

1. Record Nr.	UNINA9910797122703321
Autore	Li Jie Jack
Titolo	Top drugs : history, pharmacology, syntheses // Jie Jack Li
Pubbl/distr/stampa	New York, New York : , : Oxford University Press, , 2015 ©2015
ISBN	0-19-756291-4 0-19-936260-2 0-19-936259-9
Descrizione fisica	1 online resource (219 p.)
Collana	Oxford scholarship online
Classificazione	MED071000SCI013060
Disciplina	615.1
Soggetti	Drugs - History Drugs - Design Pharmaceutical chemistry
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Previously issued in print: 2015.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Top Drugs History, Pharmacology, and Syntheses; Copyright; Dedication; Contents; Preface; Cardiovascular Drugs; Chapter 1: Atorvastatin Calcium (Lipitor); 1 HISTORY; 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 SYNTHESIS; 3.1 Discovery Route; 3.2 Process Route; 4 CONCLUDING REMARKS; 5 REFERENCES; Chapter 2: Clopidogrel Bisulfate (Plavix); 1 HISTORY; 2 PHARMACOLOGY; 2.1 Bioavailability, Metabolism, and Toxicology; 2.2 Mechanism of Action; 2.3 Structure-Activity Relationship; 3 SYNTHESIS 3.1 Discovery Route3.2 Process Route; 3.3 Synthesis of Radio-labeled API; 4 CONCLUDING REMARKS; 5 REFERENCES; Chapter 3: Amlodipine (Novasc); 1 HISTORY; 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 SYNTHESIS; 3.1 Discovery Route; 3.2 Process Route; 4 CONCLUDING REMARKS; 5 REFERENCES; Cancer Drugs; Chapter 4: Paclitaxel (Taxol); 1 HISTORY; 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 PROCESS SEMI-SYNTHESIS; 4 TOTAL

SYNTHESIS

4.1 Holton's Synthesis; 4.2 Nicolaou's Synthesis; 4.3 Danishefsky's Synthesis; 4.4 Wender's Synthesis; 5 CONCLUDING REMARKS; 6 REFERENCES; Chapter 5: Imatinib Mesylate (Gleevec); 1 HISTORY; 1.1 A Brief History of Cancer Drugs; 1.2 Treatments of Chronic Myeloid Leukemia; 1.3 Protein Kinase Inhibitors; 1.4 Genesis of Gleevec; 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 SYNTHESIS; 3.1 Discovery Synthesis; 3.2 Process Synthesis; 4 CONCLUDING REMARKS; 5 REFERENCES; Drugs for Metabolic Diseases Chapter 6: Sitagliptin (Januvia) 1 HISTORY OF DIABETES AND DIABETIC DRUGS; 1.1 Sulfonylureas; 1.2. Biguanides; 1.3 PPAR Agonists ; 2 PHARMACOLOGY; 2.1 Mechanism of Action ; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 SYNTHESIS; 3.1 Discovery Synthesis; 3.2 Process/Manufacturing Synthesis; 4 CONCLUDING REMARKS; 5 REFERENCES; CNS Drugs; Chapter 7: Duloxetine Hydrochloride (Cymbalta) ; 1 HISTORY OF DEPRESSION AND ANTIDEPRESSANTS; 1.1 Monoamine Oxidase Inhibitors; 1.2 Tricyclic Antidepressants; 1.3 Selective Serotonin Reuptake Inhibitors 1.4 Serotonin and Norepinephrine Reuptake Inhibitors 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology ; 3 SYNTHESIS; 3.1 Discovery Route; 3.2 Process Route; 4 CONCLUDING REMARKS; 5 REFERENCES; Chapter 8: Olanzapine (Zyprexa) ; 1 HISTORY OF SCHIZOPHRENIA AND ANTIPSYCHOTIC DRUGS ; 1.1 Typical Antipsychotics-The First Generation; 1.2 Atypical Antipsychotics-The Second Generation; 2 PHARMACOLOGY; 2.1 Mechanism of Action; 2.2 Structure-Activity Relationship; 2.3 Bioavailability, Metabolism, and Toxicology; 3 SYNTHESIS 3.1 Discovery Route

Sommario/riassunto

'Top Drugs' provides an in-depth study on ten prominent drugs, outlining the chemistry behind each one's creation. Jie Jack Li, a medicinal chemist and an expert on drug discovery, offers a thorough analysis of the landscape of current drug development. The comprehensive text is divided by health issues, including cardiovascular, cancer, metabolic diseases, and infectious diseases. Each section features individual chapters on significant drugs, outlining the chemistry and history of the drug's discovery.
