Part X

Top 50 Longevity Databases

Analytical Report 2017

AGING ANALYTICS AGENCY
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Biogerontology Research Foundation
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DEEP KNOWLEDGE LIFE SCIENCES

Top Longevity Databases

1. AgeFactDB - The JenAge Ageing Factor Database
2. AgeInfo
3. AgeLine
4. AGEMAP
5. AgeStats and - AgeSource Worldwide
6. AGID - AGing Integrated Database
7. Aging Genes and Interventions Database
8. AlzGene Database
9. Alzheimer Disease & Frontotemporal
10. Atlas of Genetics and Cytogenetics in Oncology and Haematology
11. CDC Wonder
12. CID - Cross-Species Interactome Database
13. DAA - Digital Ageing Atlas
14. DrugAge
15. ERA-AGE Database
16. European Health for All Database (HFA-DB)
17. European mortality database (MDB)
18. GenAge
19. GenDR
20. GeroProtectors
21. GeroStat
22. GGP - Generations & Gender Programme
23. HFD - The Human Fertility Database
24. HMD - The Human Mortality Database
25. Human Life
26. IARP - International Aging Research Portfolio Database
27. IDB - International Data Base
28. IDL - International Database on Longevity
29. International Alzheimer‘s Disease Portfolio (IADRP)
30. iPAD - iNTERNET PRIMATE AGING DATABASE
31. K-T database - Kannisto-Thatcher Database on Old Age Mortality
32. Lifespan Observtions Database
33. LongevityMap
34. Longevity.international
35. Longevity Records
36. MitoInteractome
37. MITOMAP
38. MPD - Mouse Phenome database
39. Mutation Database for Parkinson‘s Disease (MDPD)
40. NACDA - National Archive of Computerized Data on Aging
41. NDAR - National Database of Ageing Research
42. NetAge
43. NIA - Population Studies Database
44. PDGene Database
45. PhenomicDB
46. PRIDE - PRoteomics IDEntifications database
47. REPAIRtoire
48. Shared Ageing Research Models (ShARM UK)
49. SurvCurv
50. The Silver Book
51. TMIG- 2DPAGE Database

AgeFactDB - The JenAge Ageing Factor Database

Website: http://agefactdb.jenage.de

Description:

The JenAge Ageing Factor Database AgeFactDB is aimed at the collection and integration of ageing phenotype and lifespan data. Ageing factors are genes, chemical compounds or other factors such as dietary restriction, for example.

In a first step ageing-related data are primarily taken from existing databases. In addition, new ageing-related information is included both by manual and automatic information extraction from the scientific literature.

Based on a homology analysis, AgeFactDB also includes genes that are homologous to known ageing-related genes. These homologs are considered as candidate or putative ageing-related genes.

AgeInfo

Website: http://www.cpa.org.uk/ageinfo/ageinfo.html

Description:

AgeInfo is an information service about old age and ageing. It includes a bibliographic database, detailed information about organisations active in the field of Old Age and Ageing and an international Calendar of Events (courses, conferences, meetings, training sessions, etc.).

Data access requires a payment.

EBSCO Health

AgeLine

Website: https://health.ebsco.com/products/ageline

Description:

This database focuses exclusively on issues of aging and the population of people aged 50 years and older. Updated on a weekly basis, AgeLine is the premier online resource for social gerontology research.

AgeLine covers the literature of social gerontology and includes aging-related content from the health sciences, psychology, sociology, social work, economics, and public policy. It indexes over 600 journals, books, book chapters, reports, dissertations, consumer guides, and educational videos.

Data access requires a payment.

AGEMAP: a gene expression database for aging in mice

AGEMAP

Website: http://cmgm.stanford.edu/~kimlab/aging_mouse/

Description:

We present the AGEMAP gene expression database, which is a resource cataloging genome-wide changes in gene expression as a function of age in mice. The AGEMAP database includes expression changes for 8,932 genes in 16 tissues as a function of age. We found great heterogeneity in the amount of transcriptional changes with age in different tissues. Some tissues displayed large transcriptional differences in old mice, suggesting that these tissues may contribute strongly to organismal decline. Other tissues showed little or no changes in expression with age, indicating strong levels of homeostasis throughout life. Based on the pattern of age-related transcriptional changes, we found that most tissues could be classified into one of three distinct modes for aging: a pattern common to neural tissues, a pattern for vascular tissues, and a pattern for glandular tissues. We observed that different tissues age in a coordinated fashion in individual mice, such that certain individual mice exhibit rapid aging whereas other individuals exhibit slow aging for multiple tissues. Finally, we compared the transcriptional profiles for aging in mice to those from humans, flies and worms. We found that genes involved in the electron transport chain show common age-regulation in all four species, indicating that these genes may be exceptional good markers of age. However, we saw no overall correlation between age-regulation in mice and in humans, indicating that the aging process in mice and humans may be fundamentally different.

AgeStats and - AgeSource Worldwide

Website: http://www.aarpinternational.org/resource-library/agesource-agestats

Description:

These two databases have been created by AARP to facilitate the international exchange of policy and program-relevant information in aging. AgeSource Worldwide identifies several hundred information resources in some 25 countries which are significant either in size or in their unique coverage of particular aging-related issues. The resources include, among others, clearinghouses, libraries, databases, training modules, major reports, and Web metasites. More about AgeSource Worldwide AgeStats Worldwide provides access to comparative statistical data that compare the situation of older adults across countries or regions around a variety of issues areas. The most recent data and projections as far ahead as 2060 are provided where available.

Administration for Community Living
AGing Integrated Database (AGID)

AGID - AGing Integrated Database

Website: https://agid.acl.gov/

Description:

The AGing Integrated Database (AGID) is an on-line query system based on ACL-related data files and surveys, and includes population characteristics from the Census Bureau for comparison purposes. The four options or paths through AGID provide different levels of focus and aggregation of the data – from individual data elements within Data-at-a-Glance to full database access within Data Files.

Before you begin your query, please review AGID's Resources section with an "About AGID" overview, descriptions of data sources, and frequently asked questions (FAQs). Even experienced AGID users may find the Resources documentation helpful. At any time, you may select from one of the four options below and follow the system prompts. If you need additional assistance, please complete an AGID Support request from the link found at the bottom left of every AGID screen.

Aging Genes and Interventions Database

Website: http://www.uwaging.org/genesdb/

Description:

AnAge is a curated database of ageing and life history in animals, including extensive longevity records. It was primarily developed for comparative biology studies, in particular studies of longevity and ageing.

AlzGene Database

Website: http://www.alzgene.org/

Description:

We have developed this special section of the Alzforum website to provide a resource for all who share an intense interest in familial early-onset AD (eFAD). We have created this series of articles for patients, family members, doctors and care providers, who need reliable, up-to-date information about diagnosis, treatment, genetic counseling and testing, and life issues connected with having this hereditary disorder.

Alzheimer Disease & Frontotemporal

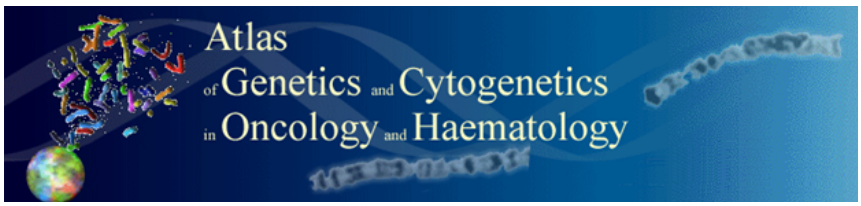
Website: http://www.molgen.ua.ac.be/ADMutations/

Description:

The Alzheimer Disease & Frontotemporal Dementia Mutation Database (AD&FTDMDB) aims at collecting all known mutations and non-pathogenic coding variations in the genes related to Alzheimer disease (AD) and frontotemporal dementia (FTD).

The AD&FTDMDB website was launched in September 1999 as a locus-specific database (Horaitis et al., Nature Genetics 39: 425, 2007) following the guidelines of the Human Genome Variation Society. In 2007, a link to the UCSC human genome browser was made in collaboration with PhenCode.

The database is updated continuously and contains mutations reported in the literature and at scientific meetings, and unpublished mutations directly submitted to the database. To date, AD&FTDMDB contains mutations in the genes encoding the Amyloid Beta Precursor Protein (APP), Presenilin 1 (PSEN1), Presenilin 2 (PSEN2), chromosome 9 open reading frame 72 (C9orf72), Chromatin Modifying Protein 2B (CHMP2B), fusion (involved in t(12;16) in malignant liposarcoma) (FUS), Granulin (GRN), Microtubule Associated Protein Tau (MAPT), TAR DNA binding protein (TARDBP), TANK-binding kinase 1 (TBK1) and Valosin-containing Protein (VCP) and holds 517 different mutations observed in 1646 patients or families.



Atlas of Genetics and Cytogenetics in Oncology and Haematology

Website: http://atlasgeneticsoncology.org/

Description:

The Atlas of Genetics and Cytogenetics in Oncology and Haematology is a peer reviewed on-line journal and database devoted to genes, cytogenetics, and clinical entities in cancer, and cancer-prone diseases.

CDC Wonder

Website: https://wonder.cdc.gov/

Description:

CDC Wide-ranging ONline Data for Epidemiologic Research (CDC WONDER) is a web application that makes many health-related data sets available to the worldwide public health community. Users include state and local health departments, academic researchers, healthcare providers, CDC surveillance programs, and the general public. The data found on CDC WONDER aid users in public health research, decision making, priority setting, program evaluation, and resource allocation.
CDC WONDER manages nearly 20 collections of public-use data for U.S. births, deaths, cancer diagnoses, Tuberculosis (TB) cases, vaccinations, environmental exposures, and population estimates, among many other topics. These data collections are available as online databases, which provide public access to adhoc queries, summary statistics, maps, charts, and data extracts. Most of the data are updated annually; some collections are updated monthly or weekly. System functions include the following: creates tables, maps, charts, and data exports with the ability to index data from any field or limit data by any field; produces ad-hoc summary statistics, such as frequency counts, rates, confidence intervals, standard errors, and percentages; organizes data results into categories; and compares specific populations, locations, and/or groups of people with custom measures, such as age-adjusted rates calculated with various standard populations. These data are available in several file formats, including web pages (HTML), chart and map images (jpgs), and spreadsheet files (simple text [ASCII] with tab-separated values).

CID - Cross-Species Interactome Database

Website: http://cisban-silico.cs.ncl.ac.uk/cid.html

Description:

The CISBAN Interactomes Database (CID) integrates interaction data from a range of model organisms used in ageing research. The project has two specific goals. The first is to integrate individual interaction datasets from publicly available data sources for each organism into a weighted probabilistic network. The second is to facilitate comparative interactomics analyses by providing a tool to transfer and compare interaction data between different organisms.

DAA - Digital Ageing Atlas

Website: http://ageing-map.org/

Description:

The Digital Ageing Atlas (DAA) is a portal of age-related changes covering different biological levels. It integrates molecular, physiological, psychological and pathological age-related data to create an interactive portal that serves as the first centralised collection of human ageing changes and pathologies.

To facilitate integrative, system-level studies of ageing, the DAA provides a centralised source for ageing-related data as well as basic tools to query and visualize the data, including anatomical models. Data in the DAA is manually curated from the literature and retrieved from public databases. For more detailed analyses users are able to download the entire database.

The DAA primarily focuses on human ageing, but also includes supplementary mouse data, in particular gene expression data, to enhance and expand the information on human ageing.

DrugAge

Website: http://genomics.senescence.info/drugs/

Description:

The DrugAge database contains an extensive compilation of drugs, compounds and supplements (including natural products and nutraceuticals) with anti-ageing properties that extend longevity in model organisms. Our focus is on drugs/compounds potentially impacting on ageing, and therefore drugs/compounds extending lifespan in disease-prone animals (e.g., cancer models) are excluded.

ERA-AGE Database

Website: http://era-age.group.shef.ac.uk/explore-the-database.html

Description:

The aim of ERA-AGE 2 is to enlarge the consortium to a critical mass and use this to mount Europe's first ageing research programme supported principally by the Member States: the New European Dynamics of Ageing Programme (NEDA).

ERA-AGE 2 comprises thirteen partners who are each public authorities responsible for the funding and coordination of national research programmes, and since 2009 has recruited six associate partners. The expansion of the consortium enables and maximises the sharing of experiences and build a critical mass of ageing research.

The network is coordinated by the UK representative The New Dynamics of Ageing Programme and it is supported by a steering group of project partners.

European Health for All Database (HFA-DB)

Website: http://www.euro.who.int/en/data-and-evidence/databases/european-health-for-all-family-of-databases-hfa-db

Description:
Provides a selection of core health statistics covering basic demographics, health status, health determinants and risk factors, and health-care resources, utilization and expenditure in the 53 countries in the WHO European Region. It allows queries for country, intercountry, and regional analyses.

Since the mid-1980s, Member States of the WHO European Region have been reporting essential health-related statistics to the Health for All (HFA) family of databases, making it one of WHO's oldest sources of data. As it is based on reported data, rather than estimates, the HFA family of databases is also particularly valuable.

HFA databases bring together the indicators that are part of major monitoring frameworks relevant to the Region, such as Health 2020 and the Sustainable Development Goals. The indicators cover basic demographics, health status, health determinants and risk factors, as well as health care resources, expenditures and more.

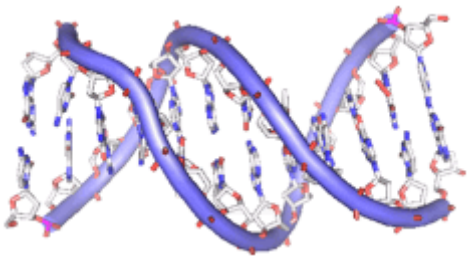
HFA databases allow access to regional, national and some subnational indicators and metadata, which are visualized through interactive online tools in the Health for All explorer. Data, metadata, graphs and maps can be exported or shared online and on social media.

European mortality database (MDB)

Website: http://data.euro.who.int/hfamdb/

Description:

WHO is the authority responsible for public health within the United Nations system. The WHO Regional Office for Europe (WHO/Europe) is one of WHO's six regional offices around the world.
It serves the WHO European Region, which comprises 53 countries, covering a vast geographical region from the Atlantic to the Pacific oceans. WHO/Europe staff are public health, scientific and technical experts, based in the main office in Copenhagen, Denmark, in 3 technical centres and in country offices in 29 Member States.

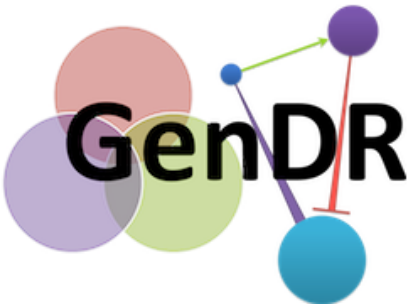


GenAge

Website: http://genomics.senescence.info/genes/

Description:

Welcome to GenAge, the benchmark database of genes related to ageing. GenAge is divided into genes related to longevity and/or ageing in model organisms (yeast, worms, flies, mice, etc.) and ageing-related human genes. The section on human ageing-related genes includes the few genes directly related to ageing in humans plus the best candidate genes obtained from model organisms. Human genes are thus considerably better annotated and include more information. GenAge is manually curated by experts to ensure high-quality content



GenDR

Website: http://genomics.senescence.info/diet/

Description:

Dietary restriction (DR), limiting nutrient intake from diet without causing malnutrition, retards age-related degeneration and extends lifespan in multiple organisms. DR induces multiple changes, yet its underlying mechanisms remain poorly understood. To facilitate research on the genetic and molecular mechanisms of DR-induced life-extension, we developed GenDR, a database of genes associated with DR. GenDR includes two datasets: 1) genes inferred from experiments in model organisms in which genetic manipulations cancel out or disrupt the life-extending effects of DR; 2) genes robustly altered due to DR, derived from a meta-analysis of microarray DR studies in mammals. An analysis of the gene network of DR has also been performed using GenDR.

Understanding the genetic basis of DR is of great importance not only to the biology of ageing but to understand how diet can influence ageing, longevity, health and age-related diseases. Pharmaceutical interventions that target DR-associated genes are also an emerging area with huge potential.

GeroProtectors

Website: http://geroprotectors.org/

Description:

A "geroprotector" is any intervention that aims to increase longevity, or that reduces, delays or impedes the onset of age-related pathologies by hampering aging-related processes, repairing damage or modulating stress resistance.

The Geroprotectors.org database comprises more than 250 life-extension experiments in 11 wild-type model organisms (including M. musculus and C. elegans, among others). We gathered data about more than 200 chemicals promoting longevity, including compounds approved for human use. This database integrates information about lifespan-increasing experiments and related compounds, suppression of aging mechanisms, activation of longevity mechanisms and age-related diseases obtained from research papers and databases.

Geroprotectors.org is intended as a tool for accelerating the process of identifying geroprotectors from a variety of existing substances through pharmacological modeling and biostatistical analysis to reveal new substances with geroprotective effects.

GeroStat

Website: http://www.gerostat.de/en/index.html

Description:

GeroStat offers gerontological and demographic data from official statistics and from social research. GeroStat is an information service provided by the German Centre of Gerontology, Berlin and funded by the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth.

GGP - Generations & Gender Programme

Website: http://www.demogr.mpg.de/cgi-bin/databases/GGP/index.plx?dest=nidi

Description:

Welcome to the Contextual Database (CDB) and to the Contextual Data Collection (CDC) of the Generations and Gender Programme (GGP).

The Contextual Database gives easy and open access to comparable, aggregated contextual data, which can be linked to the individual level data of the Generations and Gender Surveys. It contains demographic, economic, and policy indicators. We provide data at the national level, and, wherever possible, at the regional level, for GGP countries as well as other countries in Europe, North America. The Contextual Data Collection are zip-files containing the original data collected by the national partners of GGP-countries for the Contextual Database. It gives access also to those indicators, which have until now not been harmonised across countries. The Contextual Data Collection is available for download on the main page of the database.

The Human Fertility Database

HFD - The Human Fertility Database

Website: http://www.humanfertility.org/cgi-bin/main.php

Description:

The Human Fertility Database (HFD) is a joint project of the Max Planck Institute for Demographic Research (MPIDR) in Rostock, Germany and the Vienna Institute of Demography (VID) in Vienna, Austria, based at MPIDR. We seek to provide free and user-friendly access to detailed and high-quality data on period and cohort fertility and thus to facilitate research on changes and inter-country differences in fertility in the past and in the modern era. The HFD is entirely based on official vital statistics and places a great emphasis on data checking and documentation and on warranting data comparability across time and countries by means of uniform methodology.

The Human Mortality Database

HMD - The Human Mortality Database

Website: http://www.mortality.org/

Description:

The Human Mortality Database (HMD) was created to provide detailed mortality and population data to researchers, students, journalists, policy analysts, and others interested in the history of human longevity. The project began as an outgrowth of earlier projects in the Department of Demography at the University of California, Berkeley, USA, and at the Max Planck Institute for Demographic Research in Rostock, Germany (see history). It is the work of two teams of researchers in the USA and Germany (see research teams), with the help of financial backers and scientific collaborators from around the world (see acknowledgements). The Center on the Economics and Development of Aging (CEDA) French Institute for Demographic Studies (INED) has also supported the further development of the database in recent years.

Human Life Table Database

Human Life

Website: http://www.lifetable.de/

Description:

Life tables describe the extent to which a generation of people (i.e. life table cohort) dies off with age. Life tables are the most ancient and important tool in demography. They are widely used for descriptive and analytical purposes in demography, public health, epidemiology, population geography, biology and many other branches of science.

The Human Life-Table Database is a collection of population life tables covering a multitude of countries and many years. Most of the HLD life tables are life tables for national populations, which have been officially published by national statistical offices. Some of the HLD life tables refer to certain regional or ethnic sub-populations within countries. Parts of the HLD life tables are non-official life tables produced by researchers.

HLD includes the following types of data:

- complete life tables in text format;
- abridged life tables in text format;
- references to statistical publications and other data sources;
- scanned copies of the original life tables as they were published.

Three scientific institutions are jointly developing the HLD: the Max Planck Institute for Demographic Research (MPIDR) in Rostock, Germany, the Department of Demography at the University of California at Berkeley, USA and the Institut national d'études démographiques (INED) in Paris, France. The MPIDR is responsible for maintaining the database.

A big set of life tables was collected for and given to the HLD by Dr. Väinö Kannisto, a former United Nations advisor on demographic and social statistics. Professor J.W.Vaupel, Founding Director of the MPIDR, provided a general guidance to the HLD project.

Also supported the further development of the database in recent years.

IARP - International Aging Research Portfolio Database

Website: http://agingportfolio.org/

Description:

The International Aging Research Portfolio (IARP) is an independent initiative serving the aging research community, academic, corporate, patient advocacy and charitable funding organizations worldwide.

The AgingPortfolio.Org system is a flexible and highly scalable knowledge management system developed to enable funding organizations to collaborate, track, analyze, structure, make decisions and set directions for future research efforts in aging and also address the needs of research investigators, health care policy makers, government officials, interest groups and general public.

The goal of the International Aging Research Portfolio is to become a centralized portal for aging research providing highly granular relevant information to scientists, funding organizations, policy makers and providing a platform for collaboration and research.

At present, IARP incorporates databases of grants from multiple sources such as the NIH, European Commission, CIHR, and MRC. It also incorporates MEDLINE publication abstracts under a license from the National Library of Medicine.

The database contains millions of research projects with funding information and is fully searchable. The system also provides a categorized directory for the aging research projects. In addition to the manual classification by the SAB members, the system uses semantic classification algorithms to automatically classify projects into research areas related to aging.

The flexibility of the system provides different views on aging and age-related projects in order to find trends and analyze the current status of the investigations. It also gives the opportunity to build new classification taxonomies to look at the problem of aging research at different points. Thus, the first centralized system for tracking such complex, interdisciplinary and controversial area as aging research was developed and made available to the public via AgingPortfolio.org.

IDB - International Data Base

Website: https://www.census.gov/population/international/data/idb/informationGateway.php

Description:

The International Data Base (IDB) of the United States Census Bureau provides demographic information (e.g.: population size, fertility, mortality, migration, population pyramids) by country or region over time. The data are also projected into the future.

IDL - International Database on Longevity

Website: http://www.supercentenarians.org/

Description:

The International Database on Longevity (IDL) is the result of an ongoing concerted effort to provide thoroughly validatedinformation on individuals who attain extreme ages. The IDL allows for the demographic analysis of mortality at the highest ages. Originally, the data were collected on individuals who attained an age of 110 years or more - so called supercentenarians. In the meantime the data collection has been extended to include younger ages for some countries.

The information entered into the IDL is supplied by a group of international contributors. The data collection is performed in such a way that age-ascertainment bias is avoided and detailed meta-data are given for each country. This information is essential for valid demographic analyses.

The IDL takes great steps to secure data privacy. All individual information is made anonymous, and no information on the identity of any individual will be made available.

International Alzheimer‘s Disease Portfolio (IADRP)

Website: https://iadrp.nia.nih.gov/cadro-web/

Description:

Alzheimer’s disease is recognized as a public health crisis worldwide. As public and private funding agencies around the world enhance and expand their support of Alzheimer’s disease research, there is an urgent need to coordinate funding strategies and leverage resources in order to maximize the impact on public health and avoid duplication of effort and inefficiency. Such coordination requires a comprehensive assessment of the current landscape of Alzheimer’s disease research in the US and internationally. To capture and compare their existing investments in AD research and research-related resources, funding organizations need to use a common language and a common classification system. To this end, the National Institute on Aging (NIA) at the National Institutes of Health (NIH) and the Alzheimer’s Association (ALZ) developed the Common Alzheimer’s Disease Research Ontology (CADRO). NIA and ALZ hope to expand the use of the CADRO to other federal and non-federal organizations supporting AD research in the US and internationally and their portfolio information to this publicly available International Alzheimer’s Disease Research Portfolio. To date, the US federal and non-federal organizations listed below have contributed their AD research portfolios for inclusion in the IADRP.

iPAD - iNTERNET PRIMATE AGING DATABASE

Website: http://ipad.primate.wisc.edu/

Description:

The internet Primate Aging Database (iPAD) is a multi-centered, relational database of biological variables in aging, captive nonhuman primates. Through joint initiative of the National Institute on Aging (intramural and extramural programs), National Center for Research Resources (NCRR), and the National Primate Research Center at the University of Wisconsin-Madison (WNPRC), we have organized a database to study biomarkers of aging in nonhuman primates. iPAD also provides an invaluable veterinary and clinical resource, and can generate normative data for numbers of animals across research settings. iPAD now contains over 1,000,000 data points for body weight, blood chemistry and hematology, for healthy, non-experimental subjects across time.

The iPAD contains data from a number of different primate research facilities, and therefore pooled data across sites may represent different housing conditions, diets, and assay procedures. All subjects were control animals (i.e., non-experimental) and deemed healthy at the time of measurement. Data values for each age represent a mean of the measures for an individual subject for a three-month period.

K-T database - Kannisto-Thatcher Database on Old Age Mortality

Website: http://www.demogr.mpg.de/databases/ktdb/default.htm

Description:

The Kannisto-Thatcher database on old age mortality (K-T database) includes data on death counts and population counts classified by sex, age, year of birth, and calendar year for more than 30 countries. This database was established for estimating the death rates at the highest ages (above age 80). The core set of data in the database was assembled, tested for quality, and converted into cohort mortality histories by Väinö Kannisto, the former United Nations advisor on demographic and social statistics.

Comparable materials on England and Wales, was made available by A. Roger Thatcher, the former Director of the Office of Population Censuses and Surveys and Registrar-General of England and Wales [Kannisto, 1994]. With research funding provided by the U.S. National Institute on Aging and the Danish Research Councils, the Kannisto-Thatcher data base was computerized under the supervision of James W. Vaupel at the Aging Research Unit of the Centre for Health and Social Policy at Odense University Medical School in 1993.

Currently, the database is maintained by the Max Planck Institute for Demographic Research, Germany.

Lifespan Observtions Database

Website: http://kaeberleinlab.org/projects/lifespan-observations-database

Description:

The Lifespan Observations database contains data on the lifespan effects of interventions by genetic engineering, chemical compounds (e.g.: rapamycin) and environmental effects (e.g.: irradiation) across multiple species. The database is community-driven which means that users are allowed to submit and to edit data.

Longevity.international

Website: http://longevity.international

Description:

Longevity.International provides longevity industry services crucial to its functioning on all levels. The platform contains a network section allowing different stakeholders in the longevity industry, from companies to investors to scientists to activists, to connect with one another and collaborate. With its interactive database section employing automated data filtering and visualization of longevity company and investor databases, Longevity.International provides vital information to the industry and presenting new opportunities for everyone in the field. Longevity.International contains latest Longevity Industry Reports allowing the complementary overview of the current longevity landscape: from the most successful investors and disruptive startups to the recent advancements in science, technology and regulation fields.

LongevityMap

LongevityMap

Website: http://genomics.senescence.info/longevity/

Description:

The database of human genetic variants associated with longevity. Negative results are also included in the LongevityMap to provide visitors with as much information as possible regarding each gene and variant previously studied in context of longevity. As such, the LongevityMap serves as a repository of genetic association studies of longevity and reflects our current knowledge of the genetics of human longevity.

Longevity Records

Website: http://www.demogr.mpg.de/longevityrecords/

Description:

«Longevity Records: Life Spans of Mammals, Birds, Amphibians, Reptiles, and Fish» is a book on life spans of a large collection of organisms (Odense Monographs on Population Aging 8, JR Carey & DS Judge, Odense University Press 2001,ISBN 87-7838-539-3, ISSN 0909-119X). The data tables of the book are available and searchable online.

MitoInteractome

Website: https://www.kobic.re.kr/

Description:

The web-based portal containing information on predicted protein-protein interactions, physico-chemical properties, polymorphism, and diseases related to the mitochondrial proteome. It contains several thousand protein sequences which were extracted from the following databases: SwissProt, MitoP, MitoProteome, HPRD and Gene Ontology database.

MITOMAP

Website: https://www.mitomap.org//MITOMAP

Description:

MITOMAP is a compendium of polymorphisms and mutations of the human mitochondrial DNA. It reports published and unpublished data on human mitochondrial DNA variation, curated manually.

MITOMAP reports published data on human mitochondrial DNA variation. Currently variant tables report frequencies from 37528 full length human mitochondrial DNA sequences.

MPD - Mouse Phenome database

Website: https://phenome.jax.org/

Description:

The Mouse Phenome Database (MPD, RRID:SCR_003212) enables the integration of genomic and phenomic data by providing access to primary experimental data, well-documented data collection protocols and analysis tools. Data are contributed by investigators from around the world and represent a broad scope of behavioral, morphological and physiological disease-related characteristics in naive mice and those exposed to drugs, environmental agents or other treatments.

Data in MPD include per mouse and per strain data from genetic reference populations for which data are cumulative over time and across laboratories. Strain types include inbred, recombinant inbred, Collaborative Cross, chromosome substitution, mutants, and others. In addition, there are data from heterogeneous mice in mapping populations including Diversity Outbred and other inbred mouse strain crosses in the QTL Archive.

MPD provides a venue for compliance with data sharing policies and facilitates data reuse and data integration to provide a means of analyzing trait relations, discovering the biological basis of complex traits, and assessing replicability and reproducibility across experimental conditions and protocols.

MPD is a grant-funded research resource headquartered at The Jackson Laboratory.

Mutation Database for Parkinson‘s Disease (MDPD)

Website: http://datam.i2r.a-star.edu.sg/mdpd/index.php
https://omictools.com/mutation-database-for-parkinson-s-disease-tool

Description:

MDPD provide access to information about genes related to Parkinson‘s disease.
An integrated genetic information resource for Parkinson’s disease. MDPD contains 2,391 entries on 202 genes extracted from 576 publications and manually examined by biomedical researchers. Each genetic substitution and the resulting impact are clearly labelled and linked to its primary reference. Every reported gene has a summary page that provides information on the variation impact, mutation type, the studied population, mutation position and reference collection. In addition, MDPD provides a unique functionality for users to compare the differences on the type of mutations among ethnic groups.

National Archive of Computerized Data on Aging

NACDA - National Archive of Computerized Data on Aging

Website: http://www.icpsr.umich.edu/icpsrweb/NACDA/

Description:

The National Archive of Computerized Data on Aging (NACDA), located within ICPSR, is funded by the National Institute on Aging. NACDA's mission is to advance research on aging by helping researchers to profit from the under-exploited potential of a broad range of datasets.
NACDA acquires and preserves data relevant to gerontological research, processing as needed to promote effective research use, disseminates them to researchers, and facilitates their use. By preserving and making available the largest library of electronic data on aging in the United States, NACDA offers opportunities for secondary analysis on major issues of scientific and policy relevance. The NACDA staff represents a team of professional researchers, archivists and technicians who work together to obtain, process, distribute, and promote data relevant to aging research.

NDAR - National Database of Ageing Research

Website: http://www.cpa.org.uk/research/ndar_about.html

Description:

NDAR, the National Database of Ageing Research is the Centre for Policy on Ageing's database of research into ageing and older people. The focus is on current and ongoing research. In addition to research information provided by CPA's information staff, registered researchers and research organisations can add and update information about their own research projects .

As with the AgeInfo databases, the Research database is fully indexed and searchable. The National Database of Ageing Research (NDAR) aims to be a fully comprehensive on-line resource of both research in progress and forthcoming research within the UK on all non-medical aspects of older age. The resource was originally established in 1955 as 'old age: a register of social research' and published annually for many years in directory format.

The database contents are drawn from research projects, both internally and externally funded, being carried out within a range of settings -

- academic sector
- voluntary and independent sector
- local and central government
- independent 'think tanks'

The database is fully structured and searchable and covers all aspects of the research including - the researching organisation; title of the research; aims; a summary of findings; subject keywords; research methods used; researchers and other staff involved; funding type and funding body; budget; start/end dates and duration; research outputs including publications and whether the results and data from the research are publicly available.

NetAge

Website: http://netage-project.org/

Description:

Ompendium of networks for longevity, age-related diseases and associated processes. Gives a wealth of information about the microRNA-regulated protein-protein interaction networks which are involved in complex processes of aging and age-related diseases, and ultimately in the determination of longevity.

By making these resources available online, it provides the scientific community with a solid platform for biogerontological research, and encourage greater participation in systems biology experiments. This, in turn, might shed more light on the public and private mechanisms of aging and could open a new avenue for inspiring the attempts on life span extension, a major goal of biogerontology.

National Institute on Aging
Population Studies Database

NIA - Population Studies Database

Website: https://nihlibrary.ors.nih.gov/nia/ps/niadb.asp

Description:

The NIA Population Studies Database brings together in one searchable location information about a range of population studies of interest to the research on aging community. We hope that our NIA researchers and grantees will find it useful for identifying completed and ongoing studies, possible collaborations for future studies, and data sources for new or extended analyses. Users should work directly with the study contacts listed whenever possible and with the NIA points of contact as needed to facilitate connections.

This is a simple text searching system with no Boolean operators or wild card functions. To maximize your search results, limit your search term to the minimum number of characters required. For example, entering osteoporosiswill yield only studies with the full word in the title or description, whereas osteo will yield study listings that include osteoporosis, osteoporotic, and osteoarthritis.

PDGene Database

Website: http://www.pdgene.org/my_meta

Description:

The PDGene Database aims to provide a comprehensive, unbiased and regularly updated collection of genetic association studies performed in Parkinson's disease. It includes summaries of key characteristics of the investigated populations, as well as genotype distributions in cases and controls. It provides continuously updated random-effects meta-analyses for polymorphisms with genotype data in at least three case-control samples.

PhenomicDB

Website: https://omictools.com/phenomicdb-tool

Description:

PhenomicDB is a multi-organism phenotype-genotype database including human, mouse, fruit fly, C.elegans, and other model organisms. The inclusion of gene indices (NCBI Gene) and orthologues from HomoloGene allows to compare phenotypes of a given gene over many organisms simultaneously.

PRIDE - PRoteomics IDEntifications database

Website: https://www.ebi.ac.uk/pride/archive/

Description:

The PRIDE PRoteomics IDEntifications (PRIDE) database is a centralized, standards compliant, public data repository for proteomics data, including protein and peptide identifications, post-translational modifications and supporting spectral evidence. PRIDE is a core member in the ProteomeXchange (PX) consortium, which provides a single point for submitting mass spectrometry based proteomics data to public-domain repositories. Datasets are submitted to PRIDE via ProteomeXchange and are handled by expert biocurators.

REPAIRtoire

Website: http://repairtoire.genesilico.pl/

Description:

REPAIRtoire contains components involved in the repair mechanisms of all kinds of cellular DNA lesions. In this version, repair pathways from H.sapiens, E.coli and S.cerevisiae are contained, together with their protein components and molecular events that trigger those pathways.

In the upcoming releases, they are expecting to provide more data for a multitude of prokaryotic and eukaryotic pathways, protein families involved, and diseases related to particular repair processes.

Shared Ageing Research Models (ShARM UK)

Website: https://www.mrc.ac.uk/research/facilities-and-resources-for-researchers/shared-ageing-research-models-sharm-uk/

Description:

UK scientists studying the biology of ageing can access ShARM - a resource to share tissues and make the most of every mouse bred for ageing research, reducing the numbers of animals required and saving money.

Because the genes and tissues of mice are very similar to our own, mouse models are important tools in ageing research. But housing and looking after mice over the long period it takes for them to reach old age is costly, which has a knock-on effect on the development of new projects. Furthermore, scientists will only use one or two tissues from these animals, with surplus tissues often being discarded. This has economic, scientific and ethical shortcomings.

Not-for-profit organisation Shared Ageing Research Models (ShARM UK), which is funded by Wellcome trust and supported by the MRC, combines web-based information systems with a physical tissue bank. A network of ageing mouse colonies across the UK will be linked up via a bank of flash-frozen surplus tissues available to the research community, allowing scientists to see rapidly what kind of tissue is available for research, and when.

An online collaborative environment (MiCEPACE) will also be set up to help scientists share knowledge, experience on care and welfare of ageing mice.
Dr Mark Prescott, Head of Research Management and Communications at the National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs), said: “ShARM has the potential to contribute to reduction and refinement, as well as the speed and cost-effectiveness of research into ageing. Banking and sharing of tissues will help make maximum use of each animal. Plus the online network can be used to share information on best practice in the care, use and welfare of aged mice.”

ShARM was established by scientists from the MRC-Arthritis Research UK Centre for Integrated Research into Musculoskeletal Ageingopens in new window and MRC Harwellopens in new window

SurvCurv

Website: https://www.ebi.ac.uk/thornton-srv/databases/SurvCurv/

Description:

SurvCurv is a database of manually curated and annotated survival data. The database offers various functions including plotting, mathematical models, and statistical tests, facilitating e.g. reanalysis and cross comparisons.

The Silver Book

Website: http://www.silverbook.org/

Description:

The Silver Book is an almanac of thousands of facts, statistics, graphs, and data from hundreds of agencies, organizations, and experts. It is a searchable database, produced and updated by the Alliance for Aging Research, that provides free and easy access to the latest information on the burden of chronic diseases that disproportionately impact older Americans, and the value of investing in medical research.

TMIG- 2DPAGE Database

Website: http://proteome.tmig.or.jp/2D/

Description:

Proteome database of cultured human cells.

Primary cultures of human-derived cell strains and permanent cell lines are valuable research resources with which various investigations into cell functions and pathological deviations are able to be performed avoiding human ethical problems. The characterization and profiling of the behavior of cells in different culture conditions by using the methods of proteomics might offer useful information in the biomedical researches of human cell physiology and pathology. The TMIG-2DPAGE Proteome Database is being developed for the proteomic analysis of molecular mechanisms of aging and age-dependent cell dysfunction.