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Altri autori (Persone)	BarnstableColin J Tombran-TinkJoyce
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Nota di contenuto	Transport in the Anterior Segment -- Aquaporins and Water Transport in the Cornea -- Roles of Corneal Epithelial Ion Transport Mechanisms in Mediating Responses to Cytokines and Osmotic Stress -- Vitamin C Transport, Delivery, and Function in the Anterior Segment of the Eye -- Transporters of the Ciliary Epithelium -- Mechanisms of Aqueous Humor Formation -- Lens Transporters -- Membrane Transporters -- Lens Na+, K+-ATPase -- Transport Across the Blood–Retinal Barrier -- Pathophysiology of Pericyte-containing Retinal Microvessels -- Molecular Mechanisms of the Inner Blood-Retinal Barrier Transporters -- Transport Across the Retinal Pigment Epithelium -- Regulation of Transport in the RPE -- Glucose Transporters in Retinal Pigment Epithelium Development -- Ca2+ Channels in the Retinal Pigment Epithelium -- Taurine Transport Pathways in the Outer Retina in Relation to Aging and Disease -- P-Glycoprotein Expression and Function in the Retinal Pigment Epithelium -- Transporters in the Retina -- The Retinal Rod NCKX1 and Cone/Ganglion Cell NCKX2

Na+/Ca2+-K+ Exchangers -- Excitatory Amino Acid Transporters in the Retina -- Localization and Function of Gamma Aminobutyric Acid Transporter 1 in the Retina -- Genetic Variants of Ocular Transporters -- Biochemical Defects Associated with Genetic Mutations in the Retina-Specific ABC Transporter, ABCR, and Macular Degenerative Diseases -- Glutamate Transporters and Retinal Disease and Regulation -- Glutamate Transport in Retinal Glial Cells during Diabetes -- Ocular Drug Delivery -- The Emerging Significance of Drug Transporters and Metabolizing Enzymes to Ophthalmic Drug Design -- Barriers in Ocular Drug Delivery -- Ophthalmic Applications of Nanotechnology -- Vitamin C Transporters in the Retina -- The Plasma Membrane Transporters and Channels of Corneal Endothelium.

Sommario/riassunto

This exceptionally important new work represents recent discoveries and advancements in the study of ocular transporters and their roles in ocular physiology, pathology, and drug delivery. Transporters are found on the membranes of cells and play a key role in transmitting signals between cells. In Ocular Transporters in Ophthalmic Diseases and Drug Delivery, a panel of distinguished authors discusses all the latest developments in the study of ocular transporters. Focusing on the molecular characteristics, localization, and substrate specificities in various compartments of the eye, this volume discusses how transporters regulate the clarity of the cornea and lens, the movements of fluids across the ciliary epithelium, and the transport of nutrients across the retinal pigment epithelium. It also provides an in-depth look at how mutations or dysfunction of specific transporters can contribute to various disorders in the eye, including blindness, and provides readers with potential targets and strategies to allow safe passage of therapeutic drugs into the eye. Ocular Transporters in Ophthalmic Diseases and Drug Delivery is the first text book in this field and offers up-to-date information to clinicians, research scientists in academia, and the pharmaceutical industry. This work has clinical implications for drug development and therapeutic drug delivery, making it an invaluable resource for readers.