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Descrizione fisica	1 online resource (840 p.)
Collana	Wiley series in drug discovery and development
Altri autori (Persone)	EkinsSean
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	The history of computers in pharmaceutical research and development: a narrative / Donald B. Boyd and Max M. Marsh -- Computers as data analysis and data management tools in preclinical development / Weiyong Li and Kenneth Banks -- Statistical modeling in pharmaceutical research and development / Andrea de Gaetano ... [et al.] -- Drug discovery from historic herbal texts / Eric J. Buenz -- Contextualizing the impact of bioinformatics on preclinical drug and vaccine discovery / Darren R. Flower -- Systems approaches for pharmaceutical research and development / Sean Ekins and Craig Giroux -- Information management-biodata in life sciences / Richard K. Scott and Anthony Parsons -- Chemoinformatics techniques for processing chemical structure databases / Valerie J. Gillet and Peter Willett -- Electronic laboratory notebooks / Alfred Nehme and Robert A. Scoffin -- Strategies for using information effectively in early-stage drug discovery / David J. Wild -- Improving the pharmaceutical R&D

process: how simulation can support management decision making / Andrew Chadwick ... [et al.] --
Computers and protein crystallography / David J. Edwards and Roderick E. Hubbard -- Computers, cheminformatics, and the medicinal chemist / Weifan Zheng and Michael Jones -- The challenges of making useful protein-ligand free energy predictions for drug discovery / Jun Shimada -- Computer algorithms for selecting molecule libraries for synthesis / Konstantin V. Balakin, Nikolay P. Savchuk, and Alex Kiselyov -- Success stories of computer-aided design / Hugo Kubinyi -- Pharmaceutical research and development productivity: can software help? / Christophe Lambert and S. Stanley Young -- Computer methods for predicting drug metabolism / Sean Ekins -- Computers in toxicology and risk assessment / John C. Dearden -- Computational modeling of drug disposition / Cheng Chang and Peter W. Swaan -- Computer simulations in pharmacokinetics and pharmacodynamics: rediscovering systems physiology in the 21st century / Paolo Vicini -- Predictive models for better decisions from understanding physiology to optimizing trial design / James R. Bosley, Jr --
Making pharmaceutical development more efficient / Michael Rosenberg and Richard Farris -- Use of interactive software in medical decision making / Renee J. Goldberg Arnold -- Clinical data collection and management / Mazen Abdellatif -- Regulation of computer systems / Sandy Weinberg -- A new paradigm for analyzing adverse drug events / Ana Szarfman, Jonathan G. Levine and Joseph M. Tonning -- Computers in pharmaceutical formulation / Raymond C. Rowe and Elizabeth A. Colbourn -- Legal protection of innovative uses of computers in R&D / Robert Harrison -- The ethics of computing in pharmaceutical research / Matthew K. McGowan and Richard J. McGowan -- The UltraLink: an expert system for contextual hyperlinking in knowledge management / Martin Romacker ... [et al.] -- Powerful, predictive and pervasive: the future of computers in the pharmaceutical industry / Nick Davies, Heather Ahlborn, Stuart Henderson.

Sommario/riassunto

A unique, holistic approach covering all functions and phases of pharmaceutical research and developmentWhile there are a number of texts dedicated to individual aspects of pharmaceutical research and development, this unique contributed work takes a holistic and integrative approach to the use of computers in all phases of drug discovery, development, and marketing. It explains how applications are used at various stages, including bioinformatics, data mining, predicting human response to drugs, and high-throughput screening. By providing a comprehensive view, the book offers read