1. Record Nr. UNINA9910553700403321

Autore	Norris, David O.
Titolo	Vertebrate endocrinology / David O. Norris, James A. Carr
Pubbl/distr/stampa	San Diego, : Academic press-Elsevier, c2021
ISBN	9780128200933
Edizione	[6th ed.]
Descrizione fisica	XVII, 632 p. ; 27 cm.
Altri autori (Persone)	Carr, James A.
Disciplina	573.4
Locazione	SC1
Collocazione	573.4-NOR-1
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia

2. Record Nr. UNINA9911019082203321

Titolo	Microbial transport systems / / Gunther Winkelmann, ed
Pubbl/distr/stampa	Weinheim ; ; New York, : Wiley-VCH, c2001
ISBN	9786611239299 9786610558421 9781281239297 1281239291 9781280558429 1280558423 9783527612727 3527612726 9783527600724 3527600728
Descrizione fisica	1 online resource (534 p.)
Altri autori (Persone)	WinkelmannGunther
Disciplina	571.64 571.82
Soggetti	Biological transport Microbial growth Microorganisms - Development
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	Microbial Transport Systems; Preface; Contents; List of Authors; Color Plates; 1 Families of Transporters: A Phylogenetic Overview; 1.1 Introduction; 1.2 The TC System; 1.3 The Value of Phylogenetic Classification; 1.4 Phylogeny as Applied to Transporters; 1.5 The Basis for Classification in the TC System; 1.6 Classes of Transporters; 1.7 Class 1: Channels/Pores; 1.8 Class 2: Electrochemical Potential-driven Porters; 1.9 Class 3: Primary Active Transporters; 1.10 Class 4: Group Translocators; 1.11 Class 8: Accessory Factors Involved in Transport 1.12 Class 9: Incompletely Characterized Transport Proteins1.13 Transporters with Dual Modes of Energy Coupling; 1.14 Transporters Exhibiting More than One Mode of Transport; 1.15 Conclusions and

Perspectives; References; 2 Energy-transducing Ion Pumps in Bacteria : Structure and Function of ATP Synthases; 2.1 Introduction; 2.2 Overview; 2.3 Structure, Configuration, and Interaction of F(1) Subunits; 2.4 Catalysis: Structural and Mechanistic Implications within the F(1) Complex; 2.5 The F(1)/F(O) Interface: Contact Sites for Energy Transmission
2.6 Structure, Configuration, and Interaction of F(O) Subunits2.7 Catalysis: Coupling Ion Translocation to ATP Synthesis; References; 3 Sodium/Substrate Transport; 3.1 Introduction; 3.2 Occurrence and Role of Na(+) /Substrate Transport Systems; 3.2.1 General Considerations; 3.2.2 Elevated Temperatures; 3.2.3 Na(+) -rich Environments; 3.2.4 High pH; 3.2.5 Citrate Fermentation; 3.2.6 Na(+) /Substrate Transport in Escherichia coli; 3.2.7 Osmotic Stress; 3.3 Functional Properties of Na(+) /Substrate Transport Systems; 3.3.1 General Considerations; 3.3.2 MelB; 3.3.3 PutP; 3.3.4 CitS
3.4 Transporter Structure3.4.1 General Features; 3.4.2 MelB; 3.4.3 PutP and Other Members of the SSF; 3.4.4 CitS; 3.5 Structure -Function Relationships; 3.5.1 MelB; 3.5.1.1 Site of Ion Binding; 3.5.1.2 Sugar Binding and Functional Dynamics of MelB; 3.5.2 PutP; 3.5.2.1 Site of Na (+) Binding; 3.5.2.2 Regions Important for Proline Binding; 3.5.2.3 Functional Dynamics of PutP; 3.5.3 CitS; 3.6 Concluding Remarks and Perspective; References; 4 Prokaryotic Binding Protein-dependent ABC Transporters; 4.1 A Brief History of ABC Systems; 4.2 What is an ABC System?
4.3 The Composition of the Prokaryotic ABC Transporters4.4 Associated Proteins and Signal Transduction Pathways; 4.5 The Components; 4.5.1 The Binding Proteins; 4.5.1.1 Substrate Recognition Sites are High-affinity Soluble Binding Proteins; 4.5.1.2 The Binding Test; 4.5.1.3 Special Examples; 4.5.1.4 Binding Proteins Undergo Conformational Changes upon Binding Substrate; 4.5.1.5 The Crystal Structure; 4.5.2 The Integral Transmembrane Domains (TMDs); 4.5.2.1 Organization; 4.5.2.2 Composition and Structure; 4.5.2.3 The Interaction of the TMDs with the Binding Protein; 4.5.2.4 The Sequence 4.5.3 The ABC Subunit

Sommario/riassunto

Transport of molecules across the cell membrane is a fundamental process of all living organisms. It is essential for understanding growth, development, nutrition as well as uptake and excretion of exogenous or synthesized molecules. Microbes respresent general and basic functional systems where many transport processes have been studied on a molecular basis. Knowledge of the microbial transport processes will provide new perspectives to treatments by inhibitors, drugs, antibiotics, vitamins, growth promotion compounds, activators and toxic compunds of various kinds.