

Contents

1 Gene Therapy and Stem Cell Therapy: Overview	1
Aaron L. Magno, Samuel McLenachan, and Elizabeth P. Rakoczy	
2 Gene Therapy for Leber’s Congenital Amaurosis Due to <i>RPE65</i> Mutations	9
Jean Bennett	
3 Gene Therapy for Choroideremia	27
Alun R. Barnard, Markus Groppe, and Robert E. MacLaren	
4 Gene Therapy for Dominantly Inherited Retinal Degeneration	43
Gwyneth Jane Farrar, Sophia Millington-Ward, Arpad Palfi, Naomi Chadderton, and Paul F. Kenna	
5 Age-Related Macular Degeneration: The Challenges	61
Elizabeth P. Rakoczy, Cecinio C. Ronquillo Jr., Samuel F. Passi, Balamurali K. Ambati, Aaron Nagiel, Robert Lanza, and Steven D. Schwartz	
6 Neovascular Age-Related Macular Degeneration: Secretion Gene Therapy	65
Elizabeth P. Rakoczy, Chooi-May Lai, and Ian J. Constable	
7 Transplantation of Human Embryonic Stem Cell-Derived Retinal Pigment Epithelium for the Treatment of Macular Degeneration	77
Aaron Nagiel, Robert Lanza, and Steven D. Schwartz	
8 Restoring Physiologic Barriers Against Neovascular Invasion	87
Cecinio C. Ronquillo Jr., Samuel F. Passi, and Balamurali K. Ambati	