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Descrizione fisica	1 online resource (xii, 538 pages) : illustrations
Collana	Subcellular Biochemistry, , 2542-8810 ; ; 97
Disciplina	571.65
Soggetti	Biological transport Cell membranes Cytology Biochemistry Diseases Membrane Trafficking Cell Biology Mechanisms of Disease Espai extracel·lular Llibres electrònics
Lingua di pubblicazione	Inglese
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Nota di contenuto	Part 1: Subtypes, Biogenesis, and Secretion of Extracellular Vesicles -- Chapter 1: Introduction to the community of extracellular vesicles -- Chapter 2: Biogenesis of extracellular vesicles -- Chapter 3: The role of post-translational modifications in targeting protein cargo to extracellular vesicles -- Chapter 4: Apoptotic bodies: Mechanism of formation, isolation and functional relevance -- Chapter 5: Exomeres: A new member of extracellular vesicles family -- Part 2: Functional Role and Clinical Implications of Extracellular Vesicles -- Chapter 6: Bacterial membrane vesicles mediate pathogenesis in the human host -- Chapter 7: Fungal Extracellular Vesicles in Pathophysiology -- Chapter 8: Socially distanced intercellular communication: mechanisms for extracellular vesicle cargo delivery -- Chapter 9: Extracellular Vesicles In Chemoresistance -- Chapter 10: Extracellular vesicle –

mediated vascular pathology in glioblastoma -- Chapter 11:
Extracellular vesicles regulate cancer metastasis -- Chapter 12:
Extracellular Vesicle-Mediated Bone Remodeling And Bone Metastasis:
Implications In Prostate Cancer -- Chapter 13: Extracellular vesicles
contain putative cancer biomarkers -- Chapter 14: Engineering
extracellular vesicles for cancer therapy -- Chapter 15: Extracellular
vesicles in metabolism and metabolic diseases -- Chapter 16:
Extracellular vesicles in neurological disorders -- Chapter 17: Emerging
Roles of Extracellular Vesicles derived Non-Coding RNAs in the
Cardiovascular System -- Chapter 18: Extracellular vesicles and
Preeclampsia - Current knowledge and future research directions --
Chapter 19: The role of extracellular vesicles in sperm function and
male fertility -- Chapter 20: Extracellular Vesicles and Cerebral Malaria
-- Chapter 21: Are dietary extracellular vesicles bioavailable and
functional in consuming organisms? .

Sommario/riassunto

The field of extracellular vesicles (EVs) has progressed immensely in recent times with evidences highlighting their importance in physiology and pathology. This book entails extensive reflective literature on many subtypes of EVs including exosomes, exomeres, ectosomes, apoptotic vesicles, bacterial EVs and fungal EVs. The book further discusses the biogenesis and secretion of these EVs, detailing the biological pathways and proteins involved. Research investigating the biological functions of EVs is rapidly increasing and the current knowledge around their role in progression of diseases such as cancer, neurodegeneration and metabolic disorders is discussed in multiple chapters. The implications of EVs in intercellular communication and the significance of biologically active cargo carried within these EVs are further examined. Moreover, the numerous applications of EVs in diagnostics and treatment of diseases are reviewed in detail, particularly their potential as biomarkers and drug delivery vehicles. Taken together, this book is a compilation of the key implications of EVs that are secreted by virtually all cell types. Readers will gain a perspective into the biology, functions and applications of EVs and their constantly evolving knowledge base.
