

Resource Summary Report

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Human Ageing Genomic Resources

RRID:SCR_007700

Type: Tool

Proper Citation

Human Ageing Genomic Resources (RRID:SCR_007700)

Resource Information

URL: <http://genomics.senescence.info/>

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Description: Collection of databases and tools designed to help researchers study the genetics of human ageing using modern approaches such as functional genomics, network analyses, systems biology and evolutionary analyses. A major resource in HAGR is GenAge, which includes a curated database of genes related to human aging and a database of ageing- and longevity-associated genes in model organisms. Another major database in HAGR is AnAge. Featuring over 4,000 species, AnAge provides a compilation of data on aging, longevity, and life history that is ideal for the comparative biology of aging. GenDR is a database of genes associated with dietary restriction based on genetic manipulation experiments and gene expression profiling. Other projects include evolutionary studies, genome sequencing, cancer genomics, and gene expression analyses. The latter allowed them to identify a set of genes commonly altered during mammalian aging which represents a conserved molecular signature of aging. Software, namely in the form of scripts for Perl and SPSS, is made available for users to perform a variety of bioinformatic analyses potentially relevant for studying aging. The Perl toolkit, entitled the Ageing Research Computational Tools (ARCT), provides modules for parsing files, data-mining, searching and downloading data from the Internet, etc. Also available is an SPSS script that can be used to determine the demographic rate of aging for a given population. An extensive list of links regarding computational biology, genomics, gerontology, and comparative biology is also available.

Abbreviations: HAGR

Resource Type: database, software resource, software toolkit, data or information resource

Defining Citation: [PMID:23193293](#)

Keywords: gene, gerontology, human, model, senescence, genomics, longevity, genetics, perl, spss, demographic analysis, genome, evolution, gene expression, model

organism, human aging, dietary restriction, genetic manipulation

Related Condition: Aging, Cancer

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European Union FP7 Health Research HEALTH-F4-2008-202047

Availability: GNU General Public License, Creative Commons Attribution v3 Unported License

Resource Name: Human Ageing Genomic Resources

Resource ID: SCR_007700

Alternate IDs: nif-0000-02938, r3d100011871

Alternate URLs: <https://doi.org/10.17616/R34W81>

Record Creation Time: 20220129T080243+0000

Record Last Update: 20260727T040432+0000

Ratings and Alerts

No rating or validation information has been found for Human Ageing Genomic Resources.

No alerts have been found for Human Ageing Genomic Resources.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 67 mentions in open access literature.

Listed below are recent publications. The full list is available at [SPARC SAWG](#) .

Lopez-Teros M, et al. (2025) Palmitate-Induced Primary Rat Senescent Astrocytes Exhibit Higher Inflammatory Activity and a Distinct Transcriptomic Profile Compared to Reactive Astrocytes. *Journal of neurochemistry*, 169(7), e70164.

Cox K, et al. (2025) Rapid Colonisation of Synanthropic Stone Martens in a Highly Urbanised Region: Insights From Temporal and Spatial Analysis. *Ecology and evolution*, 15(5), e71392.

Huang K, et al. (2025) Genetic targets related to aging for the treatment of coronary artery disease. *BMC medical genomics*, 18(1), 66.

Xiang M, et al. (2025) Machine learning-enabled identification of nucleus pulposus senescence-associated genes as potential biomarkers for intervertebral disc degeneration. *European journal of medical research*, 30(1), 887.

Karimi I, et al. (2025) The anti-aging potential of antihypertensive peptides of Pariset, a dataset of algal peptides. *Frontiers in aging*, 6, 1618082.

Li H, et al. (2025) Comprehensive Analysis Reveals the Potential Diagnostic Value of Biomarkers Associated With Aging and Circadian Rhythm in Knee Osteoarthritis. *Orthopaedic surgery*, 17(3), 922.

Du G, et al. (2025) Integrated Multiomics Analysis and Mendelian Randomization Identify SIRT1 as a Pivotal Aging-Associated Gene in Meningioma. *IUBMB life*, 77(11), e70072.

Zhang N, et al. (2025) Survival expectations in melanoma patients: a molecular prognostic model associated with aging. *Discover oncology*, 16(1), 253.

Dujon AM, et al. (2025) Towards a more robust comparative oncology: a Bayesian reanalysis of Peto's paradox and discussion of comparative cancer risk studies in vertebrates. *Royal Society open science*, 12(7), 250840.

Ji X, et al. (2025) Aging associated immunosenescence in rheumatoid arthritis identified by machine learning and single cell profiling. *Scientific reports*, 15(1), 31042.

Kang J, et al. (2025) Identifying the role of aging-related genes in intracranial aneurysms through bioinformatics analysis. *Chinese neurosurgical journal*, 11(1), 22.

Zhang Y, et al. (2024) Multi-omics data analysis reveals the complex roles of age in differentiated thyroid cancer. *Heliyon*, 10(13), e33595.

Du H, et al. (2024) Co-differential genes between DKD and aging: implications for a diagnostic model of DKD. *PeerJ*, 12, e17046.

He Y, et al. (2024) A novel aging-associated lncRNA signature for predicting prognosis in osteosarcoma. *Scientific reports*, 14(1), 1386.

Ramini D, et al. (2024) Replicative senescence and high glucose induce the accrual of self-derived cytosolic nucleic acids in human endothelial cells. *Cell death discovery*, 10(1), 184.

Gao H, et al. (2024) Identification and validation of aging-related genes in neuropathic pain using bioinformatics. *Frontiers in genetics*, 15, 1430275.

Shi J, et al. (2024) Development and experimental validation of a senescence-related long non-coding RNA signature for prognostic prediction and immune microenvironment characterization in gastric cancer patients. *Journal of gastrointestinal oncology*, 15(6), 2413.

Borges G, et al. (2024) A CRISPR base editing approach for the functional assessment of telomere biology disorder-related genes in human health and aging. *Biogerontology*, 25(2), 361.

de Magalhães JP, et al. (2024) Human Ageing Genomic Resources: updates on key databases in ageing research. *Nucleic acids research*, 52(D1), D900.

Zhang S, et al. (2024) Endogenous sulfur dioxide deficiency as a driver of cardiomyocyte senescence through abolishing sulphenylation of STAT3 at cysteine 259. *Redox biology*, 71, 103124.