

APPENDIX

APPENDIX A: GENETIC AND GENOMIC ONLINE RESOURCES

Compilation of Genetic and Genomic Online Resources

- **OMIM:** OMIM: Online Mendelian Inheritance in Man (<https://omim.org/>) – A comprehensive database of human genes and genetic phenotypes, focusing on the relationship between genotype and phenotype.
- **The Human Protein Atlas:** The Human Protein Atlas (<https://www.proteinatlas.org/>)– Provides detailed information on the tissue and cell distribution of proteins in the human body.
- **GeneCards:** GeneCards (<https://www.genecards.org/>)– An integrated database offering comprehensive information on all annotated and predicted human genes.
- **ClinGen:** ClinGen (<https://www.clinicalgenome.org/>)– Defines the clinical relevance of genes and variants for use in precision medicine and research.
- **ClinVar:** ClinVar (<https://www.ncbi.nlm.nih.gov/clinvar/>)– Archives and aggregates information about relationships among genomic variation and human health.
- **GeneReviews:** GeneReviews (<https://www.ncbi.nlm.nih.gov/books/NBK1116/>)– Provides expert-authored, peer-reviewed disease descriptions focusing on diagnosis, management, and genetic counseling.
- **NIH Gene:** NIH Gene (<https://www.ncbi.nlm.nih.gov/genbank/>)– A searchable database of genes, focusing on genomes that have been completely sequenced.
- **Human Disease Genes:** Human Disease Genes (<https://humandiseasesgenes.nl/>)– Offers professional information about genes and their clinical consequences.
- **ExpressAnalyst:** ExpressAnalyst (<https://expressanalyst.ca/>) – A web-based platform for gene expression data analysis.
- **Reactome:** Reactome (<https://reactome.org/>)– A free, curated database of biological pathways.
- **Comparative Toxicogenomics Database:** Comparative Toxicogenomics Database (<https://ctdbase.org/about/>) – Provides information on the effects of environmental chemicals on human health.
- **National Comprehensive Cancer Network:** NCCN (<https://www.nccn.org/>)– Provides guidelines and resources for cancer care.
- **National Library of Medicine (Gene):** NLM Gene (<https://www.ncbi.nlm.nih.gov/>) – Offers access to a wide range of biomedical and genomic information.

- **The Expression Atlas:** The Expression Atlas (<https://www.ebi.ac.uk/gxa/home>) – Provides information on gene expression patterns under different biological conditions.
- **Ensembl:** Ensembl (<https://useast.ensembl.org/index.html>)– A genome browser for vertebrate genomes.
- **Gene Omnibus:** Gene Omnibus (<https://www.ncbi.nlm.nih.gov/genbank/>)– A repository for gene expression data.
- **NCBI Genome Data Viewer:** NCBI Genome Data Viewer (<https://www.ncbi.nlm.nih.gov/genbank/>)– A genome browser for visualizing genomic data.
- **UCSC Genome Browser:** UCSC Genome Browser (<https://genome.ucsc.edu/cgi-bin/hgGateway>)– A tool for exploring the human genome.
- **SFARI Gene:** SFARI Gene (<https://gene.sfari.org/>) – A database for autism research.
- **PhenX Toolkit:** PhenX Toolkit (<https://www.phenxtoolkit.org/>) – A repository of standardized measurement protocols.
- **Gabriella Miller Kids First Data Resource Center:** Kids First Data Resource Center (<https://d3b.center/kidsfirst/>) – Provides biospecimens and genetic data related to pediatric cancer and structural birth defects.
- **Health and Retirement Study:** Health and Retirement Study (<https://hrs.isr.umich.edu/about>) – A longitudinal study of health and economic conditions in older adults.
- **MetaboAnalyst:** MetaboAnalyst (<https://www.metaboanalyst.ca/>) – A tool for metabolomics data analysis.
- **Plink:** Plink (<https://zzz.bwh.harvard.edu/plink/>) – A toolset for whole-genome association analysis.
- **Plink 1.9 Update:** Plink 1.9 Update (<https://www.cog-genomics.org/plink/>) – An updated version of the Plink toolset.
- **IGV Integrative Genomics Viewer:** IGV (<https://software.broadinstitute.org/software/igv/>) – A tool for interactive exploration of large genomic datasets.
- **GeneMania:** GeneMania (<https://genemania.org/>) – A tool for predicting gene function and gene-gene interactions.
- **Cytoscape:** Cytoscape (<https://cytoscape.org/>) – A software platform for visualizing complex networks.
- **OpenEpi.com:** OpenEpi.com (https://www.openepi.com/Menu/OE_Menu.htm) – Provides statistical calculators for epidemiology.
- **Coriell Institute:** Coriell Institute – A biobank for human cells and DNA.
- **NHANES:** NHANES – A program of studies designed to assess the health and nutritional status of adults and children in the United States.
- **Pharmacogenomics:**
 - CPIC (<https://cpicpgx.org/guidelines/>) – Provides guidelines for pharmacogenomics.
 - PharmGKB (<https://www.pharmgkb.org/>) – A resource for pharmacogenomics knowledge.
 - PharmVar (<https://www.pharmvar.org/>) – A database of pharmacogenetic variants.

- **Cancer/Control Data Sets:**

- GTEx (<https://gtexportal.org/home/>) – Provides data on gene expression and regulation in multiple human tissues.
- cBioPortal (<https://www.cbioportal.org/>) – A resource for exploring cancer genomics data.

- **miRNA:**

- miRDB – A database for miRNA target prediction.
- miRBase – A database of published miRNA sequences and annotations.
- miRNet – A tool for miRNA network analysis.
- TargetScan – A tool for predicting biological targets of miRNAs.

UPDATE & CHANGE LOG

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- First publication