



Entrez Tools and Resources

Getting Started

To search from each of the databases listed below, simply go to the Entrez cross-database search page at www.ncbi.nlm.nih.gov/entrez and click on the database of interest. Once the database home page is in your browser, enter your search string in the query box and click 'Go'.

Description

Sample Searches

OMIM — Online Mendelian Inheritance in Man

OMIM is a curated set of human phenotypes with links to genetic loci, and serves as a catalog of those human sequence polymorphisms that have known clinical consequences. All phenotypic descriptions are linked to the basic literature, relevant genes, sequences, SNPs, expression studies, and much more.

www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=OMIM

Start your search here if you want to learn about a genetic disorder

Example query: **muenke syndrome[title]**

Gene — The Collection of Annotated Genes

Gene is a curated set of gene loci currently annotated on over 2,800 genomes. Each gene record is an electronic review article on that gene and is linked to associated records, including NCBI Reference Sequences (genomic, mRNA, protein), phenotypes in OMIM, SNPs, expression studies, literature abstracts, the Map Viewer, and other analysis tools.

www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=gene

Start your search here if you want to learn about a gene locus

Example query: **fgfr3[gene name] AND human[orgn]**

GEO Profiles and Datasets — The Collection of Molecular Expression Profiles and Expression Datasets

These two Entrez databases are collections of expression studies, including microarray, SAGE, and MPSS studies. GEO Profiles contains individual molecular profiles corresponding to a single spot on an array, while GEO Datasets contains curated sets of related experiments. GEO contains several analysis tools, and is linked to associated data including genes, sequences, SNPs, literature, and OMIM phenotypes.

www.ncbi.nlm.nih.gov/entrez/query.fcgi?DB=geo

Start your search here if you want to find gene expression studies

Example query: **fgfr3[gene description] AND human[orgn] AND fibroblasts[sample source]**

SNP — The Collection of Sequence Polymorphisms

SNP is a collection of over 18 million nucleotide sequence polymorphisms observed by experimentalists. SNP is not limited to single polymorphisms, but also includes microsatellites, insertions and deletions, and multiple polymorphisms among others. SNP provides graphical views of all SNPs known on a gene locus, and provides detailed displays of genotype data, including Hardy-Weinberg statistics and pedigree charts.

www.ncbi.nlm.nih.gov/SNP

Start your search here if you want to find a specific kind of SNP

Example query: `fgr3[gene name] AND human[orgn] AND coding nonsynon[func]`

PubChem Substance — The Collection of Submitted Chemical Substances**PubChem Compound — The Nonredundant Collection of Chemicals****PubChem Bioassay — The Collection of Biological Activity Assays**

PubChem is a collection of both primary and derivative data on small molecules. PubChem Substance contains over 850,000 raw records submitted to NCBI by public databases, which may or may not be well defined chemical entities. PubChem Compound contains standardized records derived from PubChem Substance that are well defined chemicals and for which a variety of chemical properties can be calculated. PubChem Bioassay contains biological assay data from records in PubChem Substance, and contains interactive tools for displaying these data.

pubchem.ncbi.nlm.nih.gov/search

Start your search here if you want to find a chemical

Example query: `teratogens[PharmAction] AND c[element]`

Additional Resources

NCBI Announce — NCBI has created a mailing list for announcing NCBI developments and updates. This list is intended for distribution of messages announcing updates, new tools and features, and to give advanced notice about upcoming changes in NCBI resources.

If you would like to subscribe to this list please go to www.ncbi.nlm.nih.gov/mailman/listinfo/ncbi-announce

Course materials — The course materials can be viewed or downloaded from ftp.ncbi.nih.gov/pub/sayers/Teratology

NCBI Handbook — The NCBI Handbook can be viewed or downloaded from www.ncbi.nlm.nih.gov/books/bv.fcgi?call=bv.View..ShowTOC&rid=handbook.TOC&depth=2

Education — The NCBI Education page, a complete listing of current and upcoming courses about NCBI tools and resources, is located at www.ncbi.nlm.nih.gov/Education

NCBI News — The current edition of the NCBI News is available at www.ncbi.nlm.nih.gov/About/newsletter.html

Questions about NCBI tools and resources can be sent to the NCBI Service Desk at info@ncbi.nlm.nih.gov

