1.	Record Nr.	UNINA9910337524703321
	Titolo	Corneal Regeneration : Therapy and Surgery / / edited by Jorge L. Alió, Jorge L. Alió del Barrio, Francisco Arnalich-Montiel
	Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
	ISBN	3-030-01304-9
	Edizione	[1st ed. 2019.]
	Descrizione fisica	1 online resource (XXV, 507 p. 210 illus., 150 illus. in color.)
	Collana	Essentials in Ophthalmology, , 2196-890X
	Disciplina	617.7
	Soggetti	Ophthalmology
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Nota di contenuto	Part 1. Corneal Regeneration: The Concept, the Facts, the Potential Chapter 1: Corneal Anatomy Chapter 2: Corneal Healing Chapter 3: Corneal Tissue Engineering Part 2. The Stem Cell Chapter 4: Stem Cells: Concept, Properties, and Characterization Chapter 5: Corneal Stem Cells: Identification and Methods of Ex Vivo Expansion Chapter 6: Corneal Epithelial Stem Cells : Methods for Ex Vivo Expansion Chapter 7: Corneal Stromal Stem Cell: Methods for Ex Vivo Expansion Chapter 8: Corneal Endothelial Cells: Methods for Ex Vivo Expansion Chapter 9: Corneal Regeneration: Use of Extracorneal Stem Cells Chapter 10: One Cell, Two Phenotypes: Capturing Pluripotency for Corneal Regeneration Chapter 11: Corneal Stem Cell Based Therapies Part 3. Regenerative Surgery and Therapy of the Ocular Surface Epithelium Chapter 12: Ocular Surface Epithelium: Applied Anatomy Chapter 13: Classical Techniques for Limbal Transplantation Chapter 14: Simple Limbal Epithelial Transplantation: An Update Chapter 15: Cell Therapy Using Ex Vivo Cultured Limbal Cells: CLET and Equivalent Chapter 16: Cell Therapy Using Cultivated Oral Mucosal Epithelial Transplant (COMET) Chapter 17: Cell Therapy Using Extraocular Mesenchymal Stem Cells Chapter 18: Cell Therapy Using Induced Pluripotent Stem Cells Chapter 19: Cultivated Limbal Stem Cell Transplantation: Indications and Technique Chapter 20: Optimizing the Ocular Surface for Regenerative Surgery: What is Important and What is Essential for the Outcome Chapter 21:

	Stem Cell Spheres for Corneal Regeneration Chapter 22: Platelet Rich Plasma (E-PRP) for Corneal Regeneration Part 4. Regenerative Surgery of the Corneal Stroma Chapter 23: Corneal Stroma: Applied Anatomy Chapter 24: Adipose Stem Cells for Stromal Expansion in Keratoconus: Confocal Microscopic Evaluation Chapter 25: Limbal Stromal Stem Cells in Corneal Wound Healing: Perspective and Current Update Chapter 26: Cell Therapy of the Corneal Stroma Using Ex Vivo Cultured Extraocular Cells Part 5. Regenerative Surgery of the Corneal Endothelium Chapter 27: Corneal Endothelium: Applied Anatomy Chapter 28: Corneal Endothelium: Isolation and Cultivation Methods Chapter 29: Corneal Endothelial Cell Transplantation: Animal Models Chapter 30: Cell Based Therapy for Corneal Endothelial Regeneration Chapter 31: Corneal Endothelium Regeneration: Future Prospects Chapter 33: Dysfunctional Corneal Endothelium: Delivery of Cell Therapy.
Sommario/riassunto	This text provides expert instruction on the varying surgical techniques currently employed for the regeneration of the ocular surface. Corneal Regeneration: Therapy and Surgery begins with a thorough discussion of current research based on data obtained in clinical human studies, and discusses the potential clinical implications for this promising new stage of eye surgery. Sections devoted to the stem cell, regenerative surgery and therapy of the ocular surface epithelium, corneal stroma, and corneal endothelium follow, each section comprehensively covering applied anatomy, current therapy and regenerative techniques, with a look to future directions of the field including eventual cell therapy. Corneal Regeneration: Therapy and Surgery is the first book of its kind, systematically covering the developments the medical community has achieved in corneal regeneration from all angles. Written and edited by leading experts in the field, researchers and ophthalmologists alike will find this to be a unique source of information on corneal regeneration, as well as a thoughtful reflection on potential applications of regenerative surgery in ophthalmology as a whole.