

1. Record Nr.	UNINA9910416108003321
Autore	Trofimova Svetlana
Titolo	Molecular Mechanisms of Retina Pathology and Ways of its Correction / / by Svetlana Trofimova
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-50160-4
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (VI, 90 p. 17 illus., 11 illus. in color.)
Disciplina	617.7
Soggetti	Medicine Geriatrics Ophthalmology Pathology Cytology Pharmacy Biomedicine, general Geriatrics/Gerontology Cell Biology Oftalmopaties Retina Biologia molecular Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Literature review -- Chapter 2. Results of experimental studies of short peptides (cytogens) in ophthalmology -- Chapter 3. Results of the clinical study of short peptides (cytogens) in ophthalmology -- Conclusion.
Sommario/riassunto	This book discusses the pathology of the retina, and reviews current research on the use of cell replacement therapy and short peptides to restore functional activity in retinal neurons. As the book describes, pathologies of the retina, including age-related macular degeneration, diabetic retinopathy, and retinitis pigmentosa, present a long-standing

challenge in the practice of clinical ophthalmology. Modern treatment for these conditions, which lead to irreversible blindness, includes laser exposure, surgical intervention, and drugs. These treatments aim to reduce the risk of new complications in the eye; pathogenetic therapy of degenerative diseases of the retina is practically absent in current ophthalmic practice. The first section of the book reviews the molecular mechanisms of age-related macular degeneration, diabetic retinopathy, and retinitis pigmentosa, and reports on methods of treatment. The second section presents the results of recent experimental studies of the effects of short peptides on pluripotent embryonic cells; on proliferative activity in retinal cells and pigment epithelium; on expression of markers of differentiation or retinal neurons and pigment epithelium; and on the course of hereditary retinal pigmentation in Campbell rats. The third section offers results of clinical studies on the effectiveness of short peptides in patients with macular degeneration, and in patients with retinitis pigmentosa. The author concludes that the regular use of peptides in the treatment of degenerative diseases of the retina can slow the progression of the pathological process and preserve the patient's vision for some 10-15 years. In addition, in 80 percent of patients, it is possible to increase visual function by increasing visual acuity, improving the boundaries of the visual field and the fundus.
