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Nota di contenuto	Photoreceptor cell replacement therapy from stem cells -- Human Pluripotent Stem Cells as In Vitro Models for Retinal Development and Disease -- Clinical Applications of Limbal Stem Cells for Regenerative Medicine -- Bioengineered and Regenerative Medicine Strategies for Retina Repair -- Stem Cell Therapy and Regenerative Medicine in the Cornea -- Overview of Cells and Animal Models use for Retinal Stem Cell Research -- Limbal stem cells and the treatment of limbal stem cell deficiency -- Retinal ganglion cell replacement – A bridge to the brain -- Index.
Sommario/riassunto	This book provides an overview of the types, sources, and applications of stem cells in regenerating various ocular tissues, with a perspective on both potential applications of stem cells and possible challenges. The scope of the chapters include both preclinical and clinical applications, including stem cell-derived therapies based on

endogenous tissue repair; stem cell transplantation and cell replacement therapy; gene therapy; and in vitro disease modelling. Additionally, the volume presents applications in both anterior and posterior ocular disease, with a particular focus on diseases of the ocular surface, cornea, limbus, and retina, including inherited retinal dystrophies as well as acquired diseases, such as age-related macular degeneration. Regenerative Medicine and Stem Cell Therapy for the Eye is an ideal book for advanced researchers in stem cell and ocular biology as well as clinical ophthalmologists, and will be of interest to readers with backgrounds in developmental biology and bioengineering. This book also Skillfully reviews cutting-edge advances in stem cell biology as applied to regenerative medicine and ocular disease Provides expert viewpoints on key hurdles and challenges to successful implementation of stem cell-derived therapies in the clinical domain Offers a multi-disciplinary, broad understanding of cell-based therapies for ocular diseases by incorporating perspectives from biomedical scientists, physicians, and engineers Examines the connection between cell therapy and gene editing, in particular relation to ocular disease.