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Nota di contenuto	Chapter 1: Structures and Efflux Mechanisms of the AcrAB-TolC Pump -- Chapter 2: The Copper Efflux Regulator (CueR) -- Chapter 3: The Structural Biology of Catalase Evolution -- Chapter 4: Building the Bacterial Divisome at the Septum -- Chapter 5: Telomere C-strand fill-in Machinery: New Insights into the Human CST-DNA Polymerase Alpha-Primase Structures and Functions -- Chapter 6: The Core Complex of Yeast COMPASS and Human Mixed-linage-leukemia (MLL); Structure, Function, and Recognition of the Nucleosome -- Chapter 7: Oligomerization of monoamine transporters -- Chapter 8: Macromolecular Interactions of Lipoprotein Lipase (LPL) -- Chapter 9: Viral genomic DNA packaging machinery -- Chapter 10: Human Transient Receptor Potential Ankyrin 1 Channel: Structure, Function and

Physiology -- Chapter 11: Structural variations and rearrangements in bacterial type II C-antitoxin system -- Chapter 12: Structures and functions of the human GATOR1 complex -- Chapter 13: Mitochondrial alpha-keto acid dehydrogenase complexes: recent developments on structure and function in health and disease -- Chapter 14: Structures and electron transport paths in the four families of flavin-based electron bifurcation enzymes -- Chapter 15: The prothrombin-prothrombinase interaction -- Chapter 16: Structure and Function of the Glycosylphosphatidylinositol Transamidase, a Transmembrane Complex Catalyzing GPI Anchoring of Proteins -- Chapter 17: Maturation and assembly of mTOR complexes by the HSP90-R2TP-TTT chaperone system: molecular insights and mechanisms -- Chapter 18: Valosin-containing protein (VCP)/p97 Oligomerization -- Chapter 19: Oligomeric Structure of Yeast and Other Invertases Governs Specificity -- Chapter 20: Structure, dynamics, and functional implications of the eukaryotic Vault complex -- Chapter 21: Structure and Dynamics of Type 4a Pili and Type 2 Secretion System Endopili.

Sommario/riassunto

This volume in the Subcellular Biochemistry (SCBI) series is a continuation of several previous volumes devoted to the structural and functional study of protein complexes. The expanding nature of this field of study, derived mainly from X-ray crystallography and electron cryomicroscopy, justifies the continuing expansion of coverage in an almost encyclopaedic manner within the SCBI series. Experienced and active researchers in the field shed light on the biology of protein complexes involved in important cellular functions from different perspectives, such as AcrAB-TolC, and CST. Other topics covered are: the Toxin-Antitoxin systems in cell survival, the role of the ATPases CueR and RUVBL1-RUVBL2 in the regulation of gene expression, complexes with multiple functions in the cell such as VCP/p97 or the Vault complex, FtsA and FtsZ in bacterial cell division, GATOR1 and GATOR2 in amino acid sensing, TRPA1 and the Serotonin Transporter in signaling, oligomeric structures in eukaryotic cells such as amyloids and invertases, among others. The book is richly illustrated, the result of an impressive integration of structural data from X-ray crystallography and cryo-electron microscopy. Functional aspects of protein-protein interactions are also featured prominently, providing a valuable contribution for researchers and scholars. Chapter 13 is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com. .