◎<参考书目>

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※<参考书目>

书目名称	作者	出版社	出版时间
植物基因工程	王关林　方宏筠	科学出版社	2002
基因工程原理与应用	陈宏	中国农业出版社	2004
基因工程原理	吴乃虎	科学出版社	1998
Plant Molecular Biology	Clark M.S	施普林格出版社	
植物基因与分子操作	顾红雅	北京大学出版社	2003

※<参考网站>

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一、核酸及其相关数据库

1、核酸序列数据库

- BIOSINO 我国的核酸序列公共数据库
- EMBL - EMBL Nucleotide sequence database (EBI) *
- GenBank - GenBank Nucleotide Sequence database (NCBI) *
- DDBJ - DNA Data Bank of Japan *
- dbEST - Database of Expressed Sequence Tags (NCBI)
- dbSTS - Database of Sequence Tagged Sites (NCBI)

2、基因组及相关数据库 Genomic Databases

- GenomeWeb(HGMP) - A catalogue of useful Web sites for Genomics with a set of collections of genome databases
- GSDB - Genome Sequence database (NCGR)
- GOLD - Genomes On-line db
- 一些数据库的直接链接
- DOGS - Database of Genome Sizes
- Genomics web site (John Wiley & Sons Ltd) (The Genomics website at Wiley is a new and DYNAMIC resource for the genomics community, offering FREE special feature articles and new information EACH MONTH.)
- HUGO - HUman Genome Organization

3、核酸三维结构数据库

- [NDB](#) - Nucleic Acid Databank (3D structures)
- [BNASDB](#) - Nucleic acid structure db from University of Pune

4、转基因数据库（Transgenics）

- [Cre Transgenic Database](#) - Cre transgenic mouse lines
- [Transgenic/Targeted Mutation Database](#) - Information on transgenic animals and targeted mutations

5、其他

- [AsDb](#) - Aberrant Splicing db
- [ACUTS](#) - Ancient conserved untranslated DNA sequences db
- [Codon Usage Db](#) - The frequency of codon use in each organism is made searchable through this World Wide Web site.
- [EPD](#) - Eukaryotic Promoter db
- [HOVERGEN](#) - Homologous Vertebrate Genes db
- [IMGT](#) - ImMunoGeneTics db [Mirror at [EBI](#)]
- [ISIS](#) - Intron Sequence and Information System
- [RDP](#) - Ribosomal db Project
- [gRNAs db](#) - Guide RNA db
- [PLACE](#) - Plant cis-acting regulatory DNA elements db
- [PlantCARE](#) - Plant cis-acting regulatory DNA elements db
- [sRNA db](#) - Small RNA db
- [ssu rRNA](#) - Small ribosomal subunit db
- [lsu rRNA](#) - Large ribosomal subunit db
- [5S rRNA](#) - 5S ribosomal RNA db
- [tmRNA Website](#)
- [tmRDB](#) - tmRNA dB
- [tRNA](#) - tRNA compilation from the University of Bayreuth
- [uRNADB](#) - uRNA db
- [RNA editing](#) - RNA editing site
- [RNAmod db](#) - RNA modification db
- [TelDB](#) - Multimedia Telomere Resource
- [TRADAT](#) - TRAnscription Databases and Analysis Tools
- [Subviral RNA db](#) - Small circular RNAs db (viroid and viroid-like) [MPDB](#) - Molecular probe db
- [OPD](#) - Oligonucleotide probe db
- [VectorDB](#) - Vector sequence db

二、基因表达数据库

- [ASDB](#) - Protein products and expression patterns of alternatively-spliced genes
- [Axeldb](#) - Gene expression in Xenopus
- [BodyMap](#) - Human and mouse gene expression data
- [EpoDB](#) - Genes expressed in vertebrate RBC
- [FlyView](#) - Drosophila development and genetics
- [Gene Expression Database (GXD)](#) - Mouse gene expression and genomics
- [Kidney Development Database](#) - Kidney development and gene expression
- [MAGEST](#) - Ascidian (Halocynthia roretzi) gene expression patterns

- [Mouse Atlas and Gene Expression Database](#) - Spatially-mapped gene expression data
- [PEDB](#) - Normal and aberrant prostate gene expression
- [Tooth Development Database](#) - Gene expression in dental tissue
- [TRIPLES](#) - TRansposon-Insertion Phenotypes, Localization and Expression in Saccharomyces

三、蛋白质及其相关数据库

1、蛋白质序列和相关数据库

- [SWISS-PROT](#) - SWISS-PROT annotated protein sequence db
- [PIR-international](#) -The Protein Information Resource (protein sequence)
- [MIPS](#) - Martinsried institute for protein sequence and homology data and yeast genome information
- [PROSITE](#) - PROSITE dictionary of protein sites and patterns
- [InterPro](#) - Integrated Resources of Proteins Domains and Functional Sites
- [BLOCKS](#) - BLOCKS db
- [DOMO](#) - Protein domain db (Automatically generated)
- [Pfam](#) - Protein families db (HMM derived) [Mirror at [Sanger](#)]
- [PRINTS](#) - Protein Motif fingerprint db
- [ProDom](#) - Protein domain db (Automatically generated)
- [PROTOMAP](#) - An automatic hierarchical classification of SWISS-PROT proteins
- [SBASE](#) - SBASE domain db (Protein domain sequence library)
- [SMART](#) - Protein signalling and extracellular domain patterns (Simple Modular Architecture Research Tool)
- [ProClass](#) - Protein sequence alignments and curation of protein families
- [Kabat](#) - Kabat db of protein of immunological interest
- [PMD](#) - Protein Mutant db

2、蛋白质三维结构和相关数据库

- [PDB](#) - Protein Data Bank [Mirrors in [EBI](#)]
- [BioMagResBank](#) - Repository for data on proteins, peptides, and nucleic acids from NMR spectroscopy
- [SWISS-MODEL Repository](#) - Automatically generated protein models db
- [ModBase](#) - Db of comparative protein structure models
- [CATH](#) - UCL BSM structural classification of proteins
- [SCOP](#) - Structural classification of proteins [Mirror at [USA](#) | [Israel](#) | [Singapore](#) | [Australia](#)]
- [Mol_R_Us](#) - Molecules R Us, browser for PDB
- [BMM Domain Server](#) - Biomolecular Modelling Laboratory (ICRF) protein domain server
- [PRESAGE](#) - Collaborative resource for structural genomics
- [ReLiBase](#) - Receptor/ligand complexes db [Mirror in [USA](#)]
- [TOPS](#) - Protein topology atlas
- [CCDC](#) - Cambridge Crystallographic Data Center (Cambridge Stuctural Db (CSD))
- [HSSP](#) - Homology-derived secondary structure of proteins db
- [SWISS-3DIMAGE](#) - 3D images of proteins and other biological macromolecules
- [BioImage](#) - Biological image db (contains imaging data on macromolecules)

3、蛋白质二维凝胶电泳数据库

- [WORLD-2DPAGE](#) - A complete index of 2D-PAGE db and servers
- [Phoretix links](#) - Phoretix page of links to 2D gel db

4、信号传导及蛋白质-蛋白质相互作用相关数据库

- [DIP](#) - Db of Interacting Proteins
- [INTERACT](#) - Protein-Protein interaction db
- [ProNet](#) - Protein-Protein interaction db
- [CANSITE](#) - Signal Transduction's Web
- [SPAD](#) - Signaling pathway db
- [CSNDB](#) - Cell Signaling Networks db

5、DNA和蛋白质相互作用数据库

- [DPInteract](#) - DNA-Proteins interactions db

四、特定基因或蛋白质的数据库

- [AAA](#) - AAA family of ATPases server
- [Acetylcholinesterases](#)
- [ALDH](#) - Aldehyde dehydrogenase gene superfamily db
- [Aminoacyl-tRNA synthetases in SWISS-PROT](#) - List of aminoacyl-tRNA synthetases in SWISS-PROT
- [AARSDB](#) - Aminoacyl-tRNA synthetases db
- [Allergens in SWISS-PROT](#) - Nomenclature and index of allergens in SWISS-PROT
- [AMSDb](#) - Antimicrobial sequences db
- [Antibody resource page](#) - Links to antibody related Web resources
- [Australian venom and toxin db](#)
- [Bacillus thuringiensis toxin specificity db](#)
- [TFII](#) - Basal transcription factors
- [Blood group antigens in SWISS-PROT](#)
- [BCGD](#) - Breast cancer genes db from MBCR
- [BRENDA](#) - Db of enzyme functional data
- [EF-hand CaBP](#) - EF-hand calcium-binding proteins db
- [CAZy](#) - Carbohydrate-Active enZYmes Web site
- [CBS domain](#) - Cystathionine Beta Synthase domain WWW page
- [CD antigens in SWISS-PROT](#) - Nomenclature for surface proteins of human leucocytes (CD)
- [CD antigens in PROW](#) - Database on information about CD antigens
- [Chaperonin](#) - Information on GroEL and GroES chaperonins
- [Conotoxins](#) - Information on conotoxins from a Web site on cone shells
- [Cytokines Web](#) - Structure and function of cytokines and their receptors
- [COPE](#) - Cytokines On-line Pathfinder Encyclopedia [Mirror in [Israel](#)]
- [dbCFC](#) - Cytokine family cDNA db
- [R&D Systems' Cytokine Source Book](#)
- [DExH/D protein family db](#)
- [ENZYME](#) - Enzymes nomenclature db
- [Worthington enzyme manual](#)
- [Eph](#) - Eph receptor tyrosine kinases and their ligands (ephrins) resource
- [EpoDB](#) - Erythropoiesis gene expression db (Epo GED)
- [ESTHER](#) - Esterases and alpha/beta hydrolase enzymes

- [Expansins web site](#)
- [Modules](#) - Extracellular proteins modules (domains)
- [FADPNR](#) - FAD-dependent pyridine nucleotide oxidoreductases
- [Flavodoxins](#)
- [FlyNets](#) - Db of molecular interactions in Drosophila melanogaster
- [FYVE finger domain](#)
- [GABAagent](#) - GABA receptors WWW site
- [Globin](#) - Globin gene server
- [Glucoamylases](#)
- [Glycosyl hydrolases in SWISS-PROT](#) - Nomenclature and index of glycosyl hydrolases in SWISS-PROT
- [7TM in SWISS-PROT](#) - List of G protein coupled receptors in SWISS-PROT
- [GCRDb](#) - G protein-coupled receptor db
- [GPCRDB](#) - G protein-coupled receptor db (7TM) at EMBL
- [ORDB](#) - Olfactory receptor db
- [GRAP](#) - G protein coupled receptors family A mutants db
- [GRR](#) - Glucocorticoid receptor resource
- [Glycosyltransferases](#) - A guide to cloned glycosyltransferases
- [GnRH](#) - Gonadotropin-releasing hormones (GnRH) family
- [GyrB](#) - GyrB protein
- [Yeast RNA helicases](#)
- [Histone](#) - Histones db
- [HIVdb](#) - HIV protease db
- [HotMolecBase](#) - Molecules (mainly proteins) that are promising targets for medical applications
- [Homeobox](#) - Homeobox domain proteins resource
- [HOX-Pro](#) - Homeobox genes db
- [Hox proteins in SWISS-PROT](#) - Vertebrate homeotic Hox proteins: nomenclature and index of SWISS-PROT entries
- [Labial](#) - Homeobox genes, labial family
- [HSP100](#) - HSP100/ClpAB family of chaperones
- [InBase](#) - Inteins db from the New England Biolabs
- [Integrins](#)
- [ICN](#) - The Ion Channel Network
- [KEGG](#) - Kyoto Encyclopedia of Genes and Genomes
- [Kinesin](#) - Kinesin motor proteins
- [Klotho](#) - Biochemical compounds declarative db
- [LGIC](#) - Ligand Gated Ion Channel subunit db
- [LED](#) - Lipase Engineering Database
- [MDB](#) - Metalloprotein Site Database and Browser
- [Metallothioneins in SWISS-PROT](#) - Nomenclature and index of metallothioneins in SWISS-PROT
- [MT](#) - Metallothioneins
- [MHCPEP](#) - MHC binding peptides db
- [SYFPEITHI](#) - MHC ligands and peptide motifs db
- [Mitochondrial carriers pages from Nelson's lab](#)
- [MitoPick](#) - Mitochondrial NADH-ubiquinone reductase (complex I) web site
- [MRR](#) - Mineralocorticoid receptor resource

- [Mutator](#) - Transposases, Mutator family
- [MutBase](#) - Mutation spectra db (Db on mutants of several bacterial and mammalian genes)
- [MutS](#) - MutS family
- [Neurotrophic factors](#)
- [NucleaRDB](#) - Federated db on nuclear receptors
- [P450 pages from Nelson's lab](#)
- [P450](#) - Directory of P450-containing systems
- [IARC p53 db](#) - IARC db of somatic p53 mutations
- [PDZ domain](#) - PDH/DHR domain WWW page
- [PDE](#) - Phosphodiesterases
- [Peroxidases](#)
- [Plant Peroxidases](#)
- [Peptidases in SWISS-PROT](#) - Nomenclature and index of peptidases in SWISS-PROT
- [MEROPS](#) - Peptidase db
- [Prolysis](#) - Proteases and inhibitors server
- [Protein Degradation Resource](#)
- [PLACE](#) - Plant cis-acting regulatory DNA elements db
- [PlantCARE](#) - Plant cis-acting regulatory DNA elements db
- [PKR](#) - Protein Kinase Resource
- [PatBase](#) - P-type ATPase db
- [PPAR](#) - Peroxisome Proliferator-Activated Receptor resource
- [PPDB](#) - Phosphoprotein db
- [Proteoglycans](#)
- [Phytochromes](#) - Computer analysis of phytochrome sequences
- [RecA](#) - RecA protein
- [REBASE](#) - Restriction enzymes and methylases db
- [Restriction enzymes/methylases in SWISS-PROT](#) - List of restriction enzymes and methylases in SWISS-PROT
- [Ribosomal proteins in SWISS-PROT](#) - Families and index of ribosomal proteins in SWISS-PROT
- [Ribosomal proteins](#) - Analysis of R proteins by Nikos Kyrpides
- [RNase P](#) - Ribonuclease P db
- [SRPDB](#) - Signal Recognition Particle db
- [SNF2](#) - SNF2 family
- [TRR](#) - Thyroid hormone receptors resource
- [Topoisomerases](#) - Type I and II topoisomerases
- [TRANSFAC](#) - Transcription factors db
- [TRANSPATH](#) - Signal Transduction Browser
- [Transport Classification System](#) - from Milton Saier
- [UDP Glucuronosyltransferases](#)
- [V BASE](#) - Directory of human V gene sequences (Immunoglobulin germline variable region)
- [VDRR](#) - Vitamin D receptor resource
- [WD-repeat](#) - WD-repeat proteins family
- [WIT](#) - 'What is There' metabolic models db
- [WormPep](#) - C.elegans proteins db

- [YTPdb](#) - Yeast Transport Protein db

五、蛋白质翻译后修饰相关数据库

- [O-GlycBase](#) - O-glycosylated proteins db
- [PhosphoBase](#) - Phosphorylation sites db
- [RESID](#) - Db of Amino Acid Modifications

六、人类基因突变及疾病相关数据库

- [HMGD](#) - Human Gene Mutation db
- [SVD](#) - Sequence variation db
- [HGBASE](#) - Human Genic Bi-Allelic Sequences db
- [The SNP consortium](#)
- [dbSNP](#) - Human single nucleotide polymorphism (SNP) db
- [List of mutation databases from OMIM](#)
- [List of mutation databases from IMT (Finland)](#)
- [ADB](#) - Albinism db (Mutations in human genes causing albinism)
- [Alpha-glucosidase](#) - Information about human acid alpha-glucosidase (GSD-II)
- [AR mutations](#) - Human androgen receptor mutation db
- [Antithrombin mutation db](#)
- [Asthma and Allergy gene db](#)
- [BIOMDB](#) - Db of mutations causing tetrahydrobiopterin deficiencies
- [BLMbase](#) - Human BLM mutation db (Bloom snydrom)
- [BTKbase](#) - Human BTK mutation db (X-linked agammaglobulinemia)
- [CD40Lbase](#) - Human CD40 ligand mutation db
- [COL1/3 mutation](#) - Human Type I and III collagen mutation db
- [CFTR mutation](#) - Human cystic fibrosis mutation db (CFTR)
- [EMD db](#) - Human Emerin (EMD) mutation db (Emery-Dreifuss muscular dystrophy)
- [KMeyeDB](#) - Eye disease genes db
- [FVII mutation](#) - Human Factor VII mutation db
- [HAMSTeRS](#) - Human Factor VIII mutation db (Haemophilia A)
- [HAeMB](#) - Human Factor IX mutation db (Haemophilia B)
- [FBN1 mutation](#) - Human fibrillin 1 mutation db (Marfan syndrome)
- [G6PD](#) - Human G6PD deficiency resource
- [Galt mutation](#) - Human galactose-1-phosphate uridylyltransferase mutation db (Galactosemia)
- [HEXAdb](#) - Human Hexosaminidase A mutation db (Tay-sachs disease)
- [IL2RGbase](#) - Human IL2RG (Interleukin-2 receptor gamma) mutation db (X-SCID)
- [L1CAM mutation](#) - Human L1CAM mutation db
- [LDLR mutation](#) - Human LDLR mutation db (Familial hypercholesterolemia)
- [LQTSdb](#) - Long QT syndrome db
- [NCF1base](#) - Human NCF1 mutation db
- [NCF2base](#) - Human NCF2 mutation db
- [Neuromuscular diseases web site](#)
- [NCL](#) - Neuronal Ceroid Lipofuscinoses mutation db
- [OTCase](#) - Human ornithine transcarbamylase (OTCase) website

- [Cytochrome P450 alleles nomenclature](#)
- [p53 mutation db](#) - University of Tokyo p53 mutation db
- [Germline p53 mutation db](#) - University of Prague db of germline p53 mutations
- [PAHdb](#) - Human phenylalanine hydroxylase (PAH) mutation db
- [PAX6 mutation](#) - Human PAX6 mutation db
- [Prion](#) - Prion and prion disease web site
- [RAG1base](#) - Human RAG1 mutation db
- [RAG2base](#) - Human RAG2 mutation db
- [RB1base](#) - Human retinoblastoma-associated protein (RB) mutation db
- [RetNet](#) - Retinal Information Network
- [Retina International Scientific Newsletter](#) - Information on Retinal genes, proteins and diseases
- [TSC](#) - TSC (TSC1/TSC2) variation db
- [TSC2](#) - Cardiff-Rotterdam Tuberous Sclerosis (TS) db (Tuberin; TSC2)
- [TGDB](#) - Tumor gene db
- [VMD2 mutation](#) - Human VMD2 mutation db
- [vWF mutation](#) - Human von Willebrand factor (vWF) mutation db
- [WRN](#) - Human WRN mutation db (Warner disease)
- [WT1 mutation](#) - Human WT1 mutation db
- [X-ALD mutation](#) - Human cccc1 mutation db

七、专利数据库

- [DPD](#) - DNA Patent db
- [Ag Patents](#) - Agricultural Biotechnology patents from the USDA
- [USPTO patent db](#) - USA Patent and Trademark Office patent db
- http://ep.espacenet.com/ - Patent information database from the European Patent Office (worldwide coverage)
- [The Delphion Intellectual Property Network (IPN)](#) for searching, viewing, and analyzing patent documents.

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