

## **Pharmacy Drug Databases:**

### **DrugBank**

The DrugBank database is a comprehensive, freely accessible, online database containing information on drugs and drug targets. As both a bioinformatics and a cheminformatics resource, DrugBank combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

DrugBank is widely used by the drug industry, medicinal chemists, pharmacists, physicians, students and the general public. Its extensive drug and drug-target data has enabled the discovery and repurposing of a number of existing drugs to treat rare and newly identified illnesses.

The latest release of the database (version 5.0) contains 9591 drug entries including 2037 FDA-approved small molecule drugs, 241 FDA-approved biotech (protein/peptide) drugs, 96 nutraceuticals and over 6000 experimental drugs. Additionally, 4270 non-redundant protein (i.e. drug target/enzyme/transporter/carrier) sequences are linked to these drug entries.

### **Comparative Toxicogenomics Database (CTD)**

The Comparative Toxicogenomics Database (CTD) is a public website maintained by the Department of Biological Sciences at North Carolina State University; it is a research tool that curates scientific data describing relationships between chemicals/drugs, genes/proteins, diseases, taxa, phenotypes, GO annotations, pathways, and interaction modules.

CTD is a unique resource where biocurators[6][7] read the scientific literature and manually curate four types of core data:

1. Chemical-gene interactions
2. Chemical-disease associations
3. Gene-disease associations
4. Chemical-phenotype associations

## **Drugs.com**

It is an online pharmaceutical encyclopaedia that provides drug information for consumers and healthcare professionals, primarily in the United States.

Drugs.com is the largest, most widely visited, independent medicine information website available on the Internet. Our aim is to be the Internet's most trusted resource for drug and related health information. We will achieve this aim by presenting independent, objective, comprehensive and up-to-date information in a clear and concise format for both consumers and healthcare professionals.

## **The Drugs.com Database**

The Drugs.com Drug Information Database is powered by four independent leading medical-information suppliers: Wolters Kluwer Health, American Society of Health-System Pharmacists, Cerner Multum and IBM Watson Micromedex. Individual drug (or drug-class) content compiled by these sources is peer reviewed and delivered by Drugs.com.

Drugs.com also publishes health content from other sources such as;

## **Harvard Health Publications**

Harvard Health Publications is the publishing division of the Harvard Medical School of Harvard University and draws on the expertise of the 9,000 faculty physicians to provide authoritative and trustworthy consumer health information.

### **Mayo Clinic**

Mayo Clinic articles provide detailed information about medical conditions and diseases. More than 3,300 physicians, scientists and researchers from Mayo Clinic share their expertise to empower you. Content includes definitions, symptoms, causes, risk factors, complications, tests and diagnosis, treatments and drugs, prevention and support options.

### **Animalytics**

Animalytics is in the business of building, managing, maintaining and marketing data and databases in the animal health, crop chemical and human health industries in the USA and Canada.

### **MEDLINE**

(Medical Literature Analysis and Retrieval System Online, or MEDLARS Online) is a bibliographic database of life sciences and biomedical information. It includes bibliographic information for articles from academic journals covering medicine, nursing, pharmacy, dentistry, veterinary medicine, and health care. MEDLINE also covers much of the literature in biology and biochemistry, as well as fields such as molecular evolution.

Compiled by the United States National Library of Medicine (NLM), MEDLINE is freely available on the Internet and searchable via PubMed and NLM's National Center for Biotechnology Information's Entrez system.

## **Micromedex**

For more than 45 years, Micromedex has been one of the largest online reference databases about drug information, toxicology, diseases, acute care and alternative medicine. Delivered through a web portal with IP recognition, the comprehensive resource provides healthcare professionals with clinical decision support for informed treatment decisions. Micromedex facilitates decision making in the areas of drug information, disease and condition management, toxicology and alternative medicine. It even addresses specific questions, such as IV compatibility.

### **Micromedex evidence-based information contains:**

- Drug dosing and medication management for all FDA-approved medications and select drugs approved by EMA and Health Canada
- Detailed information about drug interactions and IV compatibility
- Treatment protocols and checklists for acute and chronic disease management
- Lab information to help choose appropriate tests and interpret results
- Alternative medicine information on herbal and alternative therapies
- Neonatal and Pediatric drug information for age-and indication-specific considerations
- Detailed protocols for toxicology and exposure management

## **The Medical Letter, Inc.**

The Medical Letter, Inc. is a non-profit organization that publishes critical appraisals of new prescription drugs and comparative reviews of drugs for common diseases in its newsletter, The Medical Letter on Drugs and Therapeutics.

The Medical Letter, Inc. is committed to providing objective, practical, and timely information on drugs and treatments of common diseases to help our readers make the best decisions for their patients—without the influence of the pharmaceutical industry.

Many of our readers know that pharmaceutical companies and their representatives often exaggerate the therapeutic effects and understate the adverse effects of their products, but busy practitioners have neither the time nor the resources to check the accuracy of the manufacturers' claims. Our publication is intended specifically to meet the needs of busy healthcare professionals who want unbiased, reliable, and timely drug information. Our editorial process is designed to ensure that the information we provide represents an unbiased consensus of medical experts.

- If a new prescription drug offers genuine advantages over older drugs, we say so.
- If a new prescription drug offers no advantage, if its effectiveness is limited, or if it is too toxic or too expensive to justify its use, we say so.
- If new drug information changes the status of previously reviewed drugs, we publish follow-up reports.