

Title: Health and longevity studies in *C. elegans*: The “Healthy Worm Database” reveals strengths, weaknesses and gaps of test compound-based studies

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ESM_1: Overview of biogerontology databases

Short title	Full title and link	Reference	Short description	Organisms included	Type of biogerontology relevant data
AgeFactDB	JenAge Ageing Factor Database (http://agefactdb.jena.ge.de)	(Hühne et al. 2014)	Lifespan data connected to genes, compounds or other factors such as dietary restriction	<i>H. sapiens</i> & different model organisms	Lifespan linked to different interventions in models and GWAS-data in humans
AGEID	The aging genes/interventions database (Formerly: https://omictools.com/ageid-tool/ ; Now: http://www.uwaging.org/genesdb/)	(Kaeberlein et al. 2002)	A catalogue of lifespan experiments	<i>H. sapiens</i> , <i>M. musculus</i> , <i>D. melanogaster</i> , <i>C. elegans</i> , and <i>S. cerevisiae</i>	Mainly lifespan data related to gene-knockouts and knock-downs and GWAS-data in humans
AGEMAP	Atlas of Gene Expression in Mouse Aging Project (http://cmgm.stanford.edu/~kimlab/aging_mouse/)	(Zahn et al. 2007)	Changes in gene expression as a function of age in mice; downloadable datasheets only	<i>M. musculus</i>	Tissue-specific gene expression during aging
AnAge	The Animal Ageing and Longevity Database (http://genomics.senescence.info/species/)	(De Magalhaes and Costa 2009)	Featured by HAGR; Compilation of data on aging, longevity, and life history for comparative biology	<i>H. sapiens</i> and more than 4000 different species	Lifespan and life history data, no interventions
CID	CISBAN Interactomes Database (http://cisban-silico.cs.ncl.ac.uk/cid.html)	Developed by M. Taschuk, C. Simillion, J. Hallinan and A. Wipat	Cytoscape-based interaction data from model organisms used in aging research	11 model organisms, i.e. <i>C. elegans</i> , <i>H. sapiens</i> , <i>M. musculus</i> , <i>D. melanogaster</i>	Interactomes of genes
DAA	Digital Ageing Atlas (http://ageing-map.org/)	(Craig et al. 2014; Galperin et al. 2015)	Featured by HAGR; collection of age-related changes	<i>H. sapiens</i> & <i>M. musculus</i>	Tissue-specific molecular, physiological, psychological, and pathological changes related to aging
Degradome	The Mammalian Degradome Database	(Perez-Silva et al. 2016)	Collection of protease genes and their connection to diseases and aging	<i>H. sapiens</i> , <i>P. troglodytes</i> , and rodents	Mainly disease data linked to proteases

	(http://degradome.uniovi.es/dindex.html)				
DrugAge	The Database for Ageing-related Drugs (http://genomics.senescence.info/drugs/)	(Barardo et al. 2017)	Featured by HAGR; provides data on aging-related drugs across model organisms	30 different species; mainly <i>M. musculus</i> , <i>S. cerevisiae</i> , <i>C. elegans</i> , and <i>D. melanogaster</i>	Lifespan effects of compound treatments
GenAge	The Ageing Gene Database (http://genomics.senescence.info/genes/)	(de Magalhaes and Toussaint 2004)	Featured by HAGR; Database of genes related to aging	<i>H. sapiens</i> & 9 model organisms; mainly <i>M. musculus</i> , <i>D. melanogaster</i> , <i>C. elegans</i> , and <i>S. cerevisiae</i>	Mainly lifespan data related to gene knockouts and knock-downs, and GWAS-data in humans
GenDr	The Dietary Restriction Gene Database (http://genomics.senescence.info/diet/)	(Wuttke et al. 2012)	Featured by HAGR; Database of genes associated with dietary restriction	<i>M. musculus</i> , <i>S. cerevisiae</i> , <i>C. elegans</i> , <i>D. melanogaster</i> , and <i>S. pombe</i>	Mainly lifespan data related to gene knockouts and knock-downs
Geroprotectors	(http://geroprotectors.org)	(Moskalev et al. 2015)	Lifespan experiments with compound treatments	13 model organisms	Lifespan as influenced by compound treatments
HAGR	The Human Ageing Genomic Resources (http://genomics.senescence.info)	(De Magalhães et al. 2009; 2005; Tacutu et al. 2012; 2017)	Platform hosting different aging associated databases such as AnAge, DrugAge, GenAge, GenDR	See respective database	See respective database
LibAge	The Bibliographic Library for Ageing (http://libage.ageing-map.org/)	Developed by João Pedro de Magalhães	Featured by HAGR; Library for aging-related publications	Not determined	Aging-related literature
MitoAge	(http://www.mitoage.org/)	(Toren et al. 2016)	Database for comparative analysis of mitochondrial DNA	922 different species	Maximum lifespan linked to mitochondrial DNA sequence
NeuroMuscleDB	Neuro-Muscle Database	(Baig et al. 2019)	Genes associated with muscle development, neuromuscular diseases, aging, and neurodegeneration	<i>H. sapiens</i> , <i>M. musculus</i> , and <i>B. taurus</i>	Collection of muscle-related genes and connected phenotypes
SynergyAge	http://www.synergyage.info/	(Bunu et al. 2020)	Lifespan of animals which are modified by at least two genetic interventions	<i>D. melanogaster</i> , <i>M. musculus</i> , and <i>C. elegans</i>	Lifespan linked to genetic interventions

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