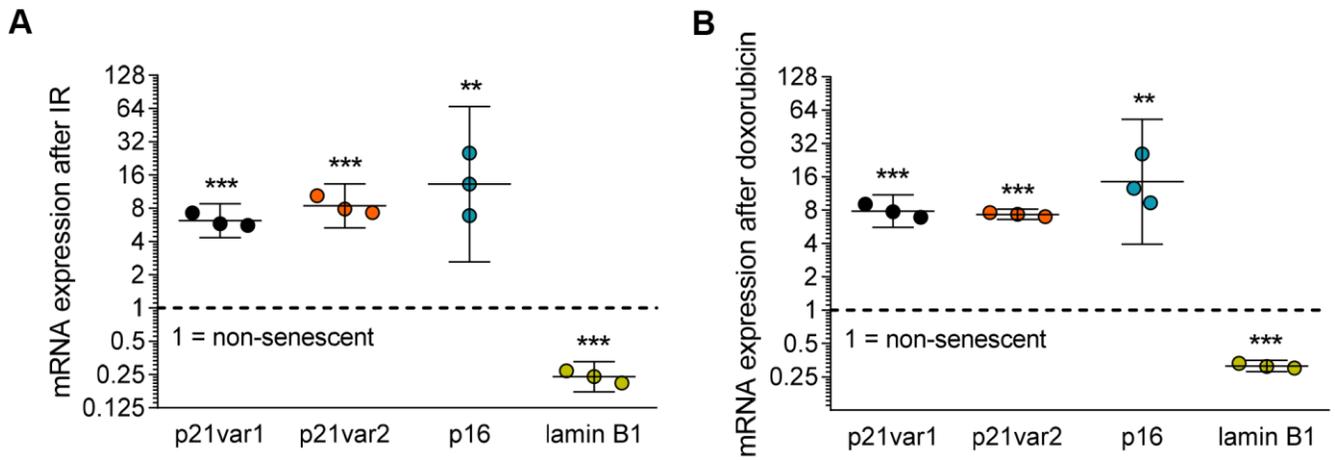
## SUPPLEMENTARY FIGURES



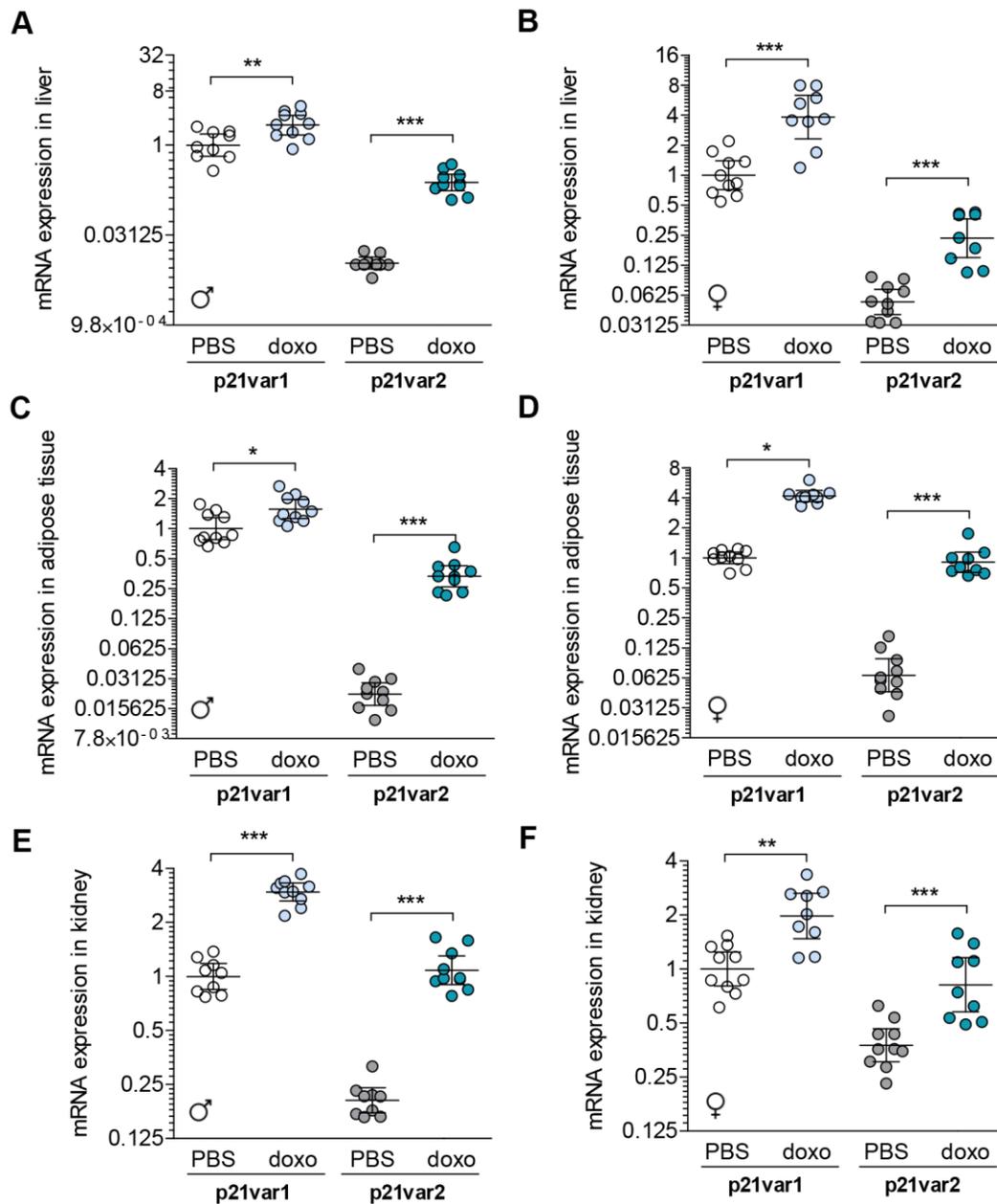
**Supplementary Figure 1. p16<sup>Ink4a</sup> mRNA levels increase with age in multiple tissues.** mRNA levels were determined in (A) liver, (B) white adipose tissue, (C) kidney, (D) heart and (E) lung of 2 and 24 month old mice (n = 24-28). Males and females were pooled. Note Y axes are log<sub>2</sub> scales. t-tests were applied. \*\*\* p < 0.001.



**Supplementary Figure 2. *Cdkn1a* transcript variants in young and aged male and female mice.** Levels of *Cdkn1a* variants in the (A) liver, (B) white adipose tissue, (C) kidney, (D) heart and (E) lung of male 2 and 24 month old mice from Figure 1. Expression levels in the (F) liver, (G) white adipose tissue, (H) kidney, (I) heart and (J) lung of female mice at the same ages. Note Y axes are log-2 scales. 1-way ANOVA and Tukey post-tests were applied. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , ns = not significant.



**Supplementary Figure 3. Markers of senescence in cultured mouse dermal fibroblasts.** (A) Levels of *Cdkn1a* transcript variants and p16Ink4a and lamin B1 mRNAs 7 days after irradiation (15 Gy). (B) Levels 7 days after a 24 h exposure to 250 nM doxorubicin. Note Y axes are log-2 scales. \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$  vs non-senescent control for each transcript (=1).



**Supplementary Figure 4. *Cdkn1a* transcript variants in doxorubicin-treated male and female mice.** Transcript levels were determined in (A, B) liver, (C, D) adipose tissue and (E, F) kidney of male or female 3.5 month old mice, 6 weeks after treatment with doxorubicin (n = 9-10 per sex or treatment). 1-way ANOVA and Tukey post-tests were applied. Note Y axes are log-2 scales. \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001, ns = not significant.