1. Record Nr. UNINA9910139014903321

Titolo	Protein families : relating protein sequence, structure, and function / / edited by Christine A. Orengo, Alex Bateman
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , [2014] ©2014
ISBN	1-118-74281-8 1-118-74308-3 1-118-74285-0
Descrizione fisica	1 online resource (567 p.)
Collana	Wiley series in protein and peptide science ; ; 10
Classificazione	COM082000
Altri autori (Persone)	OrengoChristine A. <1955-> BatemanAlex <1972->
Disciplina	572/.6
Soggetti	Proteins Proteomics Molecular biology - Data processing Bioinformatics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Cover; Title Page; Contents; Introduction; Contributors; Part I Concepts Underlying Protein Family Classification; Chapter 1 Automated Sequence-Based Approaches for Identifying Domain Families; 1.1 Introduction; 1.2 Motivation Behind Automated Classification; 1.3 Clustering the Sequence Space Graph; 1.4 Historical Overview of Sequence Clustering Algorithms; 1.5 Related Methods; 1.6 Quality Assessment; 1.7 ADDA-The Automatic Domain Delineation Algorithm; 1.8 Results; 1.9 Conclusions; References; Chapter 2 Sequence Classification of Protein Families: Pfam and other Resources; 2.1 Introduction 2.2 Pfam2.3 Smart, Prosite Profiles, CDD and Tigrfams; 2.4 Philosophy of Pfam; 2.5 HMMER3 and Jackhmmer; 2.6 Sources of New Families; 2.7 Annotation of Families; 2.8 The InterPro Collection; 2.9 The Future of Sequence Classification; References; Chapter 3 Classifying Proteins into Domain Structure Families; 3.1 Introduction; 3.2 The Classification Hierarchies Adopted by Scop and Cath; 3.3 Challenges in Identifying

Domains in Proteins; 3.4 Structure-Based Approaches for Identifying Related Folds and Homologs; 3.5 Approaches to Structure Comparison; 3.6 The DALI Algorithm
3.7 The SSAP Algorithm Used for Fold Recognition in CATH3.8 Fast Approximate Methods Used to Recognize Folds in CATH; 3.9 Measuring Structural Similarity; 3.10 Multiple Structure Alignment; 3.11 Classification Protocols; 3.12 Population of the Hierarchy; 3.13 Comparisons Between Scop and CATH; 3.14 Hierarchical Classifications Versus Structural Continuum; 3.15 Websites; References; Chapter 4 Structural Annotations of Genomes with Superfamily and Gene3D; 4.1 Introduction; 4.2 The Importance of Being High Throughput; 4.3 The Use of Structural Information; 4.4 Applications; 4.5 History
4.6 Technology4.7 Hidden Markov Models; 4.8 Building Models; 4.9 Domain Annotations; 4.10 High Throughput Computation; 4.11 Development of New Bioinformatics Algorithms; 4.12 Genomes; 4.13 e-Value Scores; 4.14 Other Sequence Sets; 4.15 Data Access; 4.16 Analysis Tools; 4.17 Conclusion; References; Chapter 5 Phylogenomic Databases and Orthology Prediction; 5.1 The Evolution of Novel Functions and Structures in Gene Families; 5.2 Homologs, Orthologs, Paralogs, and Other Evolutionary Terms; 5.3 The Standard Functional Annotation Protocol; 5.4 Orthology Identification Methods and Databases
5.5 Challenges in Phylogenetic Methods of Ortholog Identification5.6 Evaluating Ortholog Identification Methods; 5.7 Orthology Databases; 5.8 Phylogenomic Databases; 5.9 PhyloFacts; 5.10 Subfamily Classification in Phylofacts; 5.11 PhyloFacts 3.0; 5.12 PhylomeDB; 5.13 Panther; 5.14 Structural Phylogenomics: Improved Functional Annotation Through Integration of Information from Structure and Evolution; 5.15 Specific Issues in Phylogenomic Pipelines; 5.16 Improving Functional Inference using Information from Protein Structure; 5.17 Example Case Studies; 5.18 Review of Key Points; References
Part II In-Depth Reviews of Protein Families

Sommario/riassunto

"This book describes approaches for recognizing and classifying proteins into families of evolutionary related proteins. Reviewing all the major resources for classifying protein families, the book combines descriptions of general philosophies of protein family classification systems with detailed descriptions and examples of selected families found in different biological systems. Scientists in diverse areas of biology and protein science will learn how to use the various resources and databases and gain valuable insight into how proteins evolve and how new functional repertoires emerge"--

2. Record Nr. UNINA9910830112203321

Titolo	Biochemical pathways [[electronic resource]] : an atlas of biochemistry and molecular biology / / edited by Dietmar Schomburg, Gerhard Michal
Pubbl/distr/stampa	Hoboken, N.J., : John Wiley & Sons, c2012
ISBN	1-118-65707-1 1-118-65690-3
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (414 p.)
Classificazione	SCI007000
Altri autori (Persone)	SchomburgD (Dietmar) MichalGerhard
Disciplina	572 612.3/9 612.39
Soggetti	Metabolism
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Machine generated contents note: Chapter 1. Introduction and general aspects, chemistry and physical chemistry Gerhard Michael and Dietmar Schomburg Chapter 2. The cell and its contents: Enzymes, nucleic acids, and polymeric carbohydrates and lipids Gerhard Michal and Dietmar Schomburg Chapter 3. General metabolism in animals, plants and bacteria 3.1 Carbohydrate Metabolism and Citrate Cycle 3.2 Amino Acids and Derivatives 3.3 Tetrapyrroles 3.4 Lipids amd Glycolipids 3.5 Steriods and Isopreniods 3.6 Nucleotides and Nucleosides 3.7 Cofactors and Vitamins 3.8 Nucleic Acid Metabolism in Bacteria 3.9 Nucleic Acid Metabolism in Eukarya 3.10 Special Bacterial Metabolism and Biosynthesis of Antimicrobials 3.11 Electron Transfer Reactions and Oxidative Phosphorylation 3.12 Photosynthesis 3.13 Plant Secondary Metabolism Chapter 4. Protein biosynthesis, modification and degradation 4.1 Protein Synthesis in Bacteria 4.2 Protein Biosynthesis in Eukarya 4.3 Cell Cycle in Eukarya 4.4 Posttranslational Modification of Proteins 4.5 Protein Folding, Transport / Targeting and Degradation Chapter 5. Viruses Klaus Klumpp Chapter 6. Transport systems 6.1 Transport Through Membranes 6.2 Transport of Lipids in Plasma 6.3

	Oxygen Transport by Hemoglobin Chapter 7. Signal transduction and cellular communication Gerhard Niederfellner Chapter 8. Immune system 8.1 Components of the Immune System 8.2 Generation of a Specific Immune Response 8.3 Pathologic Immune responses 8.4 Adhesion of Leukocytes Chapter 9. Blood coagulation and fibrinolysis P. Mueller Chapter 10. Biochemical networks, bioinformatics and systems biology Dietmar Schomburg.
Sommario/riassunto	"Covering a wide range of subject matter, including biochemistry, molecular and cell biology, medicine, chemistry, and allied health, Biochemical Pathways is a full-color, easy-to-use resource for students and professionals. This information-packed reference features a unique summary of biochemical pathways based on the well-known Biochemical Pathways chart. Included is descriptive information about properties such as enzymes, chemicals, proteins, and DNA, all of which act together to create an elaborate chain that drives all biological functions. Completely updated, this new edition continues to play a valuable role in this important scientific field"--

3.

Record Nr.	UNINA9910145568503321
Titolo	Drug discovery today
Pubbl/distr/stampa	[Kidlington, Oxford], : Elsevier Science Ltd
ISSN	1878-5832
Soggetti	Drugs - Design Pharmaceutical technology Drug Design Technology, Pharmaceutical Medicaments - Conception Techniques pharmaceutiques Periodical periodicals. Periodicals. Periodiques.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Periodico
Note generali	Refereed/Peer-reviewed