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Titolo	Drug Delivery for the Retina and Posterior Segment Disease // edited by Jayvadan K. Patel, Vijaykumar Sutariya, Jagat Rakesh Kanwar, Yashwant V. Pathak
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Nota di contenuto	Part I- Introduction and basic concept of drug delivery for retina and posterior segment disease -- Anatomy and physiology of retina and posterior segment of the eye -- Pharmacotherapy of diabetic macular edema and retinopathy -- Drug delivery to posterior segment of eye: Conventional delivery strategies, their barriers and restrictions -- Penetration routes to retina and posterior segment -- Diabetic Retinopathy: Pathogenesis, Treatment, and Complications -- PART II- Nanotechnology based formulations for retina and posterior segment disease -- Liposomes for retina and posterior segment disease -- Nano/microparticles for retina and posterior segment disease -- Non-viral delivery systems for gene therapy for retina and posterior segment disease -- Oxidative stress in ocular disorders: Exploring the link to pesticide exposure and potential for using nanotechnology for antioxidant delivery -- Advances in the microbial infection in cornea and role of nanotechnology to cure ocular surface -- Nanomedicine based delivery to the posterior segment of eye: Brighter tomorrow -- Part III-Transscleral iontophoresis for retina and posterior segment disease -- Transscleral drug delivery to retina and posterior segment disease -- Colloidal carrier systems transscleral drug delivery -- Transscleral Iontophoretic Drug Delivery for Treating Retinal Diseases

-- Part IV-Implant formulation for posterior eye segment -- Biodegradable polymeric implants for retina and posterior segment disease -- Nanomedicine based gene delivery for the retina and posterior segment diseases -- Part V-Prodrug strategies for retina and posterior segment disease -- Transporter targeted Pro-drug approach for retina and posterior segment disease -- Lipid Prodrug based delivery for retina and posterior segment disease -- Injectable Pro-drugs approach for retina and posterior segment disease -- Stereoisomeric dipeptide Pro-drug approach for retina and posterior segment disease -- Part VI-Other advances for retina and posterior segment diseases -- Receptor targeted Pro-drug approach for retina and posterior segment disease -- Intravitreal injection drug delivery for retina and posterior segment disease: Challenges and Future ahead -- Thermoresponsive gels drug delivery for retina and posterior segment disease -- Peptide synthesis and delivery for retina and posterior segment disease -- Corneal haze, refractive surgery and its implications on choroidal neovascularisation. .

#### Sommario/riassunto

This book addresses the issues relating to a wide variety of ocular diseases from which millions of people suffer. Long-term challenges include visual impairment and ocular blindness. Certain ocular diseases are quite rare, whereas others, such as cataracts, age-related macular degeneration (AMD), and glaucoma, are very common, especially in the aging population. A rapid expansion of new technologies in ocular drug delivery and new drug candidates, including biologics, to treat these challenging diseases in the retina and posterior segments of the eye have recently emerged. These approaches are necessary because the eye has many unique barriers to drug delivery. Thus, this timely reference Drug Delivery for the Retina and Posterior Segment Disease compiles and analyzes recent advances in the research and development of drug delivery systems for retina and posterior segment diseases of the eye, with an emphasis on the use of implantable devices, iontophoresis as well as micro- and nanoparticles. .