

Contents

Contributors	ix	13 Toxic Responses of the Liver..... 719	Robert A. Roth, Hartmut Jaeschke, and James P. Luyendyk
Preface	xv	14 Toxic Responses of the Kidney..... 767	Rick G. Schnellmann
Preface to the First Edition	xvii	15 Toxic Responses of the Respiratory System..... 793	George D. Leikauf
Unit I			
General Principles of Toxicology 1			
1. The Evolving Journey of Toxicology: A Historical Glimpse	3	16 Toxic Responses of the Nervous System..... 839	Virginia C. Moser, Michael Aschner, Jason R. Richardson, Aaron B. Bowman, and Rudy J. Richardson
Philip Wexler and Antoinette N. Hayes		17 Toxic Responses of the Cornea, Retina, and Central Visual System..... 877	Donald A. Fox and William K. Boyes
2. Principles of Toxicology	25	18 Toxic Responses of the Heart and Vascular System..... 909	Matthew J. Campen
Lauren M. Aleksunes and David L. Eaton		19 Toxic Responses of the Skin..... 953	Donald V. Belsito
3. Mechanisms of Toxicity..... 65		20 Toxic Responses of the Endocrine System	977
Lois D. Lehman-McKeeman		Patricia B. Hoyer and Jodi A. Flaws	
4. Risk Assessment	127	21 Toxic Responses of the Reproductive System	1003
Elaine M. Faustman		Paul M.D. Foster and L. Earl Gray Jr.	
Unit II			
Disposition of Toxicants 157			
5 Absorption, Distribution, and Excretion of Toxicants..... 159		Unit V	
Angela L. Slitt		Toxic Agents 1053	
6 Biotransformation of Xenobiotics	193	22 Toxic Effects of Pesticides..... 1055	Lucio G. Costa
Andrew Parkinson, Brian W. Ogilvie, David B. Buckley, Faraz Kazmi and Oliver Parkinson		23 Toxic Effects of Metals..... 1107	Alexander C. Ufelle and Aaron Barchowsky
7 Toxicokinetics..... 401		24 Toxic Effects of Solvents and Vapors	1163
Kannan Krishnan		James V. Bruckner, S. Satheesh Anand, and D. Alan Warren	
Unit III			
Non-Organ-Directed Toxicity 431			
8 Chemical Carcinogenesis..... 433		25 Toxic Effects of Radiation and Radioactive Materials	1257
James E. Klaunig and Zemin Wang		David G. Hoel	
9 Genetic Toxicology	497	26 Toxic Effects of Plants and Animals..... 1275	John B. Watkins, III
Joanna Klapacz and B. Bhaskar Gollapudi		27 Food Toxicology: Fundamental and Regulatory Aspects	1315
10 Developmental Toxicology	547	Supratim Choudhuri, Ronald F. Chanderbhan, and Antonia Mattia	
John M. Rogers		28 Toxic Effects of Calories	1361
Unit IV			
Target Organ Toxicity 591			
11 Toxic Responses of the Blood	593	Martin J.J. Ronis, Kartik Shankar, and Thomas M. Badger	
Martyn T. Smith and Cliona M. McHale		29 Nanoparticle Toxicology..... 1381	David B. Warheit, Günter Oberdörster, Agnes B. Kane, Scott C. Brown, Rebecca D. Klaper, and Robert H. Hurt
12 Toxic Responses of the Immune System	633		
Barbara L.F. Kaplan, Courtney E.W. Sulentic, Helen G. Haggerty, Michael P. Holsapple, and Norbert E. Kaminski			

Unit VI**Environmental Toxicology 1431**

- 30 Ecotoxicology 1433
Richard T. Di Giulio and Michael C. Newman
- 31 Air Pollution 1465
Daniel L. Costa and Terry Gordon

Unit VII**Applications of Toxicology 1509**

- 32 Analytical and Forensic Toxicology 1511
Bruce A. Goldberger, Dayong Lee, and Diana G. Wilkins
- 33 Clinical Toxicology 1531
Louis R. Cantilena, Jr.
- 34 Occupational Toxicology 1551
Peter S. Thorne
- 35 Regulatory Toxicology 1573
Gary E. Marchant

Index 1587