1. Record Nr. UNINA9910377838803321 Novel Drug Delivery Technologies: Innovative Strategies for Drug Re-**Titolo** positioning / / edited by Ambikanandan Misra, Aliasgar Shahiwala Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-13-3642-3 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (XXIV, 431 p. 62 illus., 40 illus. in color.) 615.6 Disciplina Soggetti Pharmacology Pharmacy Medicinal chemistry Nanochemistry Pharmacology/Toxicology Drug Safety and Pharmacovigilance **Medicinal Chemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter 1. Poorly water soluble drugs and formulation strategies to improve oral bioavailability -- Chapter 2. Buccal and intraoral drug delivery: Potential alternative to conventional therapy -- Chapter 3. Gastro-retentive drug delivery Systems: Current strategies and challenges -- Chapter 4. Peyer's patch: Targeted drug delivery for therapeutics benefits -- Chapter 5. Colonic drug delivery systems as Multi-unit potential: Therapeutic strategies and opportunities --Chapter 6. Controlled and prolonged drug delivery systems: Therapeutics needs and formulation strategies -- Chapter 7. Transdermal drug administration: Emerging techniques and improved patient compliance -- Chapter 8. Inhalation drug therapy: Emerging trends in Nasal and pulmonary drug delivery -- Chapter 9. Ophthalmic and otic drug administration: Novel approaches and challenges --Chapter 10. Targeted drug delivery to brain: Challenges and formulation approaches -- Chapter 11. Opportunities and challenges in targeted carrier based drug delivery: Increased efficacy & reduced

toxicity.

## Sommario/riassunto

The application of drug delivery is a valuable, cost-effective lifecycle management resource. By endowing drugs with new and innovative therapeutic benefits, drug delivery systems extend products' profitable lifecycle, giving pharmaceutical companies competitive and financial advantages, and providing patients with improved medications. Formulation development is now being used to create new dosage forms for existing products, which not only reduces the time and expense involved in new drug development, but also helps with regard to patent protection and bypassing existing patents. Today's culture demands convenience, a major factor determining adherence to drug therapy. Over the past few years, patient convenience-oriented research in the field of drug delivery has yielded a range of innovative drug-delivery options. As a result, various drug-delivery systems, including medicated chewing gums, oral dispersible tablets, medicated lozenges and lollipops, have now hit the market and are very popular. These dosage forms offer a highly convenient way to dose medications, not only for special population groups with swallowing difficulties, such as children and the elderly, but for the general populace as well. This book provides valuable insights into a number of formulation design approaches that are currently being used, or could be used, to provide new benefits from existing drug molecules.