Resource Summary Report

Generated by RRID on May 13, 2025

PhenomicDB

RRID:SCR_013051
Type: Tool

Proper Citation

PhenomicDB (RRID:SCR_013051)

Resource Information

URL: http://www.phenomicdb.de/

Proper Citation: PhenomicDB (RRID:SCR_013051)

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 orthologs (same gene in different organisms) from HomoloGene allows to compare phenotypes of a given gene over many organisms simultaneously. PhenomicDB contains data from publicly available primary databases: FlyBase, Flyrnai.org, WormBase, Phenobank, CYGD, MatDB, OMIM, MGI, ZFIN, SGD, DictyBase, NCBI Gene, and HomoloGene. We brought this wealth of data into a single integrated resource by coarse-grained semantic mapping of the phenotypic data fields, by including common gene indexes (NCBI Gene), and by the use of associated orthology relationships (HomoloGene). PhenomicDB is thought as a first step towards comparative phenomics and will improve the understanding of the gene functions by combining the knowledge about phenotypes from several organisms. It is not intended to compete with the much more dedicated primary source databases but tries to compensate its partial loss of depth by linking back to the primary sources. The basic functional concept of PhenomicDB is an integrated meta-search-engine for phenotypes. Users should be aware that comparison of genotypes or even phenotypes between organisms as different as yeast and man can have serious scientific hurdles. Nevertheless finding that the phenotype of a given mouse gene is described as ??similar to psoriasis?? and at the same time that the human ortholog has been described as a gene causing skin defects can lead to novelty and interesting hypotheses. Similarly, a gene involved in cancer in mammalian organisms could show a proliferation phenotype in a lower organism such as yeast and thus, give further insights to a researcher.

Abbreviations: PhenomicDB

Resource Type: data or information resource, database

Defining Citation: PMID:20562418

Keywords: phenotype, human, mouse, drosophila, caenorhabditis elegans, dictyostelium discoideum, yeast, zebrafish

Funding:

Resource Name: PhenomicDB

Resource ID: SCR_013051

Alternate IDs: nif-0000-03274

Record Creation Time: 20220129T080314+0000

Record Last Update: 20250507T060900+0000

Ratings and Alerts

No rating or validation information has been found for PhenomicDB.

No alerts have been found for PhenomicDB.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 10 mentions in open access literature.

Listed below are recent publications. The full list is available at RRID.

Dehghan Z, et al. (2021) Repurposing new drug candidates and identifying crucial molecules underlying PCOS Pathogenesis Based On Bioinformatics Analysis. Daru : journal of Faculty of Pharmacy, Tehran University of Medical Sciences, 29(2), 353.

Ramly B, et al. (2019) Protein-Protein Interaction Network Analysis Reveals Several Diseases Highly Associated with Polycystic Ovarian Syndrome. International journal of molecular sciences, 20(12).

Afiqah-Aleng N, et al. (2017) PCOSBase: a manually curated database of polycystic ovarian syndrome. Database : the journal of biological databases and curation, 2017.

Cobb JN, et al. (2013) Next-generation phenotyping: requirements and strategies for enhancing our understanding of genotype-phenotype relationships and its relevance to crop improvement. TAG. Theoretical and applied genetics. Theoretische und angewandte Genetik, 126(4), 867.

Alawieh A, et al. (2012) Systems biology, bioinformatics, and biomarkers in neuropsychiatry. Frontiers in neuroscience, 6, 187.

Smith CL, et al. (2012) The Mammalian Phenotype Ontology as a unifying standard for experimental and high-throughput phenotyping data. Mammalian genome : official journal of the International Mammalian Genome Society, 23(9-10), 653.

Sozzani R, et al. (2011) High-throughput phenotyping of multicellular organisms: finding the link between genotype and phenotype. Genome biology, 12(3), 219.

Manev H, et al. (2010) Benefits of neuropsychiatric phenomics: example of the 5-lipoxygenase-leptin-Alzheimer connection. Cardiovascular psychiatry and neurology, 2010, 838164.

Malone BM, et al. (2009) Integrating phenotype and gene expression data for predicting gene function. BMC bioinformatics, 10 Suppl 11(Suppl 11), S20.

Galperin MY, et al. (2005) The Molecular Biology Database Collection: 2005 update. Nucleic acids research, 33(Database issue), D5.