

1. Record Nr.	UNINA9910298438603321
Titolo	Accelerated Path to Cures / / edited by Josep Bassaganya-Riera
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2018
ISBN	3-319-73238-2
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (88 pages)
Disciplina	615.190285
Soggetti	Immunology Bioinformatics Medical informatics Computational biology Computational Biology/Bioinformatics Health Informatics Computer Appl. in Life Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1: Introduction to Accelerated Path to Cures and Precision Medicine in Inflammatory Bowel Disease -- Chapter 2: Computer-Aided Drug Discovery -- Chapter 3: Preclinical Studies: Efficacy and Safety -- Chapter 4: From Nutritional Immunology to Drug Development -- Chapter 5: Development of Synthetic Patient Populations and In Silico Clinical Trials.
Sommario/riassunto	Accelerated Path to Cures provides a transformative perspective on the power of combining advanced computational technologies, modeling, bioinformatics and machine learning approaches with nonclinical and clinical experimentation to accelerate drug development. This book discusses the application of advanced modeling technologies, from target identification and validation to nonclinical studies in animals to Phase 1-3 human clinical trials and post-approval monitoring, as alternative models of drug development. As a case of successful integration of computational modeling and drug development, we discuss the development of oral small molecule therapeutics for inflammatory bowel disease, from the application of docking studies to

screening new chemical entities to the development of next-generation in silico human clinical trials from large-scale clinical data. Additionally, this book illustrates how modeling techniques, machine learning, and informatics can be utilized effectively at each stage of drug development to advance the progress towards predictive, preventive, personalized, precision medicine, and thus provide a successful framework for Path to Cures. .

---