



**UvA-DARE (Digital Academic Repository)**

**Life spanning murine gene expression profiles in relation to chronological and pathological aging in multiple organs.**

Jonker, M.J.; Melis, J.P.M.; Kuiper, R.V.; van der Hoeven, T.V.; Wackers, P.F.K.; Robinson, J.; van der Horst, G.T.J.; Dollé, M.E.T.; Vijg, J.; Breit, T.M.; Hoeijmakers, J.H.J.; van Steeg, H.

*Published in:*  
Aging Cell

*DOI:*  
[10.1111/accel.12118](https://doi.org/10.1111/accel.12118)

[Link to publication](#)

*Citation for published version (APA):*

Jonker, M. J., Melis, J. P. M., Kuiper, R. V., van der Hoeven, T. V., Wackers, P. F. K., Robinson, J., ... van Steeg, H. (2013). Life spanning murine gene expression profiles in relation to chronological and pathological aging in multiple organs. *Aging Cell*, 12(5), 901-909. <https://doi.org/10.1111/accel.12118>

**General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

**Supplemental information 12.** Predefined list of aging related gene-sets based on literature.

Source	Gene set	# genes
Gene Ontology	aging_GO:0007568	24
Gene Ontology	cell aging_GO:0007569	10
Gene Ontology	multicellular organismal aging_GO:0010259	7
Gene Ontology	response to reactive oxygen species_GO:0000302	16
Gene Ontology	response to hydrogen peroxide_GO:0042542	10
Gene Ontology	response to oxygen radical_GO:0000305	5
Gene Ontology	DNA repair_GO:0006281	177
Gene Ontology	base-excision repair_GO:0006284	16
Gene Ontology	double-strand break repair_GO:0006302	18
Gene Ontology	mismatch repair_GO:0006298	9
Gene Ontology	non-recombinational repair_GO:0000726	6
Gene Ontology	nucleotide-excision repair_GO:0006289	22
Gene Ontology	recombinational repair_GO:0000725	6
Gene Ontology	telomere maintenance_GO:0000723	17
Gene Ontology	response to oxidative stress_GO:0006979	45
Joost	Energy_restriction_and_the_GH.IGF.1_axis	13
Joost	DNA_metabolism	30
Joost	Oxidant_levels_and_redox_potential	18
Joost	Stress_response	5
BIOCARTA	ARENRF2_PATHWAY	14
BIOCARTA	INFLAM_PATHWAY	26
BIOCARTA	DEATH_PATHWAY	30
BIOCARTA	LONGEVITY_PATHWAY	15
BIOCARTA	STRESS_PATHWAY	25
BIOCARTA	WNT_PATHWAY	25
BIOCARTA	P53_PATHWAY	16
BIOCARTA	NFKB_PATHWAY	22
BIOCARTA	IGF1MTOR_PATHWAY	19
BIOCARTA	IGF1_PATHWAY	22
BIOCARTA	MTOR_PATHWAY	23
KEGG	OXIDATIVE_PHOSPHORYLATION	110
KEGG	MTOR_SIGNALING_PATHWAY	52
KEGG	BASE_EXCISION_REPAIR	30
KEGG	NUCLEOTIDE_EXCISION_REPAIR	43
KEGG	MISMATCH_REPAIR	22
KEGG	WNT_SIGNALING_PATHWAY	148
REACTOME	BASE_EXCISION_REPAIR	16
REACTOME	CELL_DEATH_SIGNALLING_VIA_NRAGE_NRIF_AND_NADE	54
REACTOME	DEATH_RECEPTOR_SIGNALLING	11
REACTOME	DNA_REPAIR	82
REACTOME	DOUBLE_STRAND_BREAK_REPAIR	19
REACTOME	EXTENSION_OF_TELOMERES	23
REACTOME	SIGNALING_BY_WNT	16
REACTOME	SYNTHESIS_OF_DNA	46
REACTOME	TELOMERE_MAINTENANCE_hs	37
REACTOME	APOPTOSIS	82
REACTOME	ENERGY_DEPENDENT_REGULATION_OF_MTOR_BY_LKB1_AMPK	12
REACTOME	MTOR_SIGNALLING	22
REACTOME	MTORC1_MEDIATED_SIGNALLING	10