

1. Record Nr.	UNINA9910830907803321
Titolo	Biomedical nanomaterials / / edited by Yuliang Zhao and Youqing Shen
Pubbl/distr/stampa	Weinheim, Germany : , : Wiley-VCH, , 2016 ©2016
ISBN	3-527-69441-2 3-527-69443-9 3-527-69439-0
Descrizione fisica	1 online resource (501 p.)
Disciplina	610.28
Soggetti	Biomedical materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Title Page; Copyright; Contents; List of Contributors; Chapter 1 Pharmacokinetics and Pharmacodynamics (PK/PD) of Bionanomaterials; 1.1 Introduction; 1.2 Commonly Utilized NMs in Pharmaceutical Research; 1.2.1 Natural NMs; 1.2.1.1 Lipid-Based NMs; 1.2.1.2 Protein-Based NMs; 1.2.1.3 Polysaccharide-Based NMs; 1.2.2 Synthetic NMs; 1.2.2.1 Diversity of Synthetic NMs in Forms; 1.2.2.2 Drug Release Behaviors; 1.2.3 Inorganic NMs; 1.2.4 Other NMs; 1.3 In vivo Biodistribution and the Evolving Targeting Principles for NMs; 1.3.1 Organ Distribution versus Cell-Specific Targeting 1.3.2 Targeting Delivery Strategies 1.4 Processing NMs by the Biological Systems; 1.4.1 Anatomic Basis of NMs' in vivo Biodistribution Behavior; 1.4.2 Factors Affecting in vivo Biodistribution of NMs; 1.4.2.1 Size; 1.4.2.2 Zeta Potential; 1.4.2.3 Shape and Deformability; 1.4.2.4 Hydrophilicity and Hydrophobicity; 1.4.3 Metabolism and Elimination of NMs; 1.4.3.1 Common Metabolism; 1.4.3.2 Degradable versus Nondegradable NMs; 1.4.3.3 Free Drug versus Drug Encapsulated by NMs; 1.5 Rational Design of Long-Circulating NMs; 1.5.1 NMs with Optimal Physicochemical Characters 1.5.2 Surface Modification to Improve the Intrinsic Features of NMs 1.6 Mathematic Simulation of NM-Mediated Cancer Drug Delivery; 1.6.1 Progress: From Experiment to Simulation; 1.6.2 Compartment Models

for PK Assessment of NMs; 1.6.3 Physiologically Based Compartment Models; 1.6.3.1 Protocols of Building a PBPK Model for NMs; 1.6.3.2 Examples; 1.6.4 Brief Summary; 1.7 Experimental PK Data of the Applied NMs; 1.7.1 PK Data of NMs Without Drugs; 1.7.2 PK Differences Between Drugs Encapsulated by Different NMs; 1.7.3 Reciprocal Blood and Tissue PK

1.7.4 PK Differences Between Different Components of the Drug-NM System1.7.5 PK Variations Among Different Routes of Administration;

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2.3.4 Targeted Dendrimers in NIR Fluorescence Imaging

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