Minoru Kanehisa

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66,103 67 189 197 h-index g-index citations papers 85,411 8.47 197 9.3 L-index avg, IF ext. citations ext. papers

| # | Paper | IF | Citations |
|-----|--|------------------|-----------|
| 189 | KEGG: integrating viruses and cellular organisms. <i>Nucleic Acids Research</i> , 2021 , 49, D545-D551 | 20.1 | 702 |
| 188 | KEGG mapping tools for uncovering hidden features in biological data. Protein Science, 2021, | 6.3 | 54 |
| 187 | KofamKOALA: KEGG Ortholog assignment based on profile HMM and adaptive score threshold. <i>Bioinformatics</i> , 2020 , 36, 2251-2252 | 7.2 | 263 |
| 186 | KEGG Mapper for inferring cellular functions from protein sequences. <i>Protein Science</i> , 2020 , 29, 28-35 | 6.3 | 362 |
| 185 | Toward understanding the origin and evolution of cellular organisms. <i>Protein Science</i> , 2019 , 28, 1947-19 | 9561 3 | 728 |
| 184 | New approach for understanding genome variations in KEGG. <i>Nucleic Acids Research</i> , 2019 , 47, D590-D5 | 5 925 0.1 | 1001 |
| 183 | Inferring Antimicrobial Resistance from Pathogen Genomes in KEGG. <i>Methods in Molecular Biology</i> , 2018 , 1807, 225-239 | 1.4 | 7 |
| 182 | Enzyme Annotation and Metabolic Reconstruction Using KEGG. <i>Methods in Molecular Biology</i> , 2017 , 1611, 135-145 | 1.4 | 59 |
| 181 | KEGG: new perspectives on genomes, pathways, diseases and drugs. <i>Nucleic Acids Research</i> , 2017 , 45, D353-D361 | 20.1 | 3970 |
| 180 | KEGG GLYCAN 2017 , 177-193 | | 5 |
| 179 | Revealing phenotype-associated functional differences by genome-wide scan of ancient haplotype blocks. <i>PLoS ONE</i> , 2017 , 12, e0176530 | 3.7 | |
| 178 | Identification of Enzyme Genes Using Chemical Structure Alignments of Substrate-Product Pairs. Journal of Chemical Information and Modeling, 2016 , 56, 510-6 | 6.1 | 8 |
| 177 | KEGG as a reference resource for gene and protein annotation. <i>Nucleic Acids Research</i> , 2016 , 44, D457-6 | 62 0.1 | 3357 |
| 176 | BlastKOALA and GhostKOALA: KEGG Tools for Functional Characterization of Genome and Metagenome Sequences. <i>Journal of Molecular Biology</i> , 2016 , 428, 726-731 | 6.5 | 1382 |
| 175 | KEGG Bioinformatics Resource for Plant Genomics and Metabolomics. <i>Methods in Molecular Biology</i> , 2016 , 1374, 55-70 | 1.4 | 51 |
| 174 | Symbol Nomenclature for Graphical Representations of Glycans. <i>Glycobiology</i> , 2015 , 25, 1323-4 | 5.8 | 585 |
| 173 | Glycomic analysis using KEGG GLYCAN. <i>Methods in Molecular Biology</i> , 2015 , 1273, 97-107 | 1.4 | 13 |

(2012-2014)

| 172 | Data, information, knowledge and principle: back to metabolism in KEGG. <i>Nucleic Acids Research</i> , 2014 , 42, D199-205 | 20.1 | 2277 |
|-----|---|---------------|------|
| 171 | PIERO ontology for analysis of biochemical transformations: effective implementation of reaction information in the IUBMB enzyme list. <i>Journal of Bioinformatics and Computational Biology</i> , 2014 , 12, 1442001 | 1 | 6 |
| 170 | DINIES: drug-target interaction network inference engine based on supervised analysis. <i>Nucleic Acids Research</i> , 2014 , 42, W39-45 | 20.1 | 82 |
| 169 | Predictive genomic and metabolomic analysis for the standardization of enzyme data. <i>Perspectives in Science</i> , 2014 , 1, 24-32 | 0.8 | 5 |
| 168 | Pathways of Toxicity. ALTEX: Alternatives To Animal Experimentation, 2014, 31, 53-61 | 4.3 | 59 |
| 167 | Automated interpretation of metabolic capacity from genome and metagenome sequences. <i>Quantitative Biology</i> , 2013 , 1, 192-200 | 3.9 | 1 |
| 166 | Chemical and genomic evolution of enzyme-catalyzed reaction networks. FEBS Letters, 2013, 587, 2731 | - 73.8 | 25 |
| 165 | KCF-S: KEGG Chemical Function and Substructure for improved interpretability and prediction in chemical bioinformatics. <i>BMC Systems Biology</i> , 2013 , 7 Suppl 6, S2 | 3.5 | 20 |
| 164 | Molecular network analysis of diseases and drugs in KEGG. Methods in Molecular Biology, 2013, 939, 263 | 3 -7.5 | 63 |
| 163 | Modular architecture of metabolic pathways revealed by conserved sequences of reactions. <i>Journal of Chemical Information and Modeling</i> , 2013 , 53, 613-22 | 6.1 | 59 |
| 162 | KEGG OC: a large-scale automatic construction of taxonomy-based ortholog clusters. <i>Nucleic Acids Research</i> , 2013 , 41, D353-7 | 20.1 | 81 |
| 161 | KEGG for integration and interpretation of large-scale molecular data sets. <i>Nucleic Acids Research</i> , 2012 , 40, D109-14 | 20.1 | 3314 |
| 160 | Evaluation method for the potential functionome harbored in the genome and metagenome. <i>BMC Genomics</i> , 2012 , 13, 699 | 4.5 | 40 |
| 159 | Using the KEGG database resource. Current Protocols in Bioinformatics, 2012, Chapter 1, Unit1.12 | 24.2 | 148 |
| 158 | The KEGG databases and tools facilitating omics analysis: latest developments involving human diseases and pharmaceuticals. <i>Methods in Molecular Biology</i> , 2012 , 802, 19-39 | 1.4 | 73 |
| 157 | Population model-based inter-diplotype similarity measure for accurate diplotype clustering. Journal of Computational Biology, 2012 , 19, 55-67 | 1.7 | 1 |
| 156 | GENIES: gene network inference engine based on supervised analysis. <i>Nucleic Acids Research</i> , 2012 , 40, W162-7 | 20.1 | 33 |
| 155 | 2PT107 A classification of enzymatic reactions and its application to metabolic pathway search(The 50th Annual Meeting of the Biophysical Society of Japan). <i>Seibutsu Butsuri</i> , 2012 , 52, S122 | Ο | |

| 154 | Comparative genome analysis of three eukaryotic parasites with differing abilities to transform leukocytes reveals key mediators of Theileria-induced leukocyte transformation. <i>MBio</i> , 2012 , 3, e00204 | 4-72 ⁸ | 48 |
|-----|---|-------------------|------|
| 153 | Network-based analysis and characterization of adverse drug-drug interactions. <i>Journal of Chemical Information and Modeling</i> , 2011 , 51, 2977-85 | 6.1 | 44 |
| 152 | KEGG and GenomeNet Resources for Predicting Protein Function from Omics Data Including KEGG PLANT Resource 2011 , 271-288 | | 4 |
| 151 | MUCHA: multiple chemical alignment algorithm to identify building block substructures of orphan secondary metabolites. <i>BMC Bioinformatics</i> , 2011 , 12 Suppl 14, S1 | 3.6 | 1 |
| 150 | iPath2.0: interactive pathway explorer. <i>Nucleic Acids Research</i> , 2011 , 39, W412-5 | 20.1 | 244 |
| 149 | SIMCOMP/SUBCOMP: chemical structure search servers for network analyses. <i>Nucleic Acids Research</i> , 2010 , 38, W652-6 | 20.1 | 88 |
| 148 | PathPred: an enzyme-catalyzed metabolic pathway prediction server. <i>Nucleic Acids Research</i> , 2010 , 38, W138-43 | 20.1 | 191 |
| 147 | KEGG for representation and analysis of molecular networks involving diseases and drugs. <i>Nucleic Acids Research</i> , 2010 , 38, D355-60 | 20.1 | 1710 |
| 146 | Drug-target interaction prediction from chemical, genomic and pharmacological data in an integrated framework. <i>Bioinformatics</i> , 2010 , 26, i246-54 | 7.2 | 319 |
| 145 | GENOME-WIDE ANALYSIS OF PLANT UGT FAMILY BASED ON SEQUENCE AND SUBSTRATE INFORMATION 2010 , | | 1 |
| 144 | Characterization of alpha-phosphoglucomutase isozymes from Toxoplasma gondii. <i>Parasitology International</i> , 2010 , 59, 206-10 | 2.1 | 7 |
| 143 | varDB: a database of antigenic variant sequencescurrent status and future prospects. <i>Acta Tropica</i> , 2010 , 114, 144-51 | 3.2 | 3 |
| 142 | NEW KERNEL METHODS FOR PHENOTYPE PREDICTION FROM GENOTYPE DATA 2010 , | | 2 |
| 141 | KEGG GLYCAN for Integrated Analysis of Pathways, Genes, and Glycan Structures 2010 , 197-210 | | |
| 140 | E-zyme: predicting potential EC numbers from the chemical transformation pattern of substrate-product pairs. <i>Bioinformatics</i> , 2009 , 25, i179-86 | 7.2 | 57 |
| 139 | Domain shuffling and the evolution of vertebrates. <i>Genome Research</i> , 2009 , 19, 1393-403 | 9.7 | 72 |
| 138 | Comprehensive analysis of glycosyltransferases in eukaryotic genomes for structural and functional characterization of glycans. <i>Carbohydrate Research</i> , 2009 , 344, 881-7 | 2.9 | 32 |
| 137 | Extraction and analysis of chemical modification patterns in drug development. <i>Journal of Chemical Information and Modeling</i> , 2009 , 49, 1122-9 | 6.1 | 11 |

(2008-2009)

| 136 | Systems biology approaches and pathway tools for investigating cardiovascular disease. <i>Molecular BioSystems</i> , 2009 , 5, 588-602 | | 82 |
|-----|---|--------------|------|
| 135 | Characterization and evolutionary landscape of AmnSINE1 in Amniota genomes. <i>Gene</i> , 2009 , 441, 100-1 | 0 3.8 | 19 |
| 134 | REPRESENTATION AND ANALYSIS OF MOLECULAR NETWORKS INVOLVING DISEASES AND DRUGS 2009 , | | 2 |
| 133 | Using KEGG in the Transition from Genomics to Chemical Genomics 2009, 437-452 | | 2 |
| 132 | Knowledge-Based Analysis of Protein Interaction Networks in Neurodegenerative Diseases. <i>Frontiers in Neuroscience</i> , 2009 , 147-162 | | |
| 131 | Representation and analysis of molecular networks involving diseases and drugs. <i>Genome Informatics</i> , 2009 , 23, 212-3 | | 10 |
| 130 | iPath: interactive exploration of biochemical pathways and networks. <i>Trends in Biochemical Sciences</i> , 2008 , 33, 101-3 | 10.3 | 156 |
| 129 | Prediction of drug-target interaction networks from the integration of chemical and genomic spaces. <i>Bioinformatics</i> , 2008 , 24, i232-40 | 7.2 | 641 |
| 128 | Mining significant tree patterns in carbohydrate sugar chains. <i>Bioinformatics</i> , 2008 , 24, i167-73 | 7.2 | 27 |
| 127 | KEGG Atlas mapping for global analysis of metabolic pathways. <i>Nucleic Acids Research</i> , 2008 , 36, W423- | 520.1 | 343 |
| 126 | A new efficient probabilistic model for mining labeled ordered trees applied to glycobiology. <i>ACM Transactions on Knowledge Discovery From Data</i> , 2008 , 2, 1-30 | 4 | 6 |
| 125 | The repertoire of desaturases and elongases reveals fatty acid variations in 56 eukaryotic genomes. <i>Journal of Lipid Research</i> , 2008 , 49, 183-91 | 6.3 | 125 |
| 124 | Systematic survey for novel types of prokaryotic retroelements based on gene neighborhood and protein architecture. <i>Molecular Biology and Evolution</i> , 2008 , 25, 1395-404 | 8.3 | 37 |
| 123 | NETWORK ANALYSIS OF ADVERSE DRUG INTERACTIONS 2008, | | 2 |
| 122 | KEGG for linking genomes to life and the environment. <i>Nucleic Acids Research</i> , 2008 , 36, D480-4 | 20.1 | 3943 |
| 121 | AAindex: amino acid index database, progress report 2008. <i>Nucleic Acids Research</i> , 2008 , 36, D202-5 | 20.1 | 623 |
| 120 | KEGG GLYCAN for Integrated Analysis of Pathways, Genes, and Structures 2008 , 441-444 | | 3 |
| 119 | Network analysis of adverse drug interactions. <i>Genome Informatics</i> , 2008 , 20, 252-9 | | 6 |

| 118 | KAAS: an automatic genome annotation and pathway reconstruction server. <i>Nucleic Acids Research</i> , 2007 , 35, W182-5 | 20.1 | 2531 |
|-----|--|------|------|
| 117 | Identification of endocrine disruptor biodegradation by integration of structure-activity relationship with pathway analysis. <i>Environmental Science & Environmental Science &</i> | 10.3 | 11 |
| 116 | The commonality of protein interaction networks determined in neurodegenerative disorders (NDDs). <i>Bioinformatics</i> , 2007 , 23, 2129-38 | 7.2 | 47 |
| 115 | Systematic analysis of enzyme-catalyzed reaction patterns and prediction of microbial biodegradation pathways. <i>Journal of Chemical Information and Modeling</i> , 2007 , 47, 1702-12 | 6.1 | 64 |
| 114 | Prediction of nitrogen metabolism-related genes in Anabaena by kernel-based network analysis. <i>Proteomics</i> , 2007 , 7, 900-9 | 4.8 | 7 |
| 113 | Towards zoomable multidimensional maps of the cell. <i>Nature Biotechnology</i> , 2007 , 25, 547-54 | 44.5 | 73 |
| 112 | Prediction of missing enzyme genes in a bacterial metabolic network. Reconstruction of the lysine-degradation pathway of Pseudomonas aeruginosa. <i>FEBS Journal</i> , 2007 , 274, 2262-73 | 5.7 | 24 |
| 111 | Mining prokaryotic genomes for unknown amino acids: a stop-codon-based approach. <i>BMC Bioinformatics</i> , 2007 , 8, 225 | 3.6 | 16 |
| 110 | Regulation of metabolic networks by small molecule metabolites. <i>BMC Bioinformatics</i> , 2007 , 8, 88 | 3.6 | 16 |
| 109 | Characterization of relationships between transcriptional units and operon structures in Bacillus subtilis and Escherichia coli. <i>BMC Genomics</i> , 2007 , 8, 48 | 4.5 | 37 |
| 108 | KEGG bioinformatics resource for plant genomics research. <i>Methods in Molecular Biology</i> , 2007 , 406, 437-58 | 1.4 | 22 |
| 107 | Gene annotation and pathway mapping in KEGG. Methods in Molecular Biology, 2007, 396, 71-91 | 1.4 | 196 |
| 106 | Complete nucleotide sequence of the freshwater unicellular cyanobacterium Synechococcus elongatus PCC 6301 chromosome: gene content and organization. <i>Photosynthesis Research</i> , 2007 , 93, 55-67 | 3.7 | 67 |
| 105 | EGENES: transcriptome-based plant database of genes with metabolic pathway information and expressed sequence tag indices in KEGG. <i>Plant Physiology</i> , 2007 , 144, 857-66 | 6.6 | 30 |
| 104 | VisANT 3.0: new modules for pathway visualization, editing, prediction and construction. <i>Nucleic Acids Research</i> , 2007 , 35, W625-32 | 20.1 | 58 |
| 103 | Comprehensive analysis of distinctive polyketide and nonribosomal peptide structural motifs encoded in microbial genomes. <i>Journal of Molecular Biology</i> , 2007 , 368, 1500-17 | 6.5 | 116 |
| 102 | Evolutionary history and functional implications of protein domains and their combinations in eukaryotes. <i>Genome Biology</i> , 2007 , 8, R121 | 18.3 | 41 |
| 101 | Observing metabolic functions at the genome scale. <i>Genome Biology</i> , 2007 , 8, R123 | 18.3 | 36 |

(2006-2007)

| 100 | PREDICTING B CELL EPITOPE RESIDUES WITH NETWORK TOPOLOGY BASED AMINO ACID INDICES 2007 , | | 4 |
|-----|--|------------------|------|
| 99 | NEW AMINO ACID INDICES BASED ON RESIDUE NETWORK TOPOLOGY 2007 , | | 7 |
| 98 | Inference of Protein-Protein Interactions by Using Co-evolutionary Information. <i>Lecture Notes in Computer Science</i> , 2007 , 322-333 | 0.9 | |
| 97 | An improved scoring scheme for predicting glycan structures from gene expression data. <i>Genome Informatics</i> , 2007 , 18, 237-46 | | 13 |
| 96 | Analysis of common substructures of metabolic compounds within the different organism groups. <i>Genome Informatics</i> , 2007 , 18, 299-307 | | 2 |
| 95 | Extraction of phylogenetic network modules from the metabolic network. <i>BMC Bioinformatics</i> , 2006 , 7, 130 | 3.6 | 36 |
| 94 | ProfilePSTMM: capturing tree-structure motifs in carbohydrate sugar chains. <i>Bioinformatics</i> , 2006 , 22, e25-34 | 7.2 | 25 |
| 93 | ODB: a database of operons accumulating known operons across multiple genomes. <i>Nucleic Acids Research</i> , 2006 , 34, D358-62 | 20.1 | 41 |
| 92 | Identification of metabolic units induced by environmental signals. <i>Bioinformatics</i> , 2006 , 22, e375-83 | 7.2 | 4 |
| 91 | Partial correlation coefficient between distance matrices as a new indicator of protein-protein interactions. <i>Bioinformatics</i> , 2006 , 22, 2488-92 | 7.2 | 33 |
| 90 | A new efficient probabilistic model for mining labeled ordered trees 2006, | | 6 |
| 89 | KEGG as a glycome informatics resource. <i>Glycobiology</i> , 2006 , 16, 63R-70R | 5.8 | 231 |
| 88 | EGassembler: online bioinformatics service for large-scale processing, clustering and assembling ESTs and genomic DNA fragments. <i>Nucleic Acids Research</i> , 2006 , 34, W459-62 | 20.1 | 126 |
| 87 | From genomics to chemical genomics: new developments in KEGG. <i>Nucleic Acids Research</i> , 2006 , 34, D3 | 35 <u>4</u> 07.1 | 2267 |
| 86 | Quantitative elementary mode analysis of metabolic pathways: the example of yeast glycolysis. <i>BMC Bioinformatics</i> , 2006 , 7, 186 | 3.6 | 56 |
| 85 | Extracting sequence motifs and the phylogenetic features of SNARE-dependent membrane traffic. <i>Traffic</i> , 2006 , 7, 1104-18 | 5.7 | 41 |
| 84 | Structure-activity relationships and pathway analysis of biological degradation processes. <i>Journal of Pesticide Sciences</i> , 2006 , 31, 273-281 | 2.7 | |
| 83 | A 6-Approximation Algorithm for Computing Smallest Common AoN-Supertree with Application to the Reconstruction of Glycan Trees. <i>Lecture Notes in Computer Science</i> , 2006 , 100-110 | 0.9 | 1 |

| 82 | Bioinformatics approaches in glycomics and drug discovery. <i>Current Opinion in Molecular Therapeutics</i> , 2006 , 8, 514-20 | | 12 |
|----|---|------|-----|
| 81 | The repertoire of desaturases for unsaturated fatty acid synthesis in 397 genomes. <i>Genome Informatics</i> , 2006 , 17, 173-83 | | 9 |
| 80 | Analysis of the differences in metabolic network expansion between prokaryotes and eukaryotes. <i>Genome Informatics</i> , 2006 , 17, 230-9 | | 2 |
| 79 | Prediction of glycan structures from gene expression data based on glycosyltransferase reactions. <i>Bioinformatics</i> , 2005 , 21, 3976-82 | 7.2 | 75 |
| 78 | Using the KEGG database resource. Current Protocols in Bioinformatics, 2005, Chapter 1, Unit 1.12 | 24.2 | 80 |
| 77 | MRP1 mutated in the L0 region transports SN-38 but not leukotriene C4 or estradiol-17 (beta-D-glucuronate). <i>Biochemical Pharmacology</i> , 2005 , 70, 1056-65 | 6 | 9 |
| 76 | Extraction of leukemia specific glycan motifs in humans by computational glycomics. <i>Carbohydrate Research</i> , 2005 , 340, 2270-8 | 2.9 | 35 |
| 75 | A score matrix to reveal the hidden links in glycans. <i>Bioinformatics</i> , 2005 , 21, 1457-63 | 7.2 | 32 |
| 74 | Global analysis of circadian expression in the cyanobacterium Synechocystis sp. strain PCC 6803. Journal of Bacteriology, 2005 , 187, 2190-9 | 3.5 | 131 |
| 73 | Fast and accurate database homology search using upper bounds of local alignment scores. <i>Bioinformatics</i> , 2005 , 21, 912-21 | 7.2 | 18 |
| 72 | The inference of protein-protein interactions by co-evolutionary analysis is improved by excluding the information about the phylogenetic relationships. <i>Bioinformatics</i> , 2005 , 21, 3482-9 | 7.2 | 126 |
| 71 | Utilizing evolutionary information and gene expression data for estimating gene networks with bayesian network models. <i>Journal of Bioinformatics and Computational Biology</i> , 2005 , 3, 1295-313 | 1 | 42 |
| 70 | Positive regulation of sugar catabolic pathways in the cyanobacterium Synechocystis sp. PCC 6803 by the group 2 sigma factor sigE. <i>Journal of Biological Chemistry</i> , 2005 , 280, 30653-9 | 5.4 | 128 |
| 69 | Alteration of gene expression in human hepatocellular carcinoma with integrated hepatitis B virus DNA. <i>Clinical Cancer Research</i> , 2005 , 11, 5821-6 | 12.9 | 63 |
| 68 | Conservation of gene co-regulation between two prokaryotes: Bacillus subtilis and Escherichia coli. <i>Genome Informatics</i> , 2005 , 16, 116-24 | | 3 |
| 67 | Comprehensive analysis and prediction of synthetic lethality using subcellular locations. <i>Genome Informatics</i> , 2005 , 16, 150-8 | | |
| 66 | A global representation of the carbohydrate structures: a tool for the analysis of glycan. <i>Genome Informatics</i> , 2005 , 16, 214-22 | | 7 |
| 65 | Autoimmune diseases and peptide variations. <i>Genome Informatics</i> , 2005 , 16, 272-80 | | |

| 64 | Managing and analyzing carbohydrate data. SIGMOD Record, 2004, 33, 33-38 | 1.1 | 4 |
|----|--|------|------|
| 63 | The evolutionary repertoires of the eukaryotic-type ABC transporters in terms of the phylogeny of ATP-binding domains in eukaryotes and prokaryotes. <i>Molecular Biology and Evolution</i> , 2004 , 21, 2149-6 | 08.3 | 27 |
| 62 | Application of a new probabilistic model for recognizing complex patterns in glycans. <i>Bioinformatics</i> , 2004 , 20 Suppl 1, i6-14 | 7.2 | 10 |
| 61 | The KEGG resource for deciphering the genome. <i>Nucleic Acids Research</i> , 2004 , 32, D277-80 | 20.1 | 3072 |
| 60 | Response to oxidative stress involves a novel peroxiredoxin gene in the unicellular cyanobacterium Synechocystis sp. PCC 6803. <i>Plant and Cell Physiology</i> , 2004 , 45, 290-9 | 4.9 | 99 |
| 59 | Integrative annotation of 21,037 human genes validated by full-length cDNA clones. <i>PLoS Biology</i> , 2004 , 2, e162 | 9.7 | 255 |
| 58 | Clustering under the line graph transformation: application to reaction network. <i>BMC Bioinformatics</i> , 2004 , 5, 207 | 3.6 | 10 |
| 57 | Computational assignment of the EC numbers for genomic-scale analysis of enzymatic reactions. Journal of the American Chemical Society, 2004 , 126, 16487-98 | 16.4 | 108 |
| 56 | KCaM (KEGG Carbohydrate Matcher): a software tool for analyzing the structures of carbohydrate sugar chains. <i>Nucleic Acids Research</i> , 2004 , 32, W267-72 | 20.1 | 89 |
| 55 | Using protein motif combinations to update KEGG pathway maps and orthologue tables. <i>Genome Informatics</i> , 2004 , 15, 266-75 | | 6 |
| 54 | Extraction of species-specific glycan substructures. <i>Genome Informatics</i> , 2004 , 15, 69-81 | | 5 |
| 53 | Clustering of database sequences for fast homology search using upper bounds on alignment score. <i>Genome Informatics</i> , 2004 , 15, 93-104 | | 7 |
| 52 | Extraction of phylogenetic network modules from prokayrote metabolic pathways. <i>Genome Informatics</i> , 2004 , 15, 249-58 | | 10 |
| 51 | Prediction of protein subcellular locations by support vector machines using compositions of amino acids and amino acid pairs. <i>Bioinformatics</i> , 2003 , 19, 1656-63 | 7.2 | 297 |
| 50 | Development of a chemical structure comparison method for integrated analysis of chemical and genomic information in the metabolic pathways. <i>Journal of the American Chemical Society</i> , 2003 , 125, 11853-65 | 16.4 | 348 |
| 49 | Bioinformatics in the post-sequence era. <i>Nature Genetics</i> , 2003 , 33 Suppl, 305-10 | 36.3 | 128 |
| 48 | Identification of a new cryptochrome class. Structure, function, and evolution. <i>Molecular Cell</i> , 2003 , 11, 59-67 | 17.6 | 269 |
| 47 | DNA microarray analysis of redox-responsive genes in the genome of the cyanobacterium Synechocystis sp. strain PCC 6803. <i>Journal of Bacteriology</i> , 2003 , 185, 1719-25 | 3.5 | 140 |

| 46 | Efficient tree-matching methods for accurate carbohydrate database queries. <i>Genome Informatics</i> , 2003 , 14, 134-43 | | 16 |
|----|--|------------|-------|
| 45 | Heuristics for chemical compound matching. <i>Genome Informatics</i> , 2003 , 14, 144-53 | | 16 |
| 44 | Screening for the target gene of cyanobacterial cAMP receptor protein SYCRP1. <i>Molecular Microbiology</i> , 2002 , 43, 843-53 | 4.1 | 50 |
| 43 | The KEGG databases at GenomeNet. <i>Nucleic Acids Research</i> , 2002 , 30, 42-6 | 20.1 | 954 |
| 42 | LIGAND: database of chemical compounds and reactions in biological pathways. <i>Nucleic Acids Research</i> , 2002 , 30, 402-4 | 20.1 | 215 |
| 41 | A two-component Mn2+-sensing system negatively regulates expression of the mntCAB operon in Synechocystis. <i>Plant Cell</i> , 2002 , 14, 2901-13 | 11.6 | 67 |
| 40 | Update of MAGEST: Maboya Gene Expression patterns and Sequence Tags. <i>Nucleic Acids Research</i> , 2002 , 30, 119-20 | 20.1 | 12 |
| 39 | KEGG: From Genes to Biochemical Pathways 2002 , 63-76 | | 1 |
| 38 | Extraction of organism groups from phylogenetic profiles using independent component analysis. <i>Genome Informatics</i> , 2002 , 13, 61-70 | | 3 |
| 37 | Cold-regulated genes under control of the cold sensor Hik33 in Synechocystis. <i>Molecular Microbiology</i> , 2001 , 40, 235-44 | 4.1 | 215 |
| 36 | DNA microarray analysis of cyanobacterial gene expression during acclimation to high light. <i>Plant Cell</i> , 2001 , 13, 793-806 | 11.6 | 399 |
| 35 | Prediction of higher order functional networks from genomic data. <i>Pharmacogenomics</i> , 2001 , 2, 373-85 | 2.6 | 10 |
| 34 | Whole genome sequencing of meticillin-resistant Staphylococcus aureus. <i>Lancet, The</i> , 2001 , 357, 1225-4 | Q O | 1586 |
| 33 | Pathway databases and higher order function. Advances in Protein Chemistry, 2000, 54, 381-408 | | 11 |
| 32 | AAindex: amino acid index database. <i>Nucleic Acids Research</i> , 2000 , 28, 374 | 20.1 | 488 |
| 31 | Tandem clusters of membrane proteins in complete genome sequences. <i>Genome Research</i> , 2000 , 10, 731-43 | 9.7 | 36 |
| 30 | MAGEST: MAboya gene expression patterns and sequence tags. <i>Nucleic Acids Research</i> , 2000 , 28, 133-5 | 20.1 | 34 |
| 29 | KEGG: kyoto encyclopedia of genes and genomes. <i>Nucleic Acids Research</i> , 2000 , 28, 27-30 | 20.1 | 15737 |

| 28 | Contributory presentations/posters. <i>Journal of Biosciences</i> , 1999 , 24, 33-198 | 2.3 | |
|----|--|--------|------|
| 27 | KEGG: Kyoto Encyclopedia of Genes and Genomes. <i>Nucleic Acids Research</i> , 1999 , 27, 29-34 | 20.1 | 3093 |
| 26 | Computation with the KEGG pathway database. <i>BioSystems</i> , 1998 , 47, 119-28 | 1.9 | 186 |
| 25 | Reconstruction of amino acid biosynthesis pathways from the complete genome sequence. <i>Genome Research</i> , 1998 , 8, 203-10 | 9.7 | 136 |
| 24 | A comparative analysis of ABC transporters in complete microbial genomes. <i>Genome Research</i> , 1998 , 8, 1048-59 | 9.7 | 111 |
| 23 | Linking databases and organisms: GenomeNet resources in Japan. <i>Trends in Biochemical Sciences</i> , 1997 , 22, 442-4 | 10.3 | 51 |
| 22 | A database for post-genome analysis. <i>Trends in Genetics</i> , 1997 , 13, 375-6 | 8.5 | 302 |
| 21 | The size differences among mammalian introns are due to the accumulation of small deletions. <i>FEBS Letters</i> , 1996 , 390, 99-103 | 3.8 | 31 |
| 20 | Construction and analysis of a profile library characterizing groups of structurally known proteins. <i>Protein Science</i> , 1996 , 5, 1991-9 | 6.3 | 27 |
| 19 | Analysis of amino acid indices and mutation matrices for sequence comparison and structure prediction of proteins. <i>Protein Engineering, Design and Selection</i> , 1996 , 9, 27-36 | 1.9 | 249 |
| 18 | A genetic algorithm based molecular modeling technique for RNA stem-loop structures. <i>Nucleic Acids Research</i> , 1995 , 23, 419-26 | 20.1 | 22 |
| 17 | Distribution profiles of GC content around the translation initiation site in different species. <i>FEBS Letters</i> , 1994 , 352, 7-10 | 3.8 | 9 |
| 16 | An assessment of neural network and statistical approaches for prediction of E. coli promoter sites. <i>Nucleic Acids Research</i> , 1992 , 20, 4331-8 | 20.1 | 62 |
| 15 | Construction of a dictionary of sequence motifs that characterize groups of related proteins. <i>Protein Engineering, Design and Selection</i> , 1992 , 5, 479-88 | 1.9 | 32 |
| 14 | A knowledge base for predicting protein localization sites in eukaryotic cells. <i>Genomics</i> , 1992 , 14, 897-9 | 9141.3 | 1375 |
| 13 | Expert system for predicting protein localization sites in gram-negative bacteria. <i>Proteins:</i> Structure, Function and Bioinformatics, 1991 , 11, 95-110 | 4.2 | 578 |
| 12 | Fragment peptide library for classification and functional prediction of proteins. <i>Proteins: Structure, Function and Bioinformatics</i> , 1990 , 8, 341-51 | 4.2 | 13 |
| 11 | A multivariate analysis method for discriminating protein secondary structural segments. <i>Protein Engineering, Design and Selection</i> , 1988 , 2, 87-92 | 1.9 | 20 |

| 10 | Cluster analysis of amino acid indices for prediction of protein structure and function. <i>Protein Engineering, Design and Selection</i> , 1988 , 2, 93-100 | 1.9 | 145 |
|----|--|------|-----|
| 9 | Prediction of in-vivo modification sites of proteins from their primary structures. <i>Journal of Biochemistry</i> , 1988 , 104, 693-9 | 3.1 | 23 |
| 8 | Nonrandom recurrence of consecutive repeats in noncoding mammalian sequences. <i>Mathematical Biosciences</i> , 1986 , 81, 43-52 | 3.9 | 1 |
| 7 | L-aspartate ammonia-lyase and fumarate hydratase share extensive sequence homology. <i>Biochemical and Biophysical Research Communications</i> , 1986 , 138, 568-72 | 3.4 | 26 |
| 6 | Prediction of splice junctions in mRNA sequences. <i>Nucleic Acids Research</i> , 1985 , 13, 5327-40 | 20.1 | 55 |
| 5 | Assessing the significance of local sequence homologies. <i>Mathematical Biosciences</i> , 1984 , 69, 77-85 | 3.9 | 3 |
| 4 | Fluctuation of an -helix structure. Difference between the central and terminal portions. <i>Journal of Molecular Biology</i> , 1972 , 64, 363-78 | 6.5 | 32 |
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