**Supplementary Table S1**

**Reference list for the expression of senescence biomarkers in chronological aging in human and animal models.**

| Organ/Tissue | Models | Senescence Markers | References |
| --- | --- | --- | --- |
| Heart | Mouse | * *p16INK4a,* and *p19ARF* increased with advanced age (up to 22 months).
* Telomerase activity decreased in aged mice.
 | Torella *et al*., 2004PMID: 14726476 |
| Mouse | * Telomere dysfunction increased with advanced age in cardiomyocytes (up to 30 months).
* *p16INK4a* increased with aged mice (up to 24 months).
 | Anderson *et al*., 2019PMID: 30737259 |
| Human  | * p16INK4a of cardiac progenitor cells (CPCs) was increased with advanced age.
* Telomere length was reduced with age.
 | Lewis-McDougall *et al*., 2019PMID: 30854802 |
| Liver | Mouse | * *Timp1*, *Mmp12*, *Cxcl1*, *Cxcl2*, *Ccl8*, *p16* and *p21* mRNA expression were upregulated with age in liver
 | Hudgins *et al*., 2018PMID: 29527222 |
| Human | * p16INK4a was significantly higher in aging populations (> 65 years old)
 | Zhu *et al*., 2014PMID: 24325248 |
| Skeleton | Mouse and human | * p16INK4amRNA expression was upregulated in the chondrocytes of aging mice (up to 27 months) and human populations.
 | Diekman *et al*., 2018PMID: 29744983 |
| Mouse and human  | * p16INK4a mRNA expression was significantly higher with aging in osteoblasts and osteocytes of mice.
* p21 mRNA expression was upregulated in osteocytes of aging mice(up to 24 months).
* IL-6 mRNA expression was upregulated in osteocytes of aging mice.
* p16INK4a and p21 mRNA expression was upregulated in aging human (76 years old)
 | Farr *et al*., 2016PMID: 27341653 |
| Kidney | Mouse | * *Il1a*, *Mmp3*, *Mmp12*, *Cxcl1*, *Cxcl2*, and *p21* mRNA expression were upregulated with age in kidney
 | Hudgins *et al*., 2018PMID: 29527222 |
| Human  | * p16INK4a mRNA and protein expression were upregulated with kidneys of aging populations.
* p16INK4a expression was correlated with age.
 | Melk *et al*., 2004PMID: 14717921 |
| Brain | Mouse | * A list of 20 cytokines was found to be upregulated in ventral hippocampus.
 | Porcher *et al*., 2021PMID: 34551810 |
| Mouse | * *Mmp12* and *Timp1* expression were upregulated with age in the right cerebral hemisphere of aged mice (up to 18 months).
 | Lui *et al*., 2013PMID: 23159549 |
| Mouse | * *Il1a*,*Timp1*, *Mmp12*, *Cxcl1*, *Cxcl2* were upregulated with age in hypothalamus
 | Hudgins *et al*., 2018PMID: 29527222 |
| Blood | Human  | * Serum IL-6 was increased with age.
 | Wei *et al*., 1992PMID: 1453878 |
| Mouse/Rat/Human | * Serum IL-6 and IL-6 receptors were increased with age.
 | Ershler and Keller, 2000PMID: 10774463  |
| Human  | * Serum IL-6 was positively correlated with age in males.
 | Young *et al*., 1999PMID: 10469050 |
| Human  | * Serum Timp1 markedly increased after 65 years old.
 | Ishikawa *et al*., 2019PMID: 33693092 |
| Others  | Mouse | * *p16INK4a* expression in cecum, ovary, and uterus was increased with age (up to 26 months).
 | Krishnamurthy *et. al*., 2004PMID: 15520862 |