1. Record Nr. UNINA9910595042903321

Titolo	Macromolecular protein complexes IV : structure and function / / edited by J. Robin Harris, Jon Marles-Wright
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-00793-X
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (viii, 552 pages) : illustrations
Collana	Subcellular Biochemistry, , 2542-8810 ; ; 99
Disciplina	541.2242
Soggetti	Complex compounds Proteins Macromolecules Macromolècules Proteïnes Compostos complexos Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1: Soluble Protein Complexes -- Chapter 1: Fatty Acid Synthase: Structure, Function, and Regulation -- Chapter 2: ATP-binding cassette transporters: Snap-on complexes? -- Chapter 3: The Fork Protection Complex: A regulatory hub at the head of the replisome -- Chapter 4: Ferritin-like Proteins: A Conserved Core for a Myriad of Enzyme Complexes -- Chapter 5: Still no rest for the reductases: Ribonucleotide reductase (RNR) Structure and Function — an update -- Chapter 6: Structure and Dynamics of the Human Multi-tRNA Synthetase Complex -- Chapter 7: On the regulation of mitosis by the kinetochore, a macromolecular complex and organising hub of eukaryotic organisms -- Part 2: Membrane Protein Complexes -- Chapter 8: The conformational dynamics of heterotrimeric G proteins during GPCR-mediated activation -- Chapter 9: Regulation of Lytic Machineries by the FtsEX Complex in the Bacterial Divisome -- Chapter 10 : Structure, Function, and Regulation of the Kainate Receptor -- Chapter 11: Structure, function and variations of the photosystem I-

antenna supercomplex from different photosynthetic organisms -- Chapter 12: Structure and Function of Mycobacterial Arabinofuranosyltransferases -- Part 3: Fibrous Protein Complexes -- Chapter 13: Structure and assembly of the bacterial flagellum -- Chapter 14: Actomyosin Complex -- Chapter 15: Structure of motile cilia -- Chapter 16: Segment-Long-Spacing (SLS) and the Polymorphic Structures of Fibrillar Collagen -- Part 4: Virus Protein Complexes -- Chapter 17: Viral Capsid and Polymerase in Reoviridae.

Sommario/riassunto

This book covers the latest findings of a wide variety of viral, prokaryotic and eukaryotic macromolecular protein complexes and builds upon the solid macromolecular foundations established by previous volumes of the Subcellular Biochemistry series. Thus, an almost encyclopaedic coverage of the broad field of protein complex structure and function has been established. The 17 interesting chapters included in this book have been organised into four sections: Soluble Protein Complexes, Membrane Protein Complexes, Fibrous Protein Complexes and Viral Protein Complexes. Significant topics present here are: Fatty Acid Synthase, the Fork Protection Complex, Ribonucleotide Reductase, the Kinetochore, G proteins, the FtsEX Complex, the Kainate Receptor, the Photosystem I-antenna, the Mycobacterial Arabinofuranosyltransferases, the the Bacterial Flagellum, the Actomyosin Complex, Motile Cilia, SLS Collagen Polymorphic Structures, and the Reovirus Capsid and Polymerase. Up-dates/expansion of chapter topics present in earlier volumes are now included in chapters here, e.g., those on Ferritin-like proteins and the Multi-tRNA Synthetase. The book is richly illustrated throughout, which is the result of an impressive integration of structural data from X-ray crystallography with that from cryo-electron microscopy. Functional aspects of protein-protein interactions are also given a high priority.