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Autore	Mehra Neelesh Kumar
Titolo	Complex Ophthalmic Dosage Forms: Advances in Biomedical Applications and Future Perspectives // edited by Neelesh Kumar Mehra
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ISBN	981-9663-06-7
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Disciplina	615.6
Soggetti	Drug delivery systems Ophthalmology Nanomedicine Drug Delivery Nanomedicine and Nanotoxicology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	CHAPTER 1. Ocular drug delivery: introduction and fundamental concept -- CHAPTER 2. Eye: anatomy, physiology and disease -- CHAPTER 3. Drug delivery to the anterior segment of eye -- CHAPTER 4. Drug delivery to the posterior segment of eye -- CHAPTER 5. Fixed-dose combination approach in therapeutic delivery to the eye -- CHAPTER 6. Role of preservatives in ophthalmic products -- CHAPTER 7. Reverse engineering in complex/combination ophthalmic product -- CHAPTER 8. Role of quality by design (qbd) in ophthalmic products -- CHAPTER 9. Advances and opportunities of the novel functional nanocarriers -- CHAPTER 10. Safety and toxicities of nanocarriers in ophthalmic drug delivery system -- CHAPTER 11. Validation in sterile ophthalmic formulation -- CHAPTER 12. Packaging, container and closure of ophthalmic products -- CHAPTER 13. Regulatory perspectives in ophthalmic products -- CHAPTER 14. Polymeric microsponges for drug delivery to ocular candidiasis infections: preclinical and clinical evidences.
Sommario/riassunto	This book, Complex Ophthalmic Dosage Forms: Advances in Biomedical Applications and Future Perspectives, offers a detailed overview of the

latest innovations in ophthalmic drug delivery. Beginning with the fundamentals of ocular drug delivery systems and the anatomy of the eye, this book provides an exploration of drug delivery to both the anterior and posterior segments. A dedicated chapter on the fixed-dose combination approach examines its application in ocular diseases, highlighting both its therapeutic potential and associated challenges. Furthermore, the book delves into key aspects of ophthalmic product development, including reverse engineering, the role of preservatives, and the application of Quality by Design (QbD) principles. It includes discussions on the safety of nanoformulations, as well as an in-depth analysis of emerging nano-assisted platforms in ocular drug delivery, highlighting both opportunities and safety concerns. Recognizing the importance of packaging a dedicated chapter explores the critical role of sterility in ocular products, detailing sterility validation processes to ensure product safety and efficacy. This is followed by a thorough discussion on packaging, including the selection of appropriate containers and closure systems. Given that an optimized packaging system is essential for maintaining the stability, sterility, and overall quality of ophthalmic products, this section highlights key considerations in designing effective packaging solutions. Additionally, the book delves into regulatory considerations, challenges in clinical translation, and potential future developments that may redefine ophthalmic therapeutics.></p>
