

TOTAL NUMBER OF INTEGRATED DATA SOURCES: 200+

Euretos provides an AI platform used by pre-clinical researchers for in-silico discovery & validation of targets and biomarkers. World leading pharma, biotech and academic institutions use it to accelerate their multi omics research. Based on the latest big data analytics technologies, researchers discover and evaluate how molecular mechanisms influence cell and tissue functions, and in turn mediate phenotypes and disease pathology.



The platform integrates and interconnects three types of data sources:

- **Life Sciences databases** These are sources that life scientists directly consult some of which are widely known such as Pubmed, Uniprot, Chembl and many other biological sources.
- Textual & publication sources These are text based sources such as Pubmed, patent data and clinical records
- **Semantic and Ontological Sources** These are sources like ontologies, structured vocabularies and thesauri that are often not consulted directly by life scientists but play a crucial role in classifying life sciences data and recognizing individual concepts.

Below is <u>a selection</u> from these sources. A complete list of all semantic, ontological and life sciences sources is available to our customers on request where we provide full disclosure.

| Source | Source |
|---------------------------|---|
| АРВ | Australian Phenome Bank |
| Aracyc | Pathways in Arabidopsis Thaliana |
| ARC | Animal Resources Centre |
| Baseline Expression Atlas | RNA expression in healthy tissue |
| BIND | Molecular interactions |
| BindingDB | Biochemical interaction data for small molecules and protein targets |
| Biogrid | Protein-protein interactions and protein- small molecule interactions |
| Biomodels | Computational models of biological processes |
| BioPlex | Protein interaction networks |
| CARD | Centre for Animal Resources and Development |
| CellLine | Curated cell line overview |
| Chebi | Vocabulary for chemical entities of biological interest |



| ChEMBL | Compounds, targets and biochemical assays |
|--------------------------------------|--|
| Clinical Measurement Ontology | |
| Clinical Trials | Clinical trials |
| Clinvar | Clinical genomic variation |
| CMMR | Canadian Mouse Mutant Repository |
| Comparative Toxicogenomics Database | Gene - phenotype - chemical interactions |
| ConceptWiki | Vocabulary |
| CORUM | Protein complexes |
| CROP | Genetic annotations and diversity of traits and environmental treatments for plants |
| DECIPHER | Clinical phenotypic - genotypic data |
| Differential Expression Atlas | Gene expression patterns in different biological conditions |
| DIP | Protein interactions |
| DisGeNet | Gene - disease associations |
| Drugbank | Chemical, pharmacological and pharmaceutical information for approved and experimental drugs and protein therapies |
| EMMA | European Mouse Mutant Archive |
| Ensembl Plant Variation (Gramene) | Genetic variation and phenotype association for plants |
| Enzyme | Enzyme characterization |
| Experimental Factor ontology | Ontology for variables in biological experiments |
| Fantom 5 | CAGE expression data in healthy tissue |
| Foodb | Database for food and ingredients |
| Gene Ontology | Molecular functions, biological processes and cellular components |
| GTEx | RNA-seq Expression data in healthy tissue |
| Guide to PHARMACOLOGY | Quantitative information on drug targets and the prescription medicines and experimental drugs that act on them |



| GWAS | Curated resource of SNP-trait associations |
|---|--|
| HGNC | Nomenclature for human genes |
| HPRD | Protein interactions and pathways |
| Human Metabolome database | Small molecule metabolites |
| Human Phenotype Ontology | Phenotypic abnormalities encountered in human disease |
| Human Phenotype Ontology - Pubmed | Datamining results for Phenotype-Disease associations |
| Human Protein Atlas | RNAseq and protein abundance measurement in healthy tissues and cancer tissues; Gene classifications |
| Human Protein Map | Protein abundance measurements in healthy tissues |
| Humancyc | Molecular pathways |
| ICD10 | Disease classification |
| INOH | Manually curated pathway database |
| Intact | Molecular interactions |
| IntAct Complex | Protein complexes |
| International Mouse Strain Resource (IMSR) | Mouse model resources |
| JAX | Strain database |
| КОМР | Knockout Mouse Project |
| MeSH | Vocabulary |
| miRTarBase | MicroRNA target interactions |
| MMRRC | Mutant Mouse Regional Resource Center |
| Monarch | Gene - phenotype associations from model organisms |
| Monarch Cross Species Phenotype Ontology | Ontology |
| Mouse Genome Informatics | MGI is the international database resource for the laboratory mouse, providing integrated genetic, genomic, and biological data to facilitate the study of human health and disease. |



| Mouse Phenotype Ontology | Ontology |
|--|--|
| MRC Harwell | Harwell Science and Innovation Campus |
| | · |
| The Molecular Signatures Database (MSigDB) | Collection of annotated gene sets |
| MUGEN | Mugen Mouse Database |
| National Cancer Institute | Vocabulary for cancers, agents and related substances |
| NCBI gene annotation | Gene information and annotation |
| NCBI gene orthologues | Gene orthologues |
| NCBI gene sequence | Reference sequences |
| NCI PID | Molecular pathways |
| NCIMR | National Cancer Institute at Frederick |
| Netpath | Manually curated pathway database |
| NIG | National Institute of Genetics (Japan) |
| OMA | Database for the inference of orthologs among complete genomes |
| OMIM | Genetic phenotypes |
| Orphanet | Rare diseases and orphan drugs |
| Panther | Protein classifications |
| Pathway ontology | Classic metabolic, regulatory, signaling, drug and disease pathways |
| Phosphosite Plus | Protein post-translational modifications |
| Phytozome | Gene orthologs in plants |
| Plant environment ontology | Vocabulary of plant environmental conditions and experimental treatments |
| Plant ontology | Plant anatomy, morphology and stages of development for all plants |
| Pubmed | Scientific literature; abstracts |
| RBRC | Riken BioResource Center |



| Reactome | Molecular pathways |
|--------------------------------|--|
| Recon X | Human metabolism |
| RxNorm | Drugs vocabulary |
| Semantic Medline | Text mining results of Pubmed abstracts |
| SGD | Genetic annotations for Saccharomyces cerevisiae |
| SMPDB | Small molecule pathway database |
| SNOMED CT | Clinical health vocabulary |
| String | Protein interactions |
| TAC | Taconic Biosciences |
| TAIR | Genetic and molecular biology for model organism Arabidopsis Thaliana |
| The Cancer Genome Atlas (TCGA) | RNA-seq Expression data in cancer patients |
| TIGM | Texas A&M Institute of Genome Medicine |
| Trait ontology | Vocabulary of plant traits |
| Transfac Public | Gene regulation |
| Uberon | Cross species anatomy ontology |
| UMLS | Biomedical vocabulary |
| Uniprot | Proteomics |
| Vertebrate trait ontology | Controlled vocabulary for the description of traits |
| Wikipathways | Manually curated pathway database |