## << Physiologically base>>

#### 图书基本信息

书名: <<Physiologically based pharmacokinetic modeling生理学上基于药物动力学的建模>>

13位ISBN编号: 9780471478140

10位ISBN编号: 0471478148

出版时间:2005-6

出版时间: John Wiley & Sons Inc

作者: Reddy, Micaela B. (EDT)/ Yang, Raymond S. H., Ph.D. (EDT)/ Clewell, Harvey J., III (EDT)/ Andersen,

Melvin E., Ph.D. (EDT)

页数:420

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

### << Physiologically base>>

#### 内容概要

A definitive, single source of information on PBPK modeling Physiologically-based pharmacokinetic (PBPK) modeling is becoming increasingly important in human health risk assessments and in supporting pharmacodynamic modeling for toxic responses. Organized by classes of compounds and modeling purposes so users can quickly access information, this is the first comprehensive reference of its kind. This book presents an overview of the underlying principles of PBPK model development. Then it provides a compendium of PBPK modeling information, including historical development, specific modeling challenges, and current practices for:

\* Halogenated Alkanes \* Halogenated Alkanes \* Posticides and \* Posticides \* Postici

Vapors in the Nasal Cavity \* Alkanes, Oxyhydrocarbons, and Related Compounds \* Pesticides and Persistent Organic Pollutants \* Dioxin and Related Compounds \* Metals and Inorganic Compounds

\* Drugs \* Antineoplastic Agents \* Perinatal Transfer \* Mixtures \* Dermal Exposure Models In addition to pinpointing specific information, readers can explore diverse modeling techniques and applications. An authoritative reference for toxicologists, ecotoxicologists, risk assessors, regulators, pharmacologists, pharmacists, and graduate students in pharmacokinetics and toxicology, Physiologically-Based Pharmacokinetic Modeling compiles information from leaders in the field and discusses future directions for PBPK modeling.

# << Physiologically base>>

### 书籍目录

Preface Acknowledgments Contributors Chapter 1 Introduction: A Historical Perspective of the Development				
and Applications of PBPK Models 1 Introduction 2 A Historical Perspective 2-1 Responses to				
Inhaled Compounds 2-2 Pharmaceutical Applications 2-3 Occupational and Environmental				
Applications 2-4 Digital Computation and PBPK Modeling 3 Expansion of PBPK Model				
Applications 3-1 PBPK Models for Tissue Dosimetry from Secondary Data 3-2 Biological				
Mechanisms Underlying PK Behaviors 3-3 Chemicals as Probes of Biological Processes 3-4 Risk				
Assessment Applications 3-5 PBPK Models as Repository of Mechanistic Data on Distribution and				
Response 4 Summary PART I: PBPK MODELING FOR VOLATILE ORGANIC COMPOUNDS				
Chapter 2 Halogenated Alkanes 1 Introduction 2 PBPK Model Development for Volatile Organics				
2-1 Model Formulation 2-2 Model Equations 2-3 Model Parameterization 2-4 Model				
Calculations 3 Advances in Experimental Methods Demonstrated for Groups of Chemicals 4 PBPK				
Models for Halogenated Alkanes 4-1 Anesthetic Gases 4-2 Chlorofluorocarbons (CFCs),				
Refrigerants and Halons 4-3 Halogenated Alkanes 5 Summary Chapter 3 Halogenated				
Alkenes 1 Introduction 2 The Chloroethylenes: Background 3 Review of PBPK Models 3-1				
Vinyl Chloride (VC) 3-2 Vinyl Fluoride (VF) 3-3 cis-1,2-Dichloroethylene (cDCE) and				
trans-1.2-Dichloroethylene (tDCE) 3-4 Vinylidene Chloride (VDC) 3-5 Trichloroethylene (TCE)				
trans-1,2-Dichloroethylene (tDCE) 3-4 Vinylidene Chloride (VDC) 3-5 Trichloroethylene (TCE) 3-6 Tetrachloroethylene (PERC) 3-7 Allyl Chloride (AC) 3-8 b-Chloroprene (CD)				
3-9 Hexachlorobutadiene, HCB 4 Summary Chapter 4 Alkene and Aromatic Compounds 1				
Introduction 2 PK and Pharmacodynamic Properties Important in PBPK Model Development for Aromatic				
and Alkene Compounds 2-1 Metabolism and Mode of Action 2-2 Model Structures 2-3				
PK Differences 2-4 Extrahepatic Metabolism and Transport of Metabolites 2-5 GSH Conjugation				
2-6 Endogenous Production 2-7 Reactivity with DNA and Protein 2-8 Inhibition of Second				
Oxidative Steps 2-9 Variability and PK Differences 2-10 Subcompartments in PBPK Models				
2-11 " Privileged Access " of Epoxide Hydratase to Epoxide Substrates 3 Review of Aromatic and Alkene				
PBPK Models 3-1 Benzene-A Known Human Carcinogen with an Uncertain Mode of Action 3-2				
Styrene- Early PBPK Models 3-3 1,3-Butadiene 3-4 Isoprene 3-5 Ethylene, Propylene and				
their Oxides 3-6 Naphthalene and Other PAHs 3-7 Halobenzenes 3-8 Miscellaneous				
Related Compounds 4 Summary Chapter 5 Reactive Vapors in the Nasal Cavity 1 Introduction				
1-1 Nasal Effects and Risk Assessment 1-2 General Models for Nasal Uptake 1-2-1 Air Phase				
1-2-2 Specific Nasal Regions 1-2-3 Air Phase Mass Transfer Coefficients 1-2-4 Interfacial				
Mass Transfer Coefficient 1-2-5 Tissue Diffusion 2 No Air-Phase Models 2-1 The				
"Perfused Nose" Model 2-2 Vinyl Acetate 3 Creating the Air Phase Compartments 3-1				
Computational Fluid Dynamics 3-2 Estimating the Air Phase Mass Transfer Coefficient 3-3				
Estimating Air Phase Mass Transfer Coefficients — Acrylic Acid 4 Other Models for Vapors Affecting Nasal				
Tissues 4-1 Vinyl Acetate 4-2 Ethyl Acrylate and its Metabolite, Acrylic Acid 4-2				
Epichlorohydrin 5 Methyl Methacrylate 6 Formaldehyde 7 Hydrogen Sulfide 10 Summary				
Chapter 6 Alkanes, Oxyhydrocarbons, and Related Compounds 1 Introduction 2 Purposes for PBPK				
Model Development 3 PBPK Models for Four Classes of Compounds 3-1 Alkanes 3-2				
Oxyhydrocarbons 3-3 Alkylbenzenes 3-4 Siloxanes 4 Summary PARK II: PBPK MODEL				
DEVELOPMENT FOR ENVIRONMENTAL POLLUTANTS Chapter 7 Pesticides and Persistent Organic				
Pollutants (POPs) 1 Introduction 2 Pesticides 2-1 Chemical Classes of Pesticides 2-2				
Modeling Tissue Distribution 2-3 Modeling Metabolism 2.4 Summary of Individual Models 3				
in dating induce blank and in the dating in				
Polychlorinated and Polybrominated Biphenyls, PCBs and PBBs 3-1 Modeling in Mammals 3-2				
· · · · · · · · · · · · · · · · · · ·				
Polychlorinated and Polybrominated Biphenyls, PCBs and PBBs 3-1 Modeling in Mammals 3-2				

# << Physiologically base>>

Metabolism, and Excretion	4-2 Distribution	5 PBPK Models of TCDD	5-1 PBPK Models of
TCDD in Rodents	5-2 PBPK Models of TCDD	in Humans 6 Summary	Chapter 9 Metals and
Inorganic Compounds	1 Introduction 2 Phy	siologically Based Modeling of	of Metals 2-1 Arsenic Non-Metals 3-1 A
2-2 Nickel 2	?-3 Lead 2-4 Chrom	ium 3 PBPK Models for	Non-Metals 3-1 A
PBPK Model for Fluoride, a	Bone-Seeking Non-Metal	3-2 PBPK Mo	odels for Other Non-Metals
4 Compartmental Mode	ls for Miscellaneous Inorgan	nic and/or Endogenous Chem	nicals 5 Research Needs
5-1 The Need for Pl	hysiologically Based Modeli	ng for Essential Metals	5-2 Other Research Needs
6 Summary PART III:	PHARMACEUTICAL AP	PLICATIONS OF PBPK MC	ODELS Chapter 10 Drugs
1 Introduction 2 De	scribing the Tissue Distribu	tion of Drugs 3 Describi	ing Metabolism and Other
Clearance Processes of Dru	gs 4 Other Issues in Mo	odel Development for Drugs	4-1 Altered
Physiological States	4-2 Drug Stereospecificity	4-3 Non Steady-State	Dynamics 4-4 Drug
Interactions 4-5 Uti	lization of In Vitro Data	5 Future Perspectives	6 Summary Chapter 11
Antineoplastic Agents	1 Introduction 2 PBPk	K Models for Antineoplastic A	Agents 2-1
Methotrexate 2-2 ci	s-Dichlorodiammine-platin	num 2-3 Actinomycir	n D 2-4
2-Deoxycoformycin (Pento	ostatin) 2-5 5-Fluoro	ouracil 2-62-Amino-	n D 2-4 1,3,4-thiadiazole 2-7 1-
<ul> <li>-D-Arabinofuranosylcyte</li> </ul>	osine 2-8 Adriamyci	in 2-9 Melphalan	2-10 Topotecan
2-11 17-(Allylamino)-17	-demethoxygeldanamycin	3 Summary PART IV: P	BPK MODELING
			okinetics 1 Introduction
			Weight Changes and Organ
Growth 2-2 Physiol	ogical and Biochemical Cha	anges in Pregnant Females	2-3 Physiological
			2-5 Mechanisms of
			to PBPK Models for Perinatal
			ne and Cardiac Output in the
Mother 3-3 Chemic	cal Transfer through the Plac	centa and Mammary Gland	4 PBPK Models for
Perinatal Transfer 4	-1 Tetracycline 4-2 !	Morphine 4-3 Theop	hylline 4-4 Methadone
4-5 Pethidine	4-6 Trichloroethylene	4-7 5,5 '-Dimethyloxa	hylline 4-4 Methadone zolidine-2,4-dione (DMO) id 4-10 Methylmercury
(MeHg) 4-11 2,4-D	ichlorophenoxyacetic Acid	(2,4-D) 4-12 Methar	nol 4-13 Vitamin A
Acid 4-14 Organic S	Solvents 4-15 p-Phe	nylbenzoic Acid (PPBA)	4-16 p,p
'-Dichloro-2,2-bis(p-chlo	orophenyl)ethylene (DDE)	4-17 2-Ethox	yethanol and Ethoxyacetic
			nmary Chapter 13 Mixtures
		cal Mixtures 2-1 Earlie	•
•		BPK Modeling of Higher Or	
	ration PBPK/PD modeling		4 Dermal Exposure Models
	ctors to Consider in Modeli	=	3 Dermal Absorption Models
3-1 Membrane Mo	<u>'</u>	<del>-</del>	
•		•	ems Approach for
	lodeling Both Dose and Res	· · · · · · · · · · · · · · · · · · ·	or PBPK Modeling in
Pharmaceutical Industry		deling with Xenobiotics	6 Systems Biology and
Dose-Response 7 Sum	nmary Index		

# << Physiologically base>>

#### 版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com