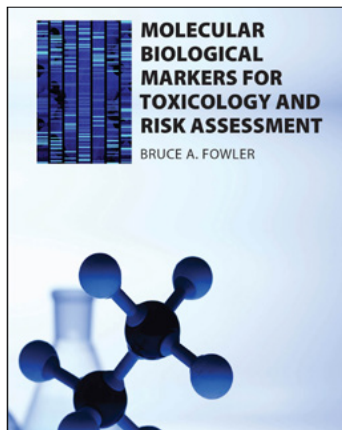
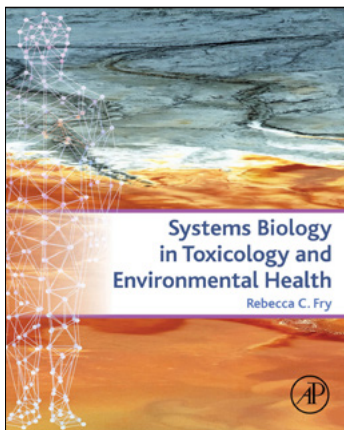
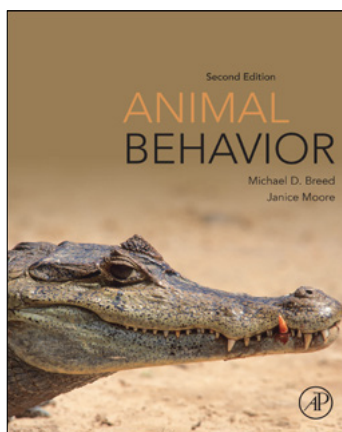
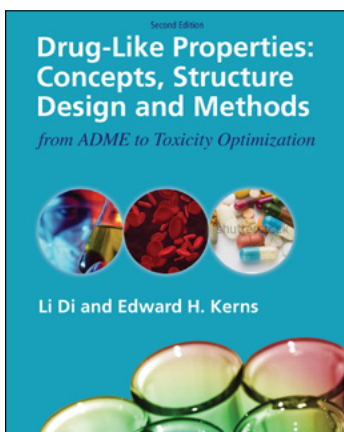




# PHARMACOLOGY, TOXICOLOGY & PHARMACEUTICAL SCIENCE



## 2016 CATALOG



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## Developing Therapeutics for Alzheimer's Disease

### Progress and Challenges

*Michael S. Wolfe* Professor of Neurology, Ann Romney Center for Neurologic Diseases, Brigham and Women's Hospital and Harvard Medical School, Boston, Massachusetts



**This compilation provides a thorough overview of the latest research and challenges associated with developing therapeutics for Alzheimer's disease**

#### KEY FEATURES

- Provides a realistic but promising assessment of the potential of various therapeutic approaches to Alzheimer's disease
- Focuses primarily on neuroprotective agents and cognitive enhancers, as well as approaches to targeting the amyloid  $\beta$ -peptide, tau and Apolipoprotein E
- Discusses alternative approaches, preclinical and clinical development issues, related biomarkers and diagnostics, and prevention and nonpharmacological approaches
- Features input from international leaders in the field

#### DESCRIPTION

*Developing Therapeutics for Alzheimer's Disease: Progress and Challenges* provides a thorough overview of the latest advances toward the development of therapeutics for Alzheimer's disease, along with the major hurdles that still must be overcome and potential solutions to these problems. Despite the lack of progress toward developing therapeutics that can slow or stop the progression of this disease, important discoveries have been made and many promising approaches are advancing in preclinical studies and clinical trials. This book outlines the special challenges related to specific targets and approaches, while presenting a realistic, comprehensive and balanced view of drug discovery and development in this area.

Written by international leaders in the field, the book assesses prospects for the emergence of effective agents and allows readers to better understand the challenges, failures, and future potential for research in Alzheimer's disease. This book is a valuable resource to academic scientists carrying out translational research in Alzheimer's disease, industrial scientists engaged in Alzheimer's drug discovery, executives in biopharmaceutical companies making strategic decisions regarding the direction of internal research and potential outside partnerships, and graduate-level students pursuing courses on Alzheimer's therapeutics.

**ISBN:** 978-0-12-802173-6

**PUB DATE:** July 2016

**FORMAT:** Hardback

**PAGES:** c. 656

#### AUDIENCE

Academic and industry research scientists developing therapeutics for Alzheimer's disease; pharmaceutical executives; venture capitalists; funding and resource allocation strategists; graduate students in pharmacology, neuroscience and other biomedical fields

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**ISBN:** 978-0-12-804148-2

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 104

**AUDIENCE**

Pharmaceutical personnel, including research and development professionals, pharmaceutical consultants, team leaders and department heads

## How to Validate a Pharmaceutical Process

*Part of the Expertise in Pharmaceutical Process Technology Series*

Steven Ostrove Ostrove Associates, Inc. Elizabeth, NJ, USA



**This essential research companion for practitioners engaged in pharmaceutical process validation features a how-to approach to develop and implement a sustainable pharmaceutical process validation program and case studies covering topics such as lifecycle approach, quality by design, risk assessment, critical process parameters, and regulatory guidelines**

### KEY FEATURES

- Thoroughly referenced and based on the latest research and literature
- Addresses practical problems and offers solutions to qualify and validate a pharmaceutical process
- Illustrates the most common issues related to developing and implementing a sustainable process validation program and provides valuable examples on how to be successful
- Contains numerous case studies throughout and covers important topics such as the lifecycle approach, quality by design, risk assessment, critical process parameters, US and international regulatory guidelines, and more

### DESCRIPTION

*How to Validate a Pharmaceutical Process*, part of the *Expertise in Pharmaceutical Process Technology* series, provides a “how to” approach to developing and implementing a sustainable pharmaceutical process validation program.

This latest entry in the series addresses practical problems and offers solutions to qualify and validate a pharmaceutical process. It contains numerous case studies throughout and covers important topics such as the lifecycle approach, quality by design, risk assessment, critical process parameters, US and international regulatory guidelines, and more.

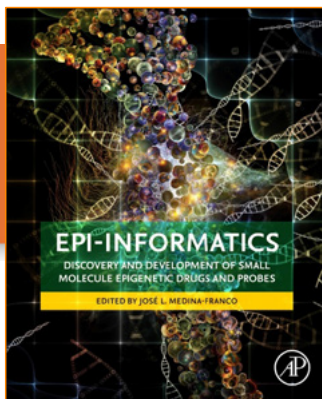
This book illustrates the methods and reasoning behind processes and protocols. Understanding the “why” is critical to a successful and defensible process validation, making this book an essential research companion for all practitioners engaged in pharmaceutical process validation.

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**ISBN:** 978-0-12-802808-7

**PUB DATE:** May 2016

**FORMAT:** Paperback

**PAGES:** c. 424

**AUDIENCE**

Pharmaceutical scientists, medicinal chemists, modelers and informaticians, biological scientists working with epigenetics in industry, academia, and non-for profit organizations working on drug discovery of epi-drugs, as well as graduate students in courses related to epigenetics, drug discovery and development, computer-aided drug design and cancer biology

## Epi-Informatics

### *Discovery and Development of Small Molecule Epigenetic Drugs and Probes*

Edited by: **José Medina-Franco** Professor, Department of Pharmacy, Universidad Nacional Autónoma de México, Mexico City, Mexico



This helpful research companion is for those wanting to learn more about computational methodologies in epigenetic drug discovery, including how to conduct research to improve current computational methodologies and accelerate the discovery and development of epi-drugs and epi-probes

#### KEY FEATURES

- Focuses on the discovery of epi-drugs as candidates to be used in therapy including combined therapies
- Describes new computational methodologies and screening assays utilizing recent and emerging novel structural data
- Highlights the discovery, development and optimization of epi-probes, which are molecular probes that elucidate epigenetic mechanisms
- Includes important topics such as computational-guided optimization of epi-hits, virtual screening to identify novel compounds for epigenetic targets, development and mining of epigenetic molecular databases, SAR modeling of screening data and much more

#### DESCRIPTION

*Epi-Informatics: Discovery and Development of Small Molecule Epigenetic Drugs and Probes* features multidisciplinary strategies with strong computational approaches that have led to the successful discovery and/or optimization of compounds that act as modulators of epigenetic targets. This book is intended for all those using or wanting to learn more about computational methodologies in epigenetic drug discovery, including molecular modelers, informaticians, pharmaceutical scientists, and medicinal chemists.

With a better understanding of different molecular modeling and cheminformatic approaches, readers can incorporate these techniques into their own drug discovery projects that may involve chemical synthesis and medium- or high-throughput screening. In addition, this book highlights the significance of epigenetic targets to the public health for molecular modelers and chemoinformaticians. The goal of this reference is to stimulate ongoing multidisciplinary research and to further improve current computational methodologies and workflows in order to accelerate the discovery and development of epi-drugs and epi-probes.

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Odilia Osakwe and Syed Rizvi

# Social Aspects of Drug Discovery, Development and Commercialization



**ISBN:** 978-0-12-802220-7

**PUB DATE:** March 2016

**FORMAT:** Paperback

**PAGES:** c. 294

## AUDIENCE

Graduate and postgraduate students in pharmaceutical science, pharmacology and toxicology; policy-makers; professionals with interest in the current, past and future performance of the pharmaceutical market

## Social Aspects of Drug Discovery, Development and Commercialization

**Odilia Osakwe** Industrial BioDevelopment Laboratory, UHN-MaRS Centre, Toronto Medical Discovery Tower and Ryerson University, Toronto, Canada  
**Syed A.A. Rizvi** Associate Professor of Pharmaceutical Sciences at the College of Pharmacy, Nova Southeastern University, Fort Lauderdale, FL, USA



**This informative book provides a thorough discussion and analysis of the social factors that affect and influence the drug discovery and development processes, including analysis of important new advances, key scientific and strategic issues, and overviews of recent progress in drug development**

## KEY FEATURES

- Organized in a sequence of interrelated theories and principles that provide the foundation for increased understanding of the relevant social aspects
- Includes analysis of important new advances, key scientific and strategic issues, and overviews of recent progress in drug development
- Provides a global perspective with examples from developed areas, such as the US, Japan, Canada and Europe, as well as faster-growing and emerging economies including Brazil, Russia, India, and China
- Serves as an essential resource for students, professors, and researchers who seek a better understanding of the interface between the pharmaceutical industry, health care systems, and society

## DESCRIPTION

*Social Aspects of Drug Discovery, Development and Commercialization* provides an insightful analysis of the drug discovery and development landscape as it relates to society. This book examines the scientific, legal, philosophical, economic, political, ethical and cultural factors that contribute to drug development. The pharmaceutical industry is under scrutiny to develop safer and more effective drugs in a quicker and more affordable manner. Recent criticism and debates have emphasized varying opinions on the issues concerning the drug discovery and development process.

This book provides thoughtful and valuable discussions and analysis of the social challenges and potential opportunities through all stages of the pharmaceutical process, from inception through marketing. With a unique focus on the social factors that increasingly play a role in how drug development is planned, structured, and executed throughout the drug product lifecycle, this is an essential resource for students, professors, and researchers who seek a better understanding of the interface between the pharmaceutical industry, health care systems, and society.

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## Pharmacy Practice in Developing Countries

Achievements and Challenges



Edited by  
Ahmed Ibrahim Fathelrahman  
Mohamed Ibrahim Mohamed Ibrahim  
Albert J. Wertheimer



**ISBN:** 978-0-12-801714-2

**PUB DATE:** February 2016

**FORMAT:** Paperback

**PAGES:** c. 484

### AUDIENCE

Professors, researchers, practicing pharmacists and pharmacy students globally, public health policy makers

## Pharmacy Practice in Developing Countries

### Achievements and Challenges

**Ahmed Fathelrahman** Assistant Professor of Pharmacy Practice and Head of the Department of Pharmacy Practice, Qassim University, Saudi Arabia

**Mohamed Ibrahim** PhD, Professor of Social & Administrative Pharmacy, College of Pharmacy, Qatar University, Doha, Qatar

**Albert Wertheimer** Professor of Pharmacy, Department of Pharmacy Practice, School of Pharmacy, Temple University, Philadelphia, PA



**This unique reference offers a detailed review of the history and development of pharmacy practice in developing countries—including their strengths and weaknesses—to provide a valuable comparison aimed at reforming and strengthening pharmacy practice on a global scale**

### KEY FEATURES

- Uses the latest research and statistics to document the history and development of pharmacy practice in developing countries
- Describes current practice across various pharmacy sectors to supply a valuable comparative analysis across countries in Africa, Asia, Europe, and South America
- Highlights areas of achievement, strengths, uniqueness, and future opportunities to provide a basis for learning and improvement
- Establishes a baseline for best practices and solutions

### DESCRIPTION

*Pharmacy Practice in Developing Countries: Achievements and Challenges* offers a detailed review of the history and development of pharmacy practice in developing countries across Africa, Asia, South America, and Europe. Pharmacy practice varies substantially from country to country due to variations in needs and expectations, culture, challenges, policy, regulations, available resources, and other factors.

This book focuses on each country's strengths and achievements, as well as areas of weakness, barriers to improvement and challenges. It sets out to establish a baseline for best practices, taking all of these factors into account and offering solutions and opportunities for the future. This book is a valuable resource for academics, researchers, practicing pharmacists, policy makers, and students involved in pharmacy practice worldwide as it provides lessons learned on a global scale and seeks to advance the pharmacy profession.

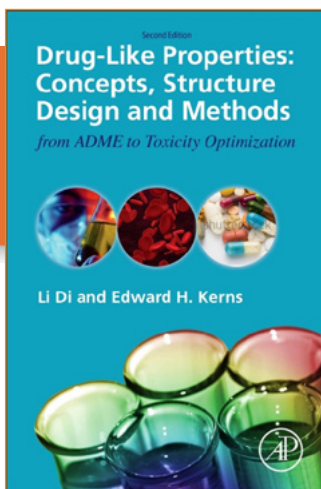
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**ISBN:** 978-0-12-801076-1

**PREVIOUS EDITION ISBN:**  
978-0-12-369520-8

**PUB DATE:** February 2016

**FORMAT:** Hardback

**PAGES:** c. 560

**AUDIENCE**

Chemists (especially in medicinal chemistry, pharma/drug development, organic synthesis) and Drug researchers (including pharmacologists and toxicologists) in private industry, research centers and government labs. Secondary academic market with chemistry & pharmacology students.

## Drug-Like Properties, 2e

*Concepts, Structure Design and Methods from ADME to Toxicity Optimization*

Li Di Pfizer, East Lyme, CT, USA

Edward Kerns National Institutes of Health, Bethesda, MD, USA



An essential ADMET (absorption, distribution, metabolism, elimination, toxicology) resource for selecting and advancing high quality drug candidates

### KEY FEATURES

- Provides a comprehensive and valuable working handbook for scientists and students in medicinal chemistry
- Includes expanded coverage of pharmacokinetics fundamentals and effects
- Contains updates throughout, including the authors' recent work in the importance of solubility in drug development; new and currently used property methods, with a reduction of seldom-used methods; and exploration of computational modeling methods

### DESCRIPTION

Of the thousands of novel compounds that a drug discovery project team invents and that bind to the therapeutic target, only a fraction have sufficient ADME (absorption, distribution, metabolism, elimination) properties, and acceptable toxicology properties, to become a drug product that will successfully complete human Phase I clinical trials. *Drug-Like Properties: Concepts, Structure Design and Methods from ADME to Toxicity Optimization, Second Edition*, provides scientists and students the background and tools to understand, discover, and develop optimal clinical candidates. This valuable resource explores physiochemical properties, including solubility and permeability, before exploring how compounds are absorbed, distributed, and metabolized safely and stably. Review chapters provide context and underscore the importance of key concepts such as pharmacokinetics, toxicity, the blood-brain barrier, diagnosing drug limitations, prodrugs, and formulation. Building on those foundations, this thoroughly updated revision covers a wide variety of current methods for the screening (high throughput), diagnosis (medium throughput) and in-depth (low throughput) analysis of drug properties for process and product improvement. From conducting key assays for interpretation and structural analysis, the reader learns to implement modification methods and improve each ADME property.

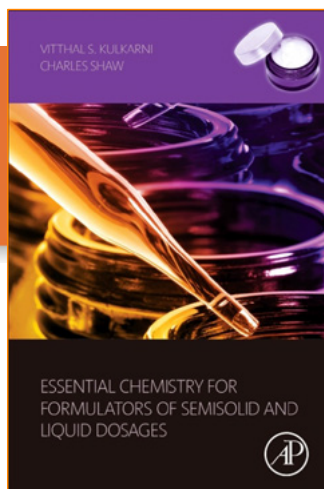
Through valuable case studies, structure-property relationship descriptions, and structure modification strategies, *Drug-Like Properties, Second Edition*, offers tools and methods for ADME/Tox scientists through all aspects of drug research, discovery, design, development, and optimization.

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**ISBN:** 978-0-12-801024-2

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 248

#### **AUDIENCE**

Scientists in pharmaceutical formulation, skin care/cosmetic formulators; secondarily, academics teaching pharmaceuticals

## Essential Chemistry for Formulators of Semisolid and Liquid Dosages

**Vitthal S. Kulkarni** Scientific Advisor, DPT Laboratories, San Antonio, Texas  
**Charles Shaw** Scientific Advisor, Research and Development, DPT Lakewood, LLC, Lakewood, NJ



**This comprehensive book on chemistry for semisolid and liquid dosages explores stability testing methods such as particle size, rheological/viscosity, microscopy, and chemistry, and closes with a valuable discussion of regulatory issues. It offers scientists and students the foundation and practical guidance to make and analyze semisolid and liquid formulations**

#### **KEY FEATURES**

- Unique coverage of the underlying chemistry that makes possible stable dosages
- Quality content written by experienced experts from the drug development industry
- Valuable information for academic and industrial scientists developing topical and liquid dosage formulations for pharmaceutical as well as skin care and cosmetic products

#### **DESCRIPTION**

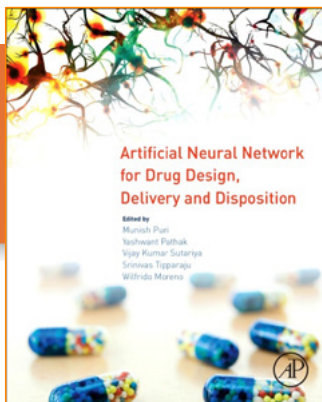
A needed resource for pharmaceutical scientists and cosmetic chemists, *Essential Chemistry for Formulators of Semisolid and Liquid Dosages* provides insight into the basic chemistry of mixing different phases and test methods for the stability study of nonsolid formulations. The book covers foundational surface/colloid chemistry, which forms the necessary background for making emulsions, suspensions, solutions, and nano drug delivery systems, and the chemistry of mixing, which is critical for further formulation of drug delivery systems into semisolid (gels, creams, lotions, and ointments) or liquid final dosages. Expanding on these foundational principles, this useful guide explores stability testing methods, such as particle size, rheological/viscosity, microscopy, and chemical, and closes with a valuable discussion of regulatory issues. *Essential Chemistry for Formulators of Semisolid and Liquid Dosages* offers scientists and students the foundation and practical guidance to make and analyze semisolid and liquid formulations.

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## Artificial Neural Network for Drug Design, Delivery and Disposition

Edited by  
Munish Puri  
Yashwant Pathak  
Vijay Kumar Sutariya  
Srinivas Tippiraju  
Wilfrido Moreno

**ISBN:** 978-0-12-801559-9

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 416

### AUDIENCE

Industry and academic researchers working in the pharmaceutical sciences, including those involved in computational drug design, drug discovery, drug delivery, biomedicine, neuroscience, bioengineering and bioinformatics.

## Artificial Neural Network for Drug Design, Delivery and Disposition

**Munish Puri** Visiting Fellow, National Cancer Institute, NIH, Bethesda, Maryland, USA  
**Yashwant Pathak** PhD, Professor and Associate Dean for Faculty Affairs, College of Pharmacy, University of South Florida Health, Tampa, FL ; **Vijay Kumar Sutariya** PhD, Assistant Professor, Department of Pharmaceutical Science, University of South Florida, Tampa, FL; **Srinivas Tippiraju** PhD, MPharm, Assistant Professor, Department of Pharmaceutical Science, University of South Florida, Tampa, FL; **Wilfrido Moreno** PhD, PE, Professor, Department of Electrical Engineering, University of South Florida, Tampa, FL



**This book provides a pioneer reference devoted to the Artificial Neural Network (ANN) in drug discovery, delivery, and disposition that contains valuable insights and applications to pharmaceutical and biomedical research. It is an essential resource for both academic and industry researchers.**

### KEY FEATURES

- Written by leading academic and industry scientists who have contributed significantly to the field and are at the forefront of artificial neural network (ANN) research
- Focuses on ANN in drug design, discovery and delivery, as well as adopted methodologies and their applications to the treatment of various diseases and disorders
- Chapters cover important topics across the pharmaceutical process, such as ANN in structure-based drug design and the application of ANN in modern drug discovery
- Presents the future potential of ANN-based strategies in biomedical image analysis and much more

### DESCRIPTION

*Artificial Neural Network for Drug Design, Delivery and Disposition* provides an in-depth look at the use of artificial neural networks (ANN) in pharmaceutical research. With its ability to learn and self-correct in a highly complex environment, this predictive tool has tremendous potential to help researchers more effectively design, develop, and deliver successful drugs.

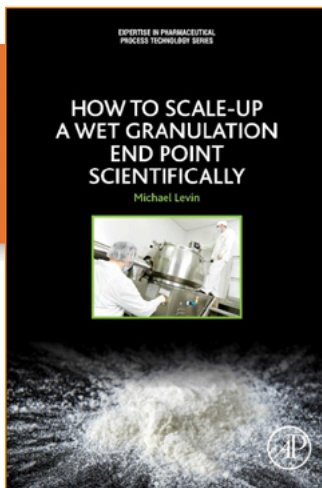
This book illustrates how to use ANN methodologies and models with the intent to treat diseases like breast cancer, cardiac disease, and more. It contains the latest cutting-edge research, an analysis of the benefits of ANN, and relevant industry examples. As such, this book is an essential resource for academic and industry researchers across the pharmaceutical and biomedical sciences.

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**ISBN:** 978-0-12-803522-1

**PUB DATE:** October 2015

**FORMAT:** Paperback

**PAGES:** c. 76

#### **AUDIENCE**

Pharmaceutical personnel from R&D professionals to team leaders and department heads; those working in nutraceutical and generic manufacturing companies

## How to Scale-Up a Wet Granulation End Point Scientifically

**Michael Levin** Owner, Pharmaceutical Technology Consulting, Milev LLC, West Orange, NJ; General Manager, Measurement Control Corporation, East Hanover, NJ



**An essential resource on the scale-up of wet granulation end points for pharmaceutical scientists and technologists engaged in granulation processes.**

#### **KEY FEATURES**

- Thoroughly referenced and based on the latest research and literature
- Part of the Expertise in Pharmaceutical Process Technology Series edited by internationally respected expert, Michael Levin
- Illustrates the most common problems related to scale-up of a wet granulation end point and provides valuable insights on how to solve these problems in a practical way

#### **DESCRIPTION**

*How to Scale-Up a Wet Granulation End Point Scientifically* provides a single-source devoted to all relevant information on the scale-up of a wet granulation end point.

Contents include a general description, problem identification, and theoretical background with supporting literature, case studies, potential solutions, and more. By outlining issues related to scale-up and end-point determination, and then using practical examples and advice to address these issues, *How to Scale-Up a Wet Granulation End Point Scientifically* is a valuable and essential resource for all those pharmaceutical scientists and technologists engaged in the granulation process.

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**ISBN:** 978-0-12-802221-4

**PUB DATE:** August 2015

**FORMAT:** Paperback

**PAGES:** c. 440

**AUDIENCE**

Graduate and postgraduate students in pharmaceutical science, pharmacy, and plant biotechnology; researchers in medicinal plants and the pharma industry; pharmacognosists, botanists, plant pathologists, plant geneticists, and plant embryologists

## Modern Applications of Plant Biotechnology in Pharmaceutical Sciences

**Saurabh Bhatia** Head of the Plant Tissue Culture Lab, PDM College of Pharmacy, Bahadurgarh, Haryana, India; **Kiran Sharma** Senior Research Fellow, Department of Plant tissue culture, Jamia Hamdard, New Delhi, India; **Randhir Dahiya** Associate Professor, Maharishi Markandeshwar College of Pharmacy, Mullana, Ambala, Haryana, India  
**Prof. Tanmoy, Bera** Head of the Department, Department of Pharmaceutical sciences, Jadavpur University, Kolkata, West Bengal, India



**The only book with a primary focus on the pharmaceutical applications of contemporary plant biotechnology techniques, covering basic mechanisms, principles, methods, and practical examples**

### KEY FEATURES

- Builds upon the basic concepts of cell and plant tissue culture and recombinant DNA technology to better illustrate the modern and potential applications of plant biotechnology to the pharmaceutical sciences
- Provides detailed yet practical coverage of complex techniques, such as micropropagation, gene transfer, and biosynthesis
- Examines critical issues of international importance and offers real-life examples and potential solutions

### DESCRIPTION

*Modern Applications of Plant Biotechnology in Pharmaceutical Sciences* explores advanced techniques in plant biotechnology, their applications to pharmaceutical sciences, and how these methods can lead to more effective, safe, and affordable drugs.

The book covers modern approaches in a practical, step-by-step manner, and includes illustrations, examples, and case studies to enhance understanding.

Key topics include plant-made pharmaceuticals, classical and non-classical techniques for secondary metabolite production in plant cell culture and their relevance to pharmaceutical science, edible vaccines, novel delivery systems for plant-based products, international industry regulatory guidelines, and more.

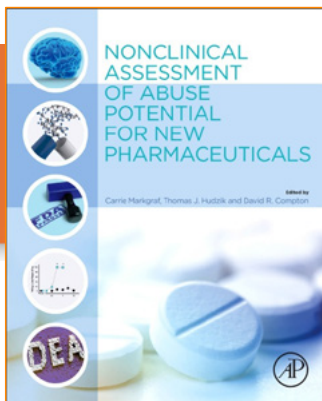
Readers will find the book to be a comprehensive and valuable resource for the study of modern plant biotechnology approaches and their pharmaceutical applications.

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**ISBN:** 978-0-12-420172-9

**PUB DATE:** August 2015

**FORMAT:** Hardback

**PAGES:** c. 302

#### AUDIENCE

Scientists in the pharmaceutical industry who conduct nonclinical studies (in Discovery and Nonclinical Safety departments); professionals who use the data in decision-making (Management, Regulatory and Project Managers); academics conducting research in these areas and clinicians in the pharmaceutical industry; Health Authority regulators

## Nonclinical Assessment of Abuse Potential for New Pharmaceuticals

Edited by: **Carrie Markgraf** MD, PhD, Discovery Sciences Support, Merck and Co, Ltd., Kenilworth, NJ

**Thomas Hudzik** Research Fellow, Preclinical Safety, Abbvie, Global Pharmaceutical Research and Development, North Chicago, IL

**David Compton** PhD, Principal Research Investigator, Toxicology, Sanofi US, Bridgewater, NJ and Affiliate Faculty, Department of Pharmacology and Toxicology, Virginia Commonwealth University



**Incorporates regulatory guidelines for drugs with abuse potential, illustrates how to successfully conduct nonclinical studies, and provides material on clinical study methods to highlight all nonclinical, regulatory and clinical angles**

#### KEY FEATURES

- Provides a consolidated overview of the complex regulatory landscape
- Offers best practice methodology for conducting animal studies, including selection of doses and positive control agents that will help you improve your own abuse potential studies
- Includes real-life examples to illustrate how nonclinical data fit into the submission strategy

#### DESCRIPTION

*Nonclinical Assessment of Abuse Potential for New Pharmaceuticals* offers a complete reference on the current international regulatory guidelines and details best practice methodology for the three standard animal models used to evaluate abuse potential: physical dependence, self-administration and drug discrimination. This book also includes chapters on alternative models and examples of when you should use these alternatives. Case histories are provided at the end of the book to show how the data generated from the animal models play a pivotal role in the submission package for a new drug. By incorporating all of this information into one book, *Nonclinical Assessment of Abuse Potential for New Pharmaceuticals* is your single resource for everything you need to know to understand and implement the assessment of abuse liability.

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## Essential Pharmacokinetics

A Primer for Pharmaceutical Scientists

Thorsteinn Loftsson



ISBN: 978-0-12-801411-0

PUB DATE: April 2015

FORMAT: Paperback

PAGES: c. 170

### AUDIENCE

Intended for graduate students and pharmaceutical scientists involved in self-study of the topic or tutored classes in pharmacokinetics, specifically those in non-clinical health-related sciences such as pharmaceuticals, drug formulation and medicinal chemistry.

## Essential Pharmacokinetics

### A Primer for Pharmaceutical Scientists

Thorsteinn Loftsson MS Pharm, MSc, PhD, Faculty of Pharmaceutical Sciences, Professor of Physical Pharmacy, University of Iceland, Reykjavik, Iceland



A concise and straightforward overview of the concepts and applications of pharmacokinetics containing numerous examples, figures and practice questions to enhance learning and comprehension

"...an excellent primer on basic pharmacokinetic concepts, with numerous equations, practice problems, and illustrations for students and new researchers in the pharmaceutical sciences. Score: 99 - 5 Stars"--Doody's, *Essential Pharmacokinetics*

"...a valuable introductory reference book...By the end of the book, the reader should have a good grasp of the components of pharmacokinetics."--*The Pharmaceutical Journal*, *Essential Pharmacokinetics*

### KEY FEATURES

- Shows how to apply basic pharmacokinetic methods to evaluate drugs, excipients and drug products
- Uses guided practice questions, mathematical concepts and real-world examples for self-assessment and retention purposes
- Illustrates how to write and evaluate drug registration files

### DESCRIPTION

*Essential Pharmacokinetics: A Primer for Pharmaceutical Scientists* is an introduction to the concepts of pharmacokinetics intended for graduate students and new researchers working in the pharmaceutical sciences. This book describes the mathematics used in the mammillary model as well as the application of pharmacokinetics to pharmaceutical product development, and is useful as both a self-study and classroom resource. Content coverage includes detailed discussions of common models and important pharmacokinetic concepts such as biological half-life, clearance, excretion, multiple dosage regimens and more. Numerous equations, practical examples and figures are incorporated to clearly illustrate the theoretical background of pharmacokinetic behavior of drugs and excipients.

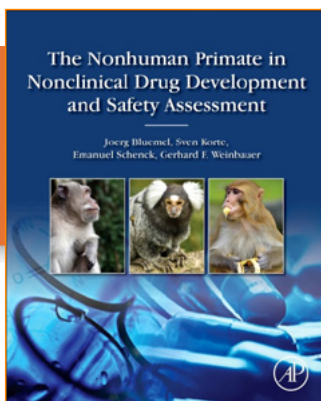
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**ISBN:** 978-0-12-417144-2

**PUB DATE:** March 2015

**FORMAT:** Hardback

**PAGES:** c. 698

#### **AUDIENCE**

New researchers, graduate students and professionals in toxicology and nonclinical drug development who are working with or studying nonhuman primates, as well as those undergoing certification or exam preparation

## **The Nonhuman Primate in Nonclinical Drug Development and Safety Assessment**

Edited by: **Joerg Bluemel** PhD, ERT, Associate Director of Development Toxicology, Safety Assessment, Genentech, Inc., San Francisco, CA

**Sven Korte** PhD, ERT, Senior Study Director, Covance Laboratories GmbH, Münster, Germany

**Emanuel Schenck** Dr. med. vet. PhD, Head of Pathology, MedImmune, Gaithersburg, MD

**Gerhard Weinbauer** PhD, Global Science Leader, Developmental and Reproductive Toxicology, Covance Laboratories GmbH, Münster, Germany



**A comprehensive and authoritative book devoted to nonclinical safety, regulatory toxicology and translational aspects of the use of nonhuman primates in pharmaceutical drug development**

"... useful to toxicologists and pharmaceutical scientists with limited experience in NHP-related work or toxicologists and pharmaceutical researchers seeking a comprehensive desktop reference. Score: 96 - 4 Stars"---**Doody's, *The Nonhuman Primate in Nonclinical Drug Development and Safety Assessment***

"...a great reference for preclinical laboratories that use NHPs because it discusses the needs of that diverse team...useful and inclusive of the animal care and use regulations currently in place in North America and Europe."---**JAVMA, *The Nonhuman Primate in Nonclinical Drug Development and Safety Assessment***

#### **KEY FEATURES**

- Covers important topics such as species selection, study design, experimental methodologies, animal welfare and the 3Rs (Replace, Refine and Reduce), social housing, regulatory guidelines, comparative physiology, reproductive biology, genetic polymorphisms and more
- Includes practical examples on techniques and methods to guide your daily practice
- Offers a companion website with high-quality color illustrations, reference values for safety assessment and additional practical information such as study design considerations, techniques and procedures and dosing and sampling volumes

#### **DESCRIPTION**

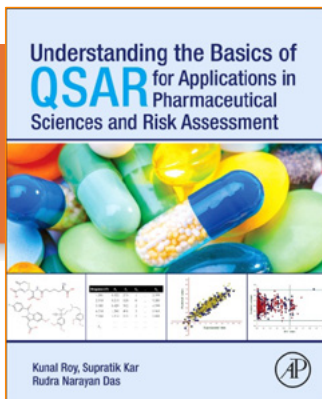
***The Nonhuman Primate in Drug Development and Safety Assessment*** is a valuable reference dedicated to compiling the latest research on nonhuman primate models in nonclinical safety assessment, regulatory toxicity testing and translational science. By covering important topics such as study planning and conduct, inter-species genetic drift, pathophysiology, animal welfare legislation, safety assessment of biologics and small molecules, immunotoxicology and much more, this book provides scientific and technical insights to help you safely and successfully use nonhuman primates in pharmaceutical toxicity testing. A comprehensive yet practical guide, this book is intended for new researchers or practicing toxicologists, toxicologic pathologists and pharmaceutical scientists working with nonhuman primates, as well as graduate students preparing for careers in this area.

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**ISBN:** 978-0-12-801505-6

**PUB DATE:** March 2015

**FORMAT:** Paperback

**PAGES:** c. 468

**AUDIENCE**

New researchers, professors and graduate students across the pharmaceutical sciences (including pharmacology, toxicology and medicinal chemistry); secondary audience of regulatory officials and risk assessors in toxicology and environmental health

## Understanding the Basics of QSAR for Applications in Pharmaceutical Sciences and Risk Assessment

**Kunal Roy** Associate Professor, Drug Theoretics and Cheminformatics Lab, Department of Pharmaceutical Technology, Jadavpur University, Kolkata, India  
**Supratik Kar** MPharm, Researcher, Department of Pharmaceutical Technology, Jadavpur University, Kolkata, India  
**Rudra Narayan Das** MPharm, Researcher, Department of Pharmaceutical Technology, Jadavpur University, Kolkata, India



**An introductory book that provides instruction on the basic tools of QSAR and incorporates practical examples relating to the pharmaceutical sciences**

"... a handy reference for beginners in this field. Score: 62 - 2 Stars"--**Doody's**, *Understanding the Basics of QSAR for Applications in Pharmaceutical Sciences and Risk Assessment*

### KEY FEATURES

- Includes numerous practical examples related to QSAR methods and applications
- Follows the Organization for Economic Co-operation and Development principles for QSAR model development
- Discusses related techniques such as structure-based design and the combination of structure- and ligand-based design tools

### DESCRIPTION

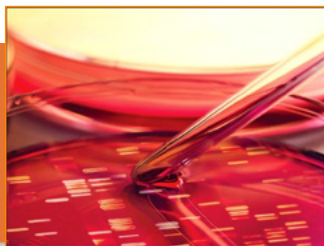
*Understanding the Basics of QSAR for Applications in Pharmaceutical Sciences and Risk Assessment* describes the historical evolution of quantitative structure-activity relationship (QSAR) approaches and their fundamental principles. This book includes clear, introductory coverage of the statistical methods applied in QSAR and new QSAR techniques, such as HQSAR and G-QSAR. Containing real-world examples that illustrate important methodologies, this book identifies QSAR as a valuable tool for many different applications, including drug discovery, predictive toxicology and risk assessment. Written in a straightforward and engaging manner, this is the ideal resource for all those looking for general and practical knowledge of QSAR methods.

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## Novel Approaches and Strategies for Biologics, Vaccines and Cancer Therapies

Edited by: **Manmohan Singh** PhD, Head of Global Manufacturing Technology Development & Adjuvant Formulation & Technology, Novartis Vaccines and Diagnostics; Adjunct Professor, University of North Carolina at Chapel Hill  
**Maya Salnikova** PhD, Principal Scientist and Formulation Group Leader, Novartis Vaccines and Diagnostics, Holly Springs, NC



### Novel Approaches and Strategies for Biologics, Vaccines and Cancer Therapies

Manmohan Singh  
Maya Salnikova



**ISBN:** 978-0-12-416603-5

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 510

#### AUDIENCE

Researchers, clinicians and students working in formulation, drug delivery, biotechnology, oncology, personalized medicine, immunology, parenteral devices and systems and molecular biology

**Containing the most recent advances, trends and challenges in formulations for biologics, vaccines and cancer therapies, this book illustrates the wide scope of novel strategies needed to formulate successful therapies**

#### KEY FEATURES

- Provides strategies for the development of safe and efficacious novel formulations for various modalities of biologics, vaccines and for cancer therapy
- Highlights novel cases from current clinical trials as well as marketed products
- Reviews overall successes and challenges in the development of novel formulations, including new molecular targets for the treatment of diseases, design of target-specific therapies, regulatory considerations, individualized therapies

#### DESCRIPTION

*Novel Approaches and Strategies for Biologics, Vaccines and Cancer Therapies* takes a look at the current strategies, successes and challenges involved with the development of novel formulations of biologics, vaccines and cancer therapy. This thorough reference on the latest trends in the development of diverse modalities will appeal to a broad community of scientists, students and clinicians. Written by leading authors across academia and industry, this book covers important topics such as unique drug delivery devices, non-parenteral delivery trends, novel approaches to the treatment of cancer, immunotherapy and more. It includes real-world cases and examples which highlight formulations with therapeutic proteins, monoclonal antibodies, peptides and biobetters, as well as cases on novel vaccines formulations including evolving pathogens, novel modalities of vaccines, universal vaccines. This book is a thorough and useful resource on the development of novel biologics, vaccines and cancer therapies.

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# Boorman's Pathology of the Rat

Reference and Atlas

Second Edition



Editor  
Andrew W. Suttie  
Associate Editors  
Joel R. Leininger and Alys E. Bradley



**ISBN:** 978-0-12-391448-4

**PREVIOUS EDITION ISBN:**  
9780121156404

**PUB DATE:** July 2016

**FORMAT:** Hardback

**PAGES:** c. 688

## AUDIENCE

Veterinary pathologists, toxicologists, toxicologic pathologists, and laboratory animal researchers using the rat model in laboratories across academia, in the chemical and pharmaceutical industries, and at regulatory agencies.

## Boorman's Pathology of the Rat, 2e Reference and Atlas

Edited by: **Andrew W. Suttie** Pathology, Covance, Inc, VA, USA

**Joel R. Leininger** Wil Research, North Carolina, USA

**Alys E. Bradley** Director of Pathology, Charles River, Edinburgh, Scotland, UK



**Emphasizing the Sprague-Dawley and Wistar rat strains consistent with current research across academia, government, and industry, this leading book is the most comprehensive pathology reference on rat strains and a vital resource for researchers across science and medicine who use rat models in the laboratory**

## KEY FEATURES

- Contains full, four color photographs from the NTP archive and database and coverage of all rat strains
- Provides an organ-by-organ and system-by-system approach that presents standard diagnostic criteria and basic content on histology and histological changes
- Includes comprehensive and detailed background incidence data
- Presents detailed descriptive content regarding changes in rat models during research

## DESCRIPTION

*Boorman's Pathology of the Rat: Reference and Atlas, Second Edition*, continues its history as the most comprehensive pathology reference on rat strains for researchers across science and medicine using rat models in the laboratory. It offers readers an added emphasis on the Sprague-Dawley and Wistar rat strains, consistent with current research across academia, government, and industry.

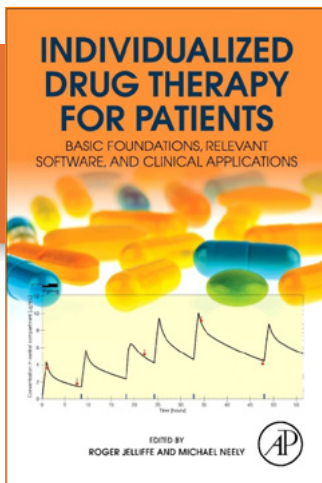
In addition, the book provides standard diagnostic criteria, basic content on histology, histological changes that result from drug toxicity and neoplasm, pathology terminology, and four-color photographs from the NTP archive and database. With updated references and photographs, as well as coverage of all rat strains, this book is not only the standard in the field but an invaluable resource for toxicologists, biologists, and other scientists engaged in regulatory toxicology who must make the transition from pathology results to promulgation of meaningful regulations.

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**ISBN:** 978-0-12-803348-7

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 120

**AUDIENCE**

Clinical pharmacologists,  
pharmacists and physicians

## Individualized Drug Therapy for Patients

### *Basic Foundations, Relevant Software and Clinical Applications*

Edited by: **Roger W Jelliffe** Professor of Medicine Emeritus, University of Southern California School of Medicine, Los Angeles, CA; Founder and Director Emeritus, Laboratory of Applied Pharmacokinetics and Bioinformatics, Consultant in Infectious Diseases, Children's Hospital of Los Angeles, Los Angeles, CA, USA; **Michael Neely** Associate Professor of Pediatrics and Clinical Scholar, University of Southern California, Los Angeles, CA; Director, Laboratory of Applied Pharmacokinetics and Bioinformatics, Children's Hospital Los Angeles Saban Research Institute, Los Angeles, CA, USA



**This practical guide provides clinical pharmacologists, pharmacists, and physicians with a valuable resource to help move traditional drug therapy beyond a memorized ritual to being a thoughtful quantitative process aimed at optimizing therapy for each individual patient**

#### KEY FEATURES

- Uses pharmacokinetic approaches as the tools with which therapy is individualized
- Provides examples using specific software that illustrate how best to apply these approaches and to make sense of the more sophisticated mathematical foundations upon which this book is based
- Incorporates clinical cases throughout to illustrate the real-world benefits of using these approaches
- Focuses on quantitative approaches that maximize the precision with which dosage regimens of potentially toxic drugs can hit a desired therapeutic goal

#### DESCRIPTION

*Individualized Drug Therapy for Patients: Basic Foundations, Relevant Software and Clinical Applications* focuses on quantitative approaches that maximize the precision with which dosage regimens of potentially toxic drugs can hit a desired therapeutic goal. This book highlights the best methods that enable individualized drug therapy and provides specific examples on how to incorporate these approaches using software that has been developed for this purpose.

The book discusses where individualized therapy is currently and offers insights to the future. Edited by Roger Jelliffe, a renowned authority in individualized drug therapy, and with chapters written by international experts, this book provides clinical pharmacologists, pharmacists, and physicians with a valuable and practical resource that takes drug therapy away from a memorized ritual to a thoughtful quantitative process aimed at optimizing therapy for each individual patient.

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## Clinical Trials, 2e

*Study Design, Endpoints and Biomarkers, Drug Safety, and FDA and ICH Guidelines*

Tom Brody



**A hands-on guidebook that integrates the most practical aspects of clinical trial design with important content on laboratory studies of human data, patient safety, regulatory requirements and much more**

### KEY FEATURES

- Contains new and fully revised material on key topics such as biostatistics, biomarkers, orphan drugs, biosimilars, drug regulations in Europe, drug safety, regulatory approval and more
- Extensively covers the "study schema" and related features of study design
- Incorporates laboratory data from studies on human patients to provide a concrete tool for understanding the concepts in the design and conduct of clinical trials
- Includes decisions made by FDA reviewers when granting approval of a drug as real world learning examples for readers

### DESCRIPTION

***Clinical Trials, Second Edition***, offers those engaged in clinical trial design a valuable and practical guide. This book takes an integrated approach to incorporate biomedical science, laboratory data of human study, endpoint specification, legal and regulatory aspects and much more with the fundamentals of clinical trial design. It provides an overview of the design options along with the specific details of trial design and offers guidance on how to make appropriate choices. Full of numerous examples and now containing actual decisions from FDA reviewers to better inform trial design, the 2nd edition of *Clinical Trials* is a must-have resource for early and mid-career researchers and clinicians who design and conduct clinical trials.

**ISBN:** 978-0-12-804217-5

**PREVIOUS EDITION ISBN:**  
978-0-12-391911-3

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 872

### AUDIENCE

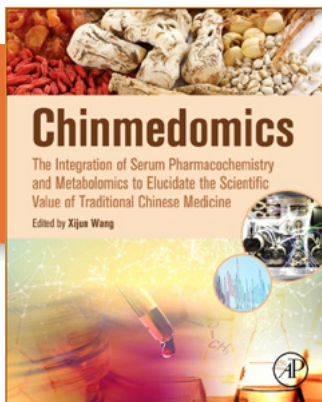
Researchers, physicians, nurses, pharmacists who plan and run clinical trials, members of the American Medical Writers Association, pharmaceutical and biotechnology industry scientists, pharmacology and pharmaceutical science students, pharmacy students and medical students

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**ISBN:** 978-0-12-803117-9

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 386

#### **AUDIENCE**

Pharmacologists, drug developers, medicinal plant researchers and pharmacognosists, researchers of traditional medicines and natural product chemistry, researchers studying metabolomics and biomarkers and analytical chemists

## **Chinmedomics**

### ***The Integration of Serum Pharmacochimistry and Metabolomics to Elucidate the Scientific Value of Traditional Chinese Medicine***

**Xijun Wang** Professor and General Director, National Traditional Chinese Medicine (TCM), Heilongjiang University of Chinese Medicine, Harbin, China ; **Aihua Zhang** National Traditional Chinese Medicine (TCM) Key Laboratory of Serum Pharmacochimistry, Laboratory of Metabolomics and Chinmedomics, Harbin, China; **Hui Sun** National Traditional Chinese Medicine (TCM) Key Laboratory of Serum Pharmacochimistry, Laboratory of Metabolomics and Chinmedomics, Harbin, China



**A comprehensive treatment of Chinmedomics, a unique research method for evaluating the biological characteristics of Traditional Chinese Medicine (TCM) syndromes and the efficacy of TCM formulae to provide safer, more effective drug development and therapy**

#### **KEY FEATURES**

- Presents a practical guide for new practitioners of Chinmedomics with insights on the current use and future development of this method
- Each chapter includes an introduction, method, references to the latest literature, possible mechanisms of action and applications
- Edited by the leading experts of research related to Chinmedomics

#### **DESCRIPTION**

***Chinmedomics: The Integration of Serum Pharmacochimistry and Metabolomics to Elucidate the Scientific Value of Traditional Chinese Medicine*** uses new experimental techniques and research to open doors in drug discovery and development related to traditional Chinese medicine (TCM). This book features a unique approach that combines chemometric analysis with metabolomics studies to illuminate significant changes that have occurred in syndrome states while simultaneously analyzing the efficacy of chemical ingredients in herbal medicines. Chapters provide cutting-edge information on traditional medicine, analytical technology, natural products, metabolomics, bioinformatics and their applications. This book provides a valuable resource for pharmacologists, pharmaceutical scientists, medicinal plant researchers, pharmacognosists and chemists working with TCM and highlights ways to further research and advances in this area in the future.

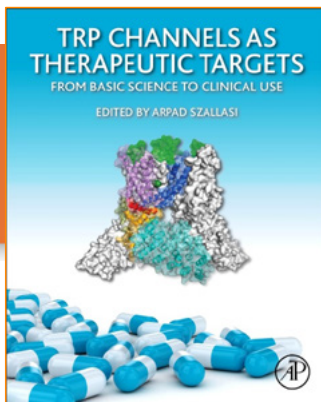
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**ISBN:** 978-0-12-420024-1

**PUB DATE:** March 2015

**FORMAT:** Hardback

**PAGES:** c. 520

#### **AUDIENCE**

New and established researchers from academia and industry involved in target validation, compound discovery and drug development programs aimed at TRP channels; clinical investigators/clinicians who need to become familiar with the latest clinical trials with drugs targeting TRP channels

## **TRP Channels as Therapeutic Targets**

### ***From Basic Science to Clinical Use***

Edited by: **Arpad Szallasi** MD PhD FCAP, Pathologist and Medical Director for the Transfusion Services, Monmouth Medical Center, Long Branch, NJ, Professor of Pathology and Laboratory Medicine, Drexel University College of Medicine, Philadelphia, PA and President, New Jersey Association of Blood Bank Professionals



**This comprehensive resource fills an important gap by focusing on recent clinical data and therapeutic targeting of TRP channels**

"...provides a useful meta-review of a field in which numerous journal reviews have been published, few of which approach the big picture and detailed historical assessment of drug development and testing found here. Score: 84 - 3 Stars"--**Doody's, *TRP Channels as Therapeutic Targets***

#### **KEY FEATURES**

- Contains comprehensive coverage of TRP channels as therapeutic targets, from emerging clinical indications to completed clinical trials
- Discusses TRP channels as validated targets, ranging from obesity and diabetes through cancer and respiratory disorders, kidney diseases, hypertension, neurodegenerative disorders, and more
- Provides critical analysis of the complications and side effects that have surfaced during clinical trials, offering evidence-based suggestions for overcoming them

#### **DESCRIPTION**

*TRP Channels as Therapeutic Targets: From Basic Science to Clinical Use* is authored by experts across academia and industry, providing readers with a complete picture of the therapeutic potential and challenges associated with using TRP channels as drug targets.

This book offers a unique clinical approach by covering compounds that target TRP channels in pre-clinical and clinical phases, also offering a discussion of TRP channels as biomarkers.

An entire section is devoted to the novel and innovative uses of these channels across a variety of diseases, offering strategies that can be used to overcome the adverse effects of first generation TRPV1 antagonists.

Intended for all researchers and clinicians working toward the development of successful drugs targeting TRP channels, this book is an essential resource chocked full of the latest clinical data and findings.

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**ISBN:** 978-0-12-805418-5

**PUB DATE:** April 2016

**FORMAT:** Paperback

**PAGES:** c. 160

**AUDIENCE**

Students and researchers across the sciences interested in improving their oral communication skills; in particular non-native English speakers

## Oral Communication Skills for Scientific Presentations

*William B. Krantz* President's Teaching Scholar and Professor Emeritus, University of Colorado, Boulder, CO, USA; Rieveschl Ohio Eminent Scholar and Professor Emeritus, University of Cincinnati, Cincinnati, OH, USA



**A practical, compact guidebook covering the 'nuts and bolts' of effective public speaking**

**KEY FEATURES**

- Discusses best practices in putting together an effective talk
- Focuses on leveraging the speaker's existing skill sets to develop the delivery style that works best for that individual
- Features one-page quick reference guides for giving formal oral and informal poster presentations
- Addresses cross-cultural communication as well as particular concerns for non-native English speakers
- Includes a companion site with tools and video examples of formal and informal presentations for further self-guidance

**DESCRIPTION**

*Oral Communication Skills for Scientific Presentations* is intended for inexperienced speakers as well as those aspiring to improve their communication skills in making either formal or informal presentations on a technical subject. A complement to having good organization for a technical presentation is to have an effective delivery style. This book provides a template for organizing a technical talk that will include a discussion of various ways to effectively develop each part of a technical presentation.

A special feature of *Oral Communication Skills for Scientific Presentations* is the focus on making presentations to a cross-cultural audience. This relates to relatively minor considerations such as how to list the names of the co-authors on your presentation as well as to more substantive considerations such as how to handle eye contact and use humor, both of which can differ across the global spectrum of cultures. The cross-cultural focus of this book relates not only to the audience, but also to the speaker. This book also includes helpful tips for non-native English speakers.

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## Graduate Research, 4e

### *A Guide for Students in the Sciences*

**Robert V. Smith** Collaborative Brain Trust University Consulting (CBT UC),  
Sacramento, CA, USA

**Llewellyn D. Densmore** Department of Biological Sciences, Texas Tech  
University, Lubbock, TX, USA

**Edward F. Lener** University Libraries, Virginia Tech, Blacksburg, VA, USA



**This newly revised go-to resource is for graduate researchers at all stages of study and covers a range of topics including writing and preparation of research proposals, developing and refining teaching skills, and ethics and compliance areas such as research involving human subjects and animals**

#### KEY FEATURES

- Discusses a broad range of topics including time management, library and literature work, and grant support
- Includes a new chapter on career planning and development with advice on careers in academia, government, and the private sector
- Contains chapters that promote the development of a varied set of communication skills
- Greatly expanded treatment of graduate study and research in international settings

#### DESCRIPTION

*Graduate Research* is an all-in-one resource for prospective and matriculated graduate students in the sciences. The newly revised edition includes updates to every chapter. *Graduate Research* covers a range of topics including writing and preparation of research proposals, developing and refining teaching skills, and ethics and compliance areas such as research involving human subjects and animals.

*Graduate Research* helps readers navigate the multidimensional and interdisciplinary world of scientific research and it is an invaluable resource for graduate researchers as well as those in advising or mentoring roles.

**ISBN:** 978-0-12-803749-2

**PREVIOUS EDITION ISBN:**  
9780295977058

**PUB DATE:** February 2016

**FORMAT:** Paperback

**PAGES:** c. 288

#### AUDIENCE

Graduate student, graduate  
advisors, and mentors across the  
Sciences

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**ISBN:** 978-0-12-802578-9

**PUB DATE:** September 2015

**FORMAT:** Paperback

**PAGES:** c. 192

**AUDIENCE**

Graduate students, postdoctoral fellows and faculty in every discipline

## Oral Exams

### *Preparing For and Passing Candidacy, Qualifying, and Graduate Defenses*

**Lee A Foote** Professor and Director, Devonian Botanic Garden, University of Alberta, Edmonton, AB, Canada



**This book provides students with a great resource to help them prepare for oral comprehensive and viva voce exams, and is also valuable for faculty as they prepare new questions.**

#### KEY FEATURES

- Describes in detail the general format of oral comprehensive exams, viva voce examinations and defenses, what to expect, and what the requirements are that students need to fulfill to pass.
- Includes appendices with numerous practice questions sourced from a range of disciplines and countries for individual or group learning
- Useful for Early Career academics that are supervising, supporting, and examining PhD students

#### DESCRIPTION

*Oral Exams: Preparing For and Passing Candidacy, Qualifying, and Graduate Defenses* provides guidance on how to prepare for oral comprehensive and viva voce exams.

Topics discussed include the supervisory committee, preparing the seminar, arranging content, mental preparation, question framing, and the types of questions to expect.

At its core, the book prepares students to be the best they can be by offering insights into how to interpret and appropriately respond to explicit and implied oral comps questions.

This book benefits faculty by helping them prepare new questions, also providing tips on how to mentor their students in preparation for exams.

The training included can be used to prepare for intensive qualifying or certification exams, job interviews, and presentations.

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COMMUNICATE SCIENCE  
PAPERS, PRESENTATIONS,  
AND POSTERS EFFECTIVELY



GREGORY S. PATIENCE  
DARIA C. BOFFITO  
PAUL A. PATIENCE



**ISBN:** 978-0-12-801500-1

**PUB DATE:** August 2015

**FORMAT:** Paperback

**PAGES:** c. 264

**AUDIENCE**

Graduate students, research fellows, post-docs, professors, scientists and researchers in STEM fields.

## Communicate Science Papers, Presentations, and Posters Effectively

**Gregory S. Patience** Department of Chemical Engineering, Ecole Polytechnique de Montreal, Canada

**Daria C. Boffito** Department of Chemical Engineering, Ecole Polytechnique de Montreal, Canada

**Paul Patience** Ecole Polytechnique de Montreal, Canada



The tools readers need to become better writers, presenters, and communicators

### KEY FEATURES

- Covers how to accurately and clearly exhibit results, ideas, and conclusions
- Identifies phrases common in scientific literature that should never be used
- Discusses the theory of presentation, including “before and after” examples highlighting best practices
- Provides concrete, step-by-step examples on how to make camera ready graphs and tables

### DESCRIPTION

*Communicate Science Papers, Presentations, and Posters Effectively* is a guidebook on science writing and communication that professors, students, and professionals in the STEM fields can use in a practical way. This book advocates a clear and concise writing and presenting style, enabling users to concentrate on content.

The text is useful to both native and non-native English speakers, identifying best practices for preparing graphs and tables, and offering practical guidance for writing equations. It includes content on significant figures and error bars, and provides the reader with extensive practice material consisting of both exercises and solutions.

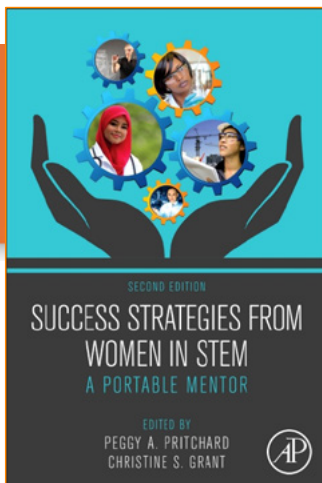
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## Success Strategies From Women in STEM, 2e

### A Portable Mentor

Edited by: **Peggy A. Pritchard** Associate Librarian, Learning and Curriculum Support Team, University of Guelph, Guelph, ON, Canada

**Christine Grant** PhD, Full Professor of Chemical and Biomolecular Engineering and Associate Dean of Faculty Advancement, North Carolina State University, College of Engineering, Raleigh, NC, USA



**A comprehensive and accessible manual that provides valuable strategies, tools, and success tips for women pursuing and involved in STEM careers**

"...we need women to fully participate in this industry...morally and ethically, it's simply the right thing to do. This book will undoubtedly help."--**Network Security, Success Strategies from Women in STEM, Second Edition**

**ISBN:** 978-0-12-397181-4

**PREVIOUS EDITION ISBN:**

978-0-12-088411-7

**PUB DATE:** June 2015

**FORMAT:** Paperback

**PAGES:** c. 460

#### AUDIENCE

Women pursuing careers or involved in careers in science, technology, engineering and mathematics

#### KEY FEATURES

- Preserves the style and tone of the first edition by bringing together mentors, trainees and early-career professionals in a series of conversations about important topics related to careers in STEM fields, such as leadership, time stress, negotiation, networking, social media and more
- Identifies strategies that can improve career success along with stories that elucidate, engage, and inspire
- Companion website provides authoritative information from successful women engaged in STEM careers, including annotated links to key organizations, associations, granting agencies, teaching support materials, and more

#### DESCRIPTION

*Success Strategies from Women in Stem: A Portable Mentor, Second Edition*, is a comprehensive and accessible manual containing career advice, mentoring support, and professional development strategies for female scientists in the STEM fields.

This updated text contains new and essential chapters on leadership and negotiation, important coverage of career management, networking, social media, communication skills, and more. The work is accompanied by a companion website that contains annotated links, a list of print and electronic resources, self-directed learning objects, frequently asked questions, and more.

With an increased focus on international relevance, this comprehensive text contains shared stories and vignettes that will help women pursuing or involved in STEM careers develop the necessary professional and personal skills to overcome obstacles to advancement.

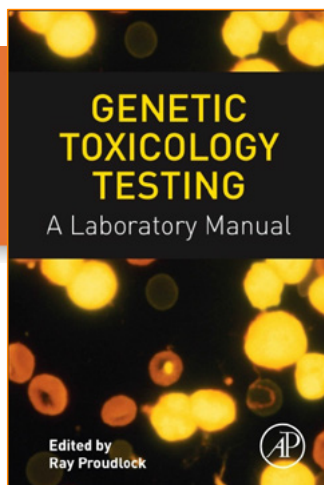
## LIFE SCIENCES

## PROFESSIONAL AND CAREER DEVELOPMENT

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**ISBN:** 978-0-12-800764-8

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 288

**AUDIENCE**

Graduate students and professional researchers in toxicology and pharmaceutical science

## Genetic Toxicology Testing

*A Laboratory Manual*

Ray Proudlock Boone, North Carolina, USA



Reviewing genetic toxicology testing of chemicals in a Good Laboratory Practice (GLP) environment, this practical guide covers the most commonly used assays—from laboratory ad test design to results analysis—as well as individual test methods, equipment, suggested suppliers, recipes for reagents, and evaluation criteria

### KEY FEATURES

- Offers practical and consistent guidance on the most commonly-performed tests and procedures in a genetic toxicology lab
- Describes standard genetic toxicology assays, their methodology, reagents, suppliers, and analysis of their results
- Includes guidance on general approaches: formulation for in vitro assays, study monitoring, and Good Laboratory Practice (GLP)
- Serves as an essential reference for those new to the genetic toxicology laboratory, or anyone involved in setting up their own lab

### DESCRIPTION

*Genetic Toxicology Testing: A Laboratory Manual* presents a practical guide to genetic toxicology testing of chemicals in a GLP environment. The most commonly used assays are described, from laboratory ad test design to results analysis. In a methodical manner, individual test methods are described step-by-step, along with equipment, suggested suppliers, recipes for reagents, and evaluation criteria.

An invaluable resource in the lab, this book will help to troubleshoot any assay problems you may encounter to optimise quality and efficiency in your genetic toxicology tests. *Genetic Toxicology Testing: A Laboratory Manual* is an essential reference for those new to the genetic toxicology laboratory, or anyone involved in setting up their own.

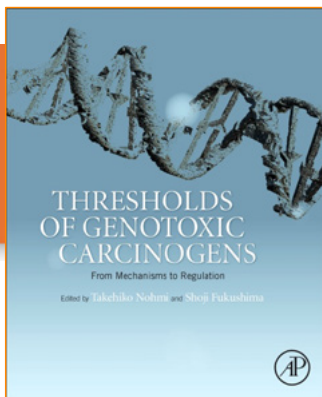
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**ISBN:** 978-0-12-801663-3

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 240

**AUDIENCE**

Researchers in genetic toxicology, genetic toxicologists working in pharmaceuticals, foods, agricultural pesticides and cosmetics, regulatory toxicologists, risk assessors

## Thresholds of Genotoxic Carcinogens

### *From Mechanisms to Regulation*

Edited by: **Takehiko Nohmi** Visiting Scientist, Scientist Emeritus, Biological Safety Research Center, National Institute of Health Sciences, Japan; Science Coordinator, Japan Agency for Medical Research and Development, Japan

**Shoji Fukushima** Japan Bioassay Research Center, Japan



**A balanced overview of the current international research and opinions on the thresholds of genotoxic carcinogens, this professional reference describes potential cancer risks of daily low-level exposure, the mechanisms involved, chemical and statistical methods of analysis, and the ways in which these may be utilized to inform policy**

#### KEY FEATURES

- Unites an international team of experts to provide a balanced overview of the current opinion on thresholds of genotoxic carcinogens
- Provides all the information readers need to determine a safe threshold for potential genotoxic carcinogens
- Includes information on the mechanisms of genotoxic carcinogens and how these can inform regulation
- Serves as an essential reference for any professional researchers in genetic toxicology and those involved in toxicological regulation

#### DESCRIPTION

*Thresholds of Genotoxic Carcinogens: From Mechanisms to Regulation* brings together current opinion and research activities from Japan, the US, and Europe on the subject of genotoxic thresholds. In regulation, it is an adage that genotoxic carcinogens have no thresholds for action, and that they impose cancer risk on humans even at very low levels. This policy is frequently called into question as humans possess a number of defense mechanisms including detoxication, DNA repair, and apoptosis, meaning there is a threshold at which these genotoxic carcinogens take action.

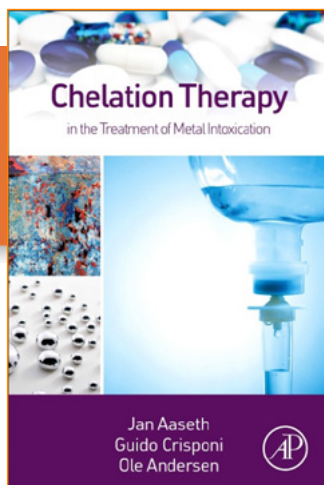
The book examines these potential thresholds, describing the potential cancer risks of daily low-level exposure, the mechanisms involved (such as DNA repair, detoxication, translesion DNA synthesis), chemical and statistical methods of analysis, and the ways in which these may be utilized to inform policy. *Thresholds of Genotoxic Carcinogens: From Mechanisms to Regulation* is an essential reference for any professional researchers in genetic toxicology and those involved in toxicological regulation.

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**ISBN:** 978-0-12-803072-1

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 350

**AUDIENCE**

Professional toxicologists,  
pharmacologists, medical chemists,  
chemists and clinicians

## Chelation Therapy in the Treatment of Metal Intoxication

**Jan Aaseth** Professor, Department of Public Health, Hedmark University College, Elverum, Hedmark, Norway; Kongsvinger Hospital, Innlandet, Hedmark, Norway

**Guido Crisponi** Professor, Department of Chemical and Geological Sciences, University of Cagliari, Monserrato - Cagliari, Italy

**Ole Andersen** Professor, Department of Science, Systems and Models, Roskilde University, Roskilde, Denmark



**This practical guide explores the use of chelation therapy—from its basic chemistry to available chelating antidotes and the application of chelating agents—in response to human exposure to a range of toxic metal compounds**

### KEY FEATURES

- Presents all the current findings on the potential for chelation as a therapy for metal intoxication
- Presents practical guidelines for selecting the most appropriate chelating agent
- Includes coverage on radionuclide exposure and metal storage diseases
- Describes the chemical and biological principles of chelation in the treatment of toxic metal compounds

### DESCRIPTION

*Chelation Therapy in the Treatment of Metal Intoxication* presents a practical guide to the use of chelation therapy, from its basic chemistry, to available chelating antidotes, and the application of chelating agents. Several metals have long been known to be toxic to humans, and continue to pose great difficulty to treat. These challenges pose particular problems in industrial settings, with lead smelting known to be associated with hemopoietic alterations and paralyses, and the inhalation of mercury vapor in mercury mining being extremely detrimental to the central nervous system.

Clinical experience has demonstrated that acute and chronic human intoxications with a range of metals can be treated efficiently by administration of chelating agents. *Chelation Therapy in the Treatment of Metal Intoxication* describes the chemical and biological principles of chelation in the treatment of these toxic metal compounds, including new chelators such as meso-2,3-dimercaptosuccinic acid (DMSA) and D,L-2,3-dimercapto-1-propanesulfonic acid (DMPS).

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# Anti-Cancer Treatments and Cardiotoxicity

Mechanisms, Diagnostic and Therapeutic Interventions



Edited by  
Patrizio Lancellotti  
Jose L. Zamorano  
Maurizio Galderisi



**ISBN:** 978-0-12-802509-3

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 284

## AUDIENCE

Professionals and graduate students in the fields of toxicology and cardiology research. Oncologists. Cardiologists. Clinicians.

## Anti-Cancer Treatments and Cardiotoxicity

### *Mechanisms, Diagnostic and Therapeutic Interventions*

Edited by: **Patrizio Lancellotti** Professor of Cardiology, University of Liège, Liège, Belgium

**Jose L. Zamorano** Professor and Head of Cardiology, University Hospital Ramón y Cajal, Madrid, Spain

**Maurizio Galderisi** Associate Professor of Cardiology, Clinical Director, Federico II University Hospital, Italy



**A comprehensive examination of the latest research on the adverse cardiac effects of anti-cancer treatments such as radiotherapy and chemotherapy, this book highlights the most effective diagnostic and imaging tools for evaluating and predicting the development of cardiac dysfunction in patients undergoing cancer treatment**

## KEY FEATURES

- Provides algorithms essential for the use of imaging, and biomarkers for the screening and monitoring of patients
- Written by world-leading experts in the field of cardiotoxicity
- Includes high-quality images, case studies, and test questions
- Describes the most effective diagnostic and imaging tools to evaluate and predict the development of cardiac dysfunction for those patients undergoing cancer treatment

## DESCRIPTION

*Anti-Cancer Treatments and Cardiotoxicity: Mechanisms, Diagnostic and Therapeutic Interventions* presents cutting edge research on the adverse cardiac effects of both radiotherapy and chemotherapy, brought together by leaders in the field. Cancer treatment-related cardiotoxicity is the leading cause of treatment-associated mortality in cancer survivors and is one of the most common post-treatment issues among survivors of adult cancer. Early detection of the patients prone to developing cardiotoxicity, taking in to account the type of treatment, history and other risk factors, is essential in the fight to decrease cardiotoxic mortality.

This illustrated reference describes the most effective diagnostic and imaging tools to evaluate and predict the development of cardiac dysfunction for those patients undergoing cancer treatment. In addition, new guidelines on imaging for the screening and monitoring of these patients are also presented. *Anti-Cancer Treatments and Cardiotoxicity* is an essential reference for those involved in the research and treatment of cardiovascular toxicity.

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**ISBN:** 978-0-12-809589-8

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**FORMAT:** Hardback

**PAGES:** c. 310

**AUDIENCE**

Professional toxicologists, risk assessors, and regulators

## Molecular Biological Markers for Toxicology and Risk Assessment

**Bruce A. Fowler** Ph.D., A.T.S., Private Consulting Toxicologist, Adjunct Professor, Emory University, Rollins School of Public Health, and Presidents Professor of Biomedical Research, University of Alaska - Fairbanks



**A professional reference introducing molecular biomarkers, their use in the fields of toxicology and risk assessment, and future applications.**

### KEY FEATURES

- Introduces the use of molecular biomarkers to detect toxic effects of chemicals as early as possible
- Provides an accessible overview of this emerging, interdisciplinary field, to best inform decision making in chemical and pharmaceutical safety
- Includes a section on risk communication of these complex concepts, essential for effective risk assessment

### DESCRIPTION

*Molecular Biological Markers for Toxicology and Risk Assessment* provides an introduction to the exciting field of biomarkers, and their use in toxicology and risk assessment. In recent years, new classes of molecular biomarkers capable of detecting early manifestations of ongoing chemical-induced cell injury and cell death have been developed as a result of advances in analytical chemistry, molecular biology and computational modeling. The interplay between these emergent tools of science has resulted in new insights into initial mechanisms of chemical-induced toxicity and carcinogenicity.

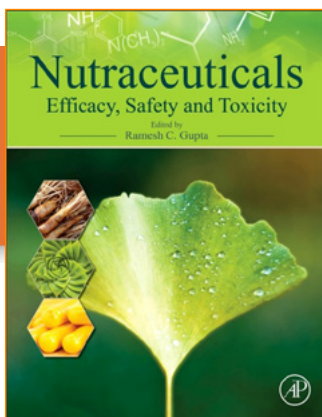
*Molecular Biological Markers for Toxicology and Risk Assessment* guides the reader through a broad range of molecular biological markers, including the “omic” biomarkers, and provides an examination of the various elements in the evolution of these modern tools. It then explores possible ways in which these markers may be applied to advance the field of chemical risk assessment. Since molecular biomarkers and related technologies are inherently complex, the book concludes with a section on risk communication in order that readers may appreciate both the strengths and limitations of molecular biological marker approaches to risk assessment practice.

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**ISBN:** 978-0-12-802147-7

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**FORMAT:** Hardback

**PAGES:** c. 1022

**AUDIENCE**

Toxicologists, pharmacologists,  
pharmaceutical scientists,  
pharmacists, nutritionists, medicinal  
and natural product chemists

## Nutraceuticals

### *Efficacy, Safety and Toxicity*

Edited by: **Ramesh C. Gupta** DVM, MVSc, PhD, DABT, FACT, FACN, FATS,  
Professor and Head, Toxicology Department, Breathitt Veterinary Center,  
Murray State University, Hopkinsville, KY, USA



**As the first-of-its-kind reference detailing the use and potential toxic effects of nutraceuticals and dietary supplements, this book brings together all current knowledge regarding nutraceuticals and their potential toxic effects, providing an introduction to nutraceuticals, herbal medicines, ayurvedic medicines, prebiotics, probiotics, and adaptogens, along with their use and specific applications**

#### KEY FEATURES

- Grants an overview of the current state-of-the-science of nutraceuticals, their use and applications, and known adverse effects
- Provides effective tools to evaluate the potential toxicity of any nutraceutical
- Includes details of regulatory issues as written by international experts

#### DESCRIPTION

*Nutraceuticals: Efficacy, Safety and Toxicity* brings together all current knowledge regarding nutraceuticals and their potential toxic effects as written by the scientists at the forefront of their study. Users will find an introduction to nutraceuticals, herbal medicines, ayurvedic medicines, prebiotics, probiotics, and adaptogens, along with their use and specific applications.

This essential reference then discusses the mechanism of action for the judicious use of these nutraceuticals and the best tools for their evaluation before detailing the safety and toxicity of nutraceuticals and their interactions with other therapeutic drugs.

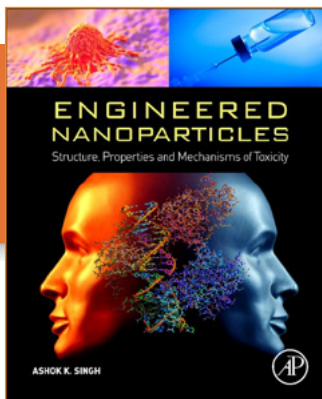
Finally, and crucially, regulatory aspects from around the world are covered, providing a comprehensive overview of the most effective tools for the evaluation, safety, and toxicity of nutraceuticals, prebiotics, probiotics, and alternative medicines.

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**ISBN:** 978-0-12-801406-6

**PUB DATE:** November 2015

**FORMAT:** Paperback

**PAGES:** c. 546

**AUDIENCE**

Toxicologists, risk assessors, graduate and postgraduate students in toxicology, public health and nanotechnology.

## Engineered Nanoparticles

### *Structure, Properties and Mechanisms of Toxicity*

**Ashok K Singh** Associate Professor, Veterinary Population Medicine,  
University of Minnesota, St. Paul, MN, USA



**This introductory reference describes engineered nanomaterials and their potential adverse effects on human health and the environment, highlighting both physicochemical and biomedical properties**

#### KEY FEATURES

- Provides state-of-the-art physicochemical descriptions and methodologies for the characterization of engineered nanomaterials (ENM)
- Describes the potential toxicological effects of ENM and the nanotoxicological mechanisms of action
- Presents how to apply theory to practice in a public health and risk assessment setting

#### DESCRIPTION

*Engineered Nanoparticles: Structure, Properties and Mechanisms of Toxicity* is an indispensable introduction to engineered nanomaterials (ENM) and their potential adverse effects on human health and the environment. Although research in the area of pharmacology and toxicology of ENM is rapidly advancing, a possible correlation between their physicochemical properties and biomedical properties or toxicity is not yet fully understood. This understanding is essential to develop strategies for the safe applications and handling of ENM.

The book comprehensively defines the current understanding of ENM toxicity, first describing these materials and their physicochemical properties, and then discussing the toxicological theory and methodology before finally demonstrating the potential impact of ENM on the environment and human health.

It represents an essential reference for students and investigators in toxicology, pharmacology, chemistry, material sciences, medicine, and those in related disciplines who require an introduction to ENM and their potential toxicological effects.

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## Advances in Molecular Toxicology

Volume 9

**ISBN:** 978-0-12-802229-0

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 288

### AUDIENCE

For academics in the field of chemistry, biochemistry, toxicology, pharmacology and medicine; for Government agencies and those in industry, pharmaceutical and chemical manufacturers

## Advances in Molecular Toxicology, Vol 9

### *Advances in Molecular Toxicology*

Edited by: **James C. Fishbein** Department of Chemistry and Biochemistry,  
University of Maryland, Baltimore, USA

**Jacqueline M. Heilman** Exponent, Inc., Washington, DC, USA



**This series continually publishes cutting-edge reviews in the rapidly evolving field of molecular toxicology, featuring the latest advances in the subspecialties of the broad area of molecular toxicology, and detailing the study of the molecular basis of toxins**

### KEY FEATURES

- Provides cutting-edge reviews by leading workers in the discipline
- Includes in-depth dissection of the molecular aspects of interest to a broad range of scientists, physicians and any student in the allied disciplines
- Presents leading-edge applications of technological innovations in chemistry, biochemistry, and molecular medicine

### DESCRIPTION

*Advances in Molecular Toxicology* features the latest advances in the subspecialties of the broad area of molecular toxicology. This series details the study of the molecular basis of toxicology by which a vast array of agents encountered in the human environment and produced by the human body manifest themselves as toxins.

The book is not strictly limited to documenting these examples, but also covers the complex web of chemical and biological events that give rise to toxin-induced symptoms and disease. The new technologies that are being harnessed to analyze and understand these events will also be reviewed by leading workers in the field.

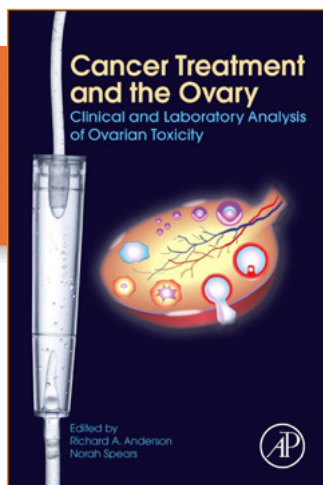
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**ISBN:** 978-0-12-801591-9

**PUB DATE:** October 2015

**FORMAT:** Paperback

**PAGES:** c. 156

#### **AUDIENCE**

Professionals working in the assessment of reproductive toxicological effects of cancer treatments and clinicians working in the fields of reproductive biology and oncology.

## **Cancer Treatment and the Ovary**

### ***Clinical and Laboratory Analysis of Ovarian Toxicity***

Edited by: **Richard A Anderson** Professor of Clinical Reproductive Science, University of Edinburgh, UK

**Norah Spears** Centre for Integrative Physiology, University of Edinburgh, Edinburgh, UK



**Describes both the clinical and laboratory approaches to discovering the potentially adverse effects of cancer treatments on the ovary**

#### **KEY FEATURES**

- Brings together an international group of experts to address the current state of the science of ovarian toxicity caused by cancer treatment
- Provides scientific, clinical, and preclinical approaches to assessing this toxicity
- Describes current techniques and future strategies to protect the ovary
- Ideal reference for the further study of ovarian toxicity, oncofertility, cancer treatment, and reproductive toxicology

#### **DESCRIPTION**

*Cancer Treatment and the Ovary: Clinical and Laboratory Analysis of Ovarian Toxicity* provides the reader with a basic understanding on how the ovary is adversely impacted by cancer treatment, an essential foundational knowledge for this rapidly-developing field.

The book describes both the clinical and laboratory approaches to discovering the potentially adverse effects of cancer treatment on the ovary, also laying out possible preventative approaches and future directions for the field.

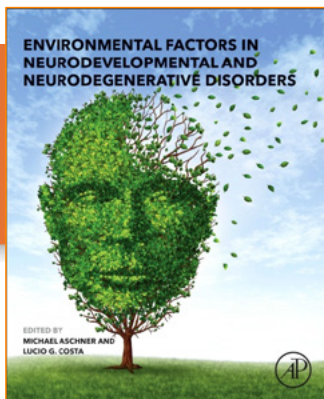
Clinicians working in the field of reproductive biology and oncology will find an essential reference that provides the necessary tools to assess the reproductive toxicological effects of cancer treatments.

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**ISBN:** 978-0-12-800228-5

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 436

**AUDIENCE**

Professional toxicologists,  
environmental health scientists,  
neuroscientists, professors,  
postgraduate students and  
legislative professionals who work  
with neurotoxicology

## Environmental Factors in Neurodevelopmental and Neurodegenerative Disorders

Edited by: **Michael Aschner** Professor, Department of Molecular Pharmacology,  
Albert Einstein College of Medicine, Bronx, NY, USA

**Lucio Costa** Professor, Department of Environmental and Occupational Health  
Sciences, University of Washington



**A state-of-the-art review of the role of environmental chemicals in the etiology of  
neurodevelopmental and neurodegenerative disorders**

### KEY FEATURES

- Provides, for the first time, the cutting-edge theory of environmental impacts on both neurodegenerative and neurodevelopmental disorders
- Written by an international selection of the world's foremost experts in the field of neurotoxicology
- Full-colour throughout, providing accurate and illustrative examples of neurotoxic effects in action
- An invaluable reference for those professionals working in the fields of toxicology, environmental health, and neuroscience

### DESCRIPTION

*Environmental Factors in Neurodevelopmental and Neurodegenerative Disorders* presents a state-of-the-art review of the effects of environmental contaminants on the development and degeneration of the human nervous system, brought together by world-leading experts in the field.

Part One describes the adverse effects that the environment can have on neurological development, and how these effects may exhibit. Specific contaminants and their possible consequences of exposure are addressed (lead, methylmercury, alcohol), as well as specific disorders and the environmental factors associated with them, such as the effect of diet on attention deficit and hyperactivity disorders. Part Two tackles neurodegenerative disorders, specifically addressing their potential neurotoxic origins, and discussing the increasing interest in the effects that early exposure may have in later life.

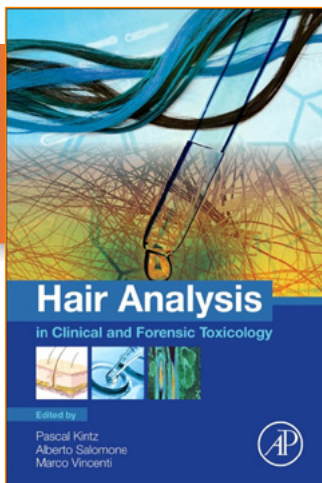
*Environmental Factors in Neurodevelopmental and Neurodegenerative Disorders* is an invaluable reference for those professionals working in the fields of toxicology, environmental health and neuroscience.

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## Hair Analysis in Clinical and Forensic Toxicology

**Pascal Kintz** Ph.D., University L. Pasteur of Strasbourg, France  
**Alberto Salomone** Ph.D., Manager of the Forensic Toxicology Unit at the Regional Anti-doping Centre of Turin, Italy  
**Marco Vincenti** Ph.D., Professor of Analytical Chemistry, University of Turin, Italy.



**A cutting-edge reference on the latest advances in the toxicological analysis of hair in both clinical and forensic laboratories**

### KEY FEATURES

- Unites an international team of leading experts to provide an update on the cutting-edge advances in the toxicological analysis of hair
- Demonstrates toxicological techniques relating to a variety of scenarios and exposure types
- Ideal resource for the further study of the psychoactive substances, drug-facilitated crimes, ecotoxicology, analytical toxicology, occupational toxicology, toxicity testing, and forensic toxicology
- Includes detailed instructions for the collection, preparation, and handling of hair, and how to best interpret results

### DESCRIPTION

*Hair Analysis in Clinical and Forensic Toxicology* is an essential reference for toxicologists working with, and researching, hair analysis. The text presents a review of the most up-to-date analytical methods in toxicological hair analysis, along with state-of-the-art developments in the areas of hair physiology, sampling, and pre-treatments, as well as discussions of fundamental issues, applications, and results interpretation.

Topics addressed include the diagnosis of chronic excessive alcohol drinking by means of ethyl glucuronide (EtG) and fatty acid ethyl esters (FAEE), the early detection of new psychoactive substances, including designer drugs, the development of novel approaches to screening tests based on mass spectrometry, and the detection of prenatal exposure to psychoactive substances from the analysis of newborn hair.

**ISBN:** 978-0-12-801700-5

**PUB DATE:** August 2015

**FORMAT:** Paperback

**PAGES:** c. 380

### AUDIENCE

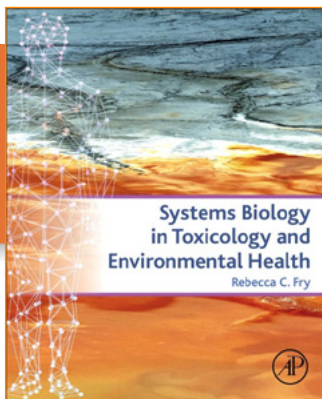
Professional toxicologists working in forensic and clinical laboratories, analytical chemists, lawyers and judges.

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**ISBN:** 978-0-12-801564-3

**PUB DATE:** July 2015

**FORMAT:** Paperback

**PAGES:** c. 272

**AUDIENCE**

Professional researchers and graduate and postgraduate students new to the fields of toxicology and environmental health.

## Systems Biology in Toxicology and Environmental Health

Edited by: **Rebecca Fry** Associate Professor, Environmental Sciences and Engineering, Gillings School of Global Public Health, University of North Carolina Chapel Hill, Chapel Hill, NC, USA



**A comprehensive introduction to the use of systems biology in assessing environmental exposures of contaminants and their human health impacts**

### KEY FEATURES

- Provides the first reference of its kind, demonstrating the application of systems biology in environmental health and toxicology
- Includes introductions to the diverse fields of molecular and cellular biology, toxicology, and computational biology
- Presents a foundation that helps users understand the connections between the environment and health effects, and the biological mechanisms that link them

### DESCRIPTION

***Systems Biology in Toxicology and Environmental Health*** uses a systems biological perspective to detail the most recent findings that link environmental exposures to human disease, providing an overview of molecular pathways that are essential for cellular survival after exposure to environmental toxicants, recent findings on gene-environment interactions influencing environmental agent-induced diseases, and the development of computational methods to predict susceptibility to environmental agents. Introductory chapters on molecular and cellular biology, toxicology and computational biology are included as well as an assessment of systems-based tools used to evaluate environmental health risks. Further topics include research on environmental toxicants relevant to human health and disease, various high-throughput technologies and computational methods, along with descriptions of the biological pathways associated with disease and the developmental origins of disease as they relate to environmental contaminants.

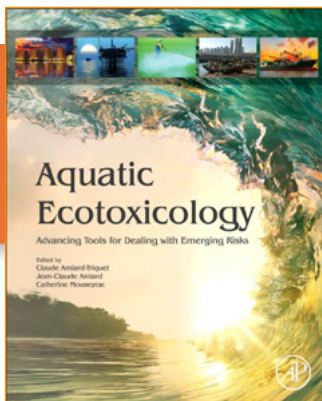
***Systems Biology in Toxicology and Environmental Health*** is an essential reference for undergraduate students, graduate students, and researchers looking for an introduction in the use of systems biology approaches to assess environmental exposures and their impacts on human health.

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**ISBN:** 978-0-12-800949-9

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**FORMAT:** Hardback

**PAGES:** c. 504

**AUDIENCE**

Professional toxicologists,  
researchers and graduate students  
in the field of aquatic ecotoxicology  
and risk assessment

## Aquatic Ecotoxicology

### *Advancing Tools for Dealing with Emerging Risks*

Edited by: **Claude Amiard-Triquet** Honorary Research Director, Centre National de la Recherche Scientifique (CNRS), University of Nantes, France; Invited Professor at Ocean University of China, Qingdao

**Jean-Claude Amiard** Emeritus Research Director, CNRS, University of Nantes, France; Invited Professor at Ocean University of China, Qingdao

**Catherine Mouneyrac** Professor of Aquatic Ecotoxicology and Dean of the Faculty of Sciences, Université Catholique de L'Ouest, Angers, France



**A comprehensive reference that presents a detailed assessment of recent advances in aquatic ecotoxicology and practical guidance on their use**

#### KEY FEATURES

- Provides the latest perspectives on emerging toxic risks to aquatic environments, such as nanomaterials, pharmaceuticals, chemical mixtures, and perfluorooctane sulfonate (PFOS)
- Offers practical guidance on recent advances to help in choosing the most appropriate toxicological assay
- Presents case studies and information on a variety of reference species to help put the ecotoxicological theory into practical risk assess

#### DESCRIPTION

*Aquatic Ecotoxicology: Advancing Tools for Dealing with Emerging Risks* presents a thorough look at recent advances in aquatic ecotoxicology and their application in assessing the risk of well-known and emerging environmental contaminants.

This essential reference, brought together by leading experts in the field, guides users through existing and novel approaches to environmental risk assessment, then presenting recent advances in the field of ecotoxicology, including omics-based technologies, biomarkers, and reference species.

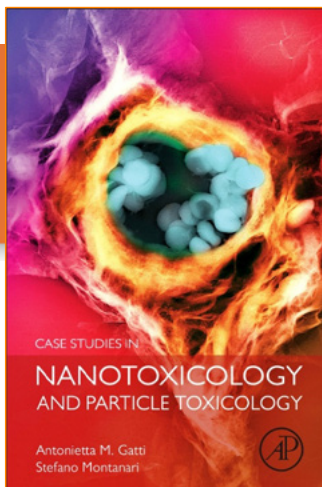
The book then demonstrates how these advances can be used to design and perform assays to discover the toxicological endpoints of emerging risks within the aquatic environment, such as nanomaterials, personal care products, PFOS and chemical mixtures. The text is an invaluable reference for any scientist who studies the effects of contaminants on organisms that live within aquatic environments.

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## Case Studies in Nanotoxicology and Particle Toxicology

**Antonietta M Gatti** Associate Professor, National Research Council, Rome, Italy; Visiting Professor, Institute for Advanced Sciences Convergence, US Department of State, Washington DC, USA; Founder, Nanodiagnostics Srl, Modena, Italy

**Stefano Montanari** Director, Nanodiagnostics Srl



**Real-life cases that demonstrate the adverse effects that nanoparticles and other particles have on both the human body and the environment**

### KEY FEATURES

- Presents real-life cases showing the potential risks to human health following exposure to nanoparticles
- An ideal reference for anyone working in the risk assessment of nanoparticles, including nanosafety professionals, occupational toxicologists, regulatory toxicologists, and clinicians
- Provides examples to help assess risks of handling engineered nanomaterials
- Advises on the best forms of protection and the safest nanotechnological products

### DESCRIPTION

*Case Studies in Nanotoxicology and Particle Toxicology* presents a highly-illustrated analysis of the most prominent cases on the adverse effects of nanoparticles and their impact on humans and the environment.

This comprehensive reference demonstrates the possible risks imposed by managing and handling nanoparticles, showing the effects of involuntary inhalation or ingestion during their use and after their incineration.

Through the use of numerous examples, readers will discover the possible risks and effects of working with nanoparticles, along with best practices to prevent these effects. The text is an essential reference for anyone working in the risk assessment of nanoparticles, including nanosafety professionals, occupational toxicologists, regulatory toxicologists, and clinicians.

**ISBN:** 978-0-12-801215-4

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**FORMAT:** Hardback

**PAGES:** c. 260

### AUDIENCE

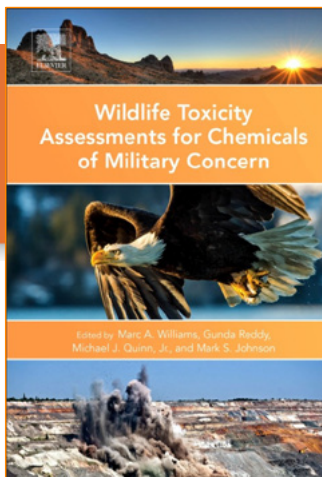
Toxicologists, risk assessors, graduate students in toxicology, regulators and policy makers, clinicians

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**ISBN:** 978-0-12-800020-5

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**FORMAT:** Hardback

**PAGES:** c. 692

#### **AUDIENCE**

Ecological risk assessors and toxicologists in government and industry organizations; graduate ecotoxicology students; industry, consulting and litigation professionals using risk assessments of contaminated environments

## **Wildlife Toxicity Assessments for Chemicals of Military Concern**

**Mark Williams** Toxicology Portfolio, Health Effects Research Program, U.S. Army, Maryland, USA; **Gunda Reddy** Toxicology Portfolio, Health Effects Research Program, U.S. Army, Maryland, USA; **Michael Quinn** Toxicology Portfolio, Health Effects Research Program, U.S. Army, Maryland, USA; **Mark S Johnson** Toxicology Portfolio, Health Effects Research Program, U.S. Army, Maryland, USA



**A peerless reference for the derivation, use and evaluation of wildlife toxicity assessments for environmental and human health**

#### **KEY FEATURES**

- Provides detailed information on how Wildlife Toxicity Values (TRVs) for military chemicals of concern are derived and evaluated.
- Covers wildlife toxicity assessments of explosives, metals and environmental chemicals.
- Compiles relevant information on the environmental effects of chemicals on wildlife in relation to public and environmental health.

#### **DESCRIPTION**

***Wildlife Toxicity Assessments for Chemicals of Military Concern*** is a compendium of chemical-specific toxicity information with discussions on the rationale and development of Wildlife Toxicity Reference Values (TRVs) intended for use on terrestrial wildlife for risk assessment applications. Substances covered include military-related chemicals including explosives, propellants, pesticides and metals.

***Wildlife Toxicity Assessments for Chemicals of Military Concern*** is a much-needed resource designed to meet the needs of those seeking toxicological information for ecological risk assessment purposes. Each chapter targets a specific chemical and considers the current knowledge of the toxicological impacts of chemicals to terrestrial wildlife including mammalian, avian, amphibian and reptilian species.

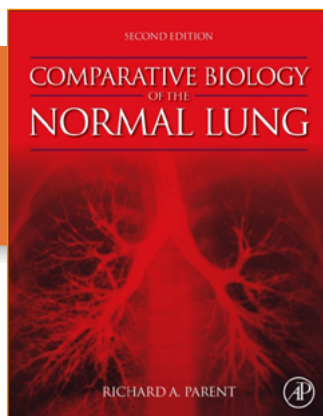
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**FORMAT:** Hardback

**PAGES:** c. 816

**AUDIENCE**

Toxicologists, Toxicologic Pathologists, Pulmonologists, Chest Physicians, Veterinary Medicine professionals and more.

## Comparative Biology of the Normal Lung, 2e

Edited by: **Richard A. Parent** PhD, DABT, FATS, RAC, ERT, Founder and Consultant, Consultox, Ltd., Damariscotta, Maine



**This new edition reflects the most current research in the field of comparative biology, making it an essential treatise for comparative lung content in toxicology**

Book review of the 1st edition in *Occupational and Environmental Medicine* journal (Nov 1995):

"This comprehensive volume is the first of a planned series of four dealing with pulmonary toxicology. As a source of information on the comparative biology of the mammalian lung it is unrivalled....There is no doubt that this is an excellent book: but who should buy it, given that it is not cheap at £120? Anybody who is professionally concerned with the biology of the lung should have access to a copy...If the next three volumes are as good as this then the series will be a benchmark publication in inhalation toxicology." – R.L. Maynard

### KEY FEATURES

- Edited and authored by experts in the field to provide an excellent and timely review of cross-species comparisons that will help you interpret and compare data from animal studies to human findings
- Incorporates lung anatomy and physiology, cell specific interactions and immunological responses to provide you with a single and unique multidisciplinary source on the comparative biology of the normal lung
- Includes new and expanded content on neonatal and aged lungs, developmental processes, cell signaling, antioxidants, airway cells, safety pharmacology and much more
- Section IV on Physical and Immunological Defenses has been significantly updated with 9 new chapters and an increased focus on the pulmonary immunological system

### DESCRIPTION

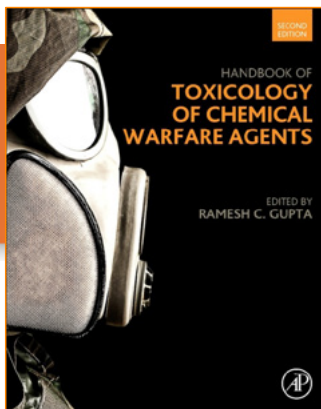
**Comparative Biology of the Normal Lung, 2nd Edition**, offers a rigorous and comprehensive reference for all those involved in pulmonary research. This fully updated work is divided into sections on anatomy and morphology, physiology, biochemistry, and immunological response. It continues to provide a unique comparative perspective on the mammalian lung. This edition includes several new chapters and expanded content, including aging and development of the normal lung, mechanical properties of the lung, genetic polymorphisms, the comparative effect of stress of pulmonary immune function, oxygen signaling in the mammalian lung and much more. By addressing scientific advances and critical issues in lung research, this 2nd edition is a timely and valuable work on comparative data for the interpretation of studies of animal models as compared to the human lung.

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ISBN: 978-0-12-800159-2

**PREVIOUS EDITION ISBN:**  
978-0-12-374484-5

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 1184

**AUDIENCE**

Toxicologists, defence scientists, homeland and governmental security agents, and risk assessment specialists

## Handbook of Toxicology of Chemical Warfare Agents, 2e

Edited by: **Ramesh C. Gupta** DVM, MVSc, PhD, DABT, FACT, FACN, FATS, Professor and Head, Toxicology Department, Breathitt Veterinary Center, Murray State University, Hopkinsville, KY, USA



**Covers every aspect of deadly toxic chemicals used in conflicts, warfare and terrorism**

"...a large, high-quality publication...provides a broader perspective than the few other titles in this field. This edition expands topics and updates references, driven by the ongoing threat, use, and research of chemical warfare agents around the world. Score: 92 - 4 Stars"--**Doody's, Handbook of Toxicology of Chemical Warfare Agents, Second Edition**

**KEY FEATURES**

- Unites world-leading experts to present cutting-edge, agent-specific information on chemical warfare agents and their adverse effects on human and animal health and the environment.
- Covers all aspects of chemical warfare agent modes of action, detection, prevention, therapeutic treatment and countermeasures.
- Features a full update on the first edition to reflect the most recent advances in the field as well as nine new chapters.

**DESCRIPTION**

*Handbook of Toxicology of Chemical Warfare Agents, Second Edition* covers every aspect of deadly toxic chemicals used in conflicts, warfare and terrorism. Including findings from experimental as well as clinical studies, this essential reference offers in-depth coverage of individual toxicants, target organ toxicity, major incidents, toxic effects in humans, animals and wildlife, biosensors and biomarkers, on-site and laboratory analytical methods, decontamination and detoxification procedures, and countermeasures.

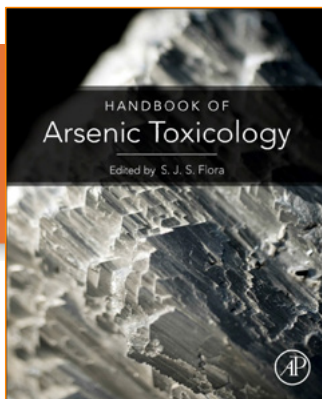
Expanding on the ground-breaking first edition, *Handbook of Toxicology of Chemical Warfare Agents* has been completely updated, presenting the most recent advances in field. Brand new chapters include a case study of the Iran-Iraq war, an overview of chemical weapons of mass destruction, explosives, ricin, the human respiratory system, alternative testing methods, brain injuries, and more.

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**ISBN:** 978-0-12-418688-0

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**FORMAT:** Hardback

**PAGES:** c. 724

#### AUDIENCE

Researchers in the fields of toxicology, pharmacology, biochemistry and environmental science medical practitioners.

## Handbook of Arsenic Toxicology

**Swaran Jeet Singh . Flora** MSc, PhD, FNASc, FAEB, FABP, FSSE, Associate Director and Head, Pharmacology, Toxicology and Regulatory Toxicology Department, Defence Research and Development Establishment, Ministry of Defence, Government of India, Gwalior, India



**An in-depth resource detailing the manner, effects and countermeasures of arsenic exposure**

#### KEY FEATURES

- Brings together current findings on the effects of arsenic on the environment and human health
- Includes state-of-the-art techniques in arsenic toxicokinetics, speciation and molecular mechanisms
- Provides all the information needed for effective risk assessment, prevention and countermeasure

#### DESCRIPTION

Throughout history, arsenic has been used as an effective and lethal poison. Today, arsenic continues to present a real threat to human health all over the world, as it contaminates groundwater and food supplies. *Handbook of Arsenic Toxicology* presents the latest findings on arsenic, its chemistry, its sources and its acute and chronic effects on the environment and human health. The book takes readings systematically through the target organs, before detailing current preventative and counter measures. This reference enables readers to effectively assess the risks related to arsenic, and provide a comprehensive look at arsenic exposure, toxicity and toxicity prevention.

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**FORMAT:** Hardback

**PAGES:** c. 300

**AUDIENCE**

Pharmacologists, immunologists,  
and biochemists

## Advances in Pharmacology, Vol 75

### *Pharmacological Mechanisms and the Modulation of Pain*

Edited by: **James E Barrett** Department of Pharmacology & Physiology,  
Drexel University College of Medicine, USA



**This new volume in the *Advances in Pharmacology* series focuses on the pharmacological mechanisms and the modulation of pain, and is an essential resource for pharmacologists, immunologists, and biochemists alike**

Praise for the Series: "...recommended not only to pharmacologists but also to all those in related disciplines" - NATURE

#### KEY FEATURES

- Contains contributions from the best authors in the field of pharmacology that focus on the pharmacological mechanisms and modulation of pain
- Provides an essential resource for pharmacologists, immunologists, and biochemists

#### DESCRIPTION

*Pharmacological Mechanisms and the Modulation of Pain*, the newest volume in the *Advances in Pharmacology* series, presents the pharmacological mechanisms and the modulation of pain. With a variety of chapters and the best authors in the field, this volume is an essential resource for pharmacologists, immunologists, and biochemists alike.

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*Profiles of  
Drug Substances,  
Excipients, and  
Related Methodology  
Volume 41*



**ISBN:** 978-0-12-804784-2

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 552

**AUDIENCE**

Medicinal, pharmaceutical, and  
analytical chemists; pharmacologists

**Profiles of Drug Substances, Excipients and  
Related Methodology, Vol 41**

*Profiles of Drug Substances, Excipients, and Related  
Methodology*

Edited by: **Harry G. Brittain** Center for Pharmaceutical Physics, Milford, NJ,  
USA



**This widely revered series presents comprehensive reviews of drug substances, excipients and additional materials, written by experts in the field**

Praise for the Series: "This series was first published in 1972 and represents a very important contribution to the practice of pharmaceutical analysis." - THE ANALYST

**KEY FEATURES**

- Contributions from leading authorities
- Informs and updates on all the latest developments in the field

**DESCRIPTION**

Volumes in this widely revered series present comprehensive reviews of drug substances and additional materials, with critical review chapters that summarize information related to the characterization of drug substances and excipients. This organizational structure meets the needs of the pharmaceutical community and allows for the development of a timely vehicle for publishing review materials on this topic.

The scope of the Profiles series encompasses review articles and database compilations that fall within one of the following six broad categories: Physical profiles of drug substances and excipients; Analytical profiles of drug substances and excipients; Drug metabolism and pharmacokinetic profiles of drug substances and excipients; Methodology related to the characterization of drug substances and excipients; Methods of chemical synthesis; and Reviews of the uses and applications for individual drug substances, classes of drug substances, or excipients.

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# SIDE EFFECTS OF DRUGS ANNUAL 37

Sidhartha D. Ray, Editor  
Joshua P. Gray, Mary E. Kiersma, Associate Editors



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## Side Effects of Drugs Annual, Vol 37

### *Side Effects of Drugs Annual*

Edited by: **Sidhartha D. Ray** Department of Pharmaceutical Sciences,  
Manchester University, College of Pharmacy, Fort Wayne, IN, USA



**This book provides clinicians and medical investigators with a reliable and critical yearly survey of the side effects of drugs and new data and trends in the area of adverse drug reactions and interactions; SEDA is an outstanding compilation of the most recent literature and critical discussions on the case studies that research and report on the side effects of drugs**

#### KEY FEATURES

- Provides a critical yearly survey of the new data and trends regarding the side effects of drugs
- Authored and reviewed by pioneers throughout the world in the clinical and practice sciences
- Presents an essential clinical on the side effects of drugs for practitioners and healthcare professionals

#### DESCRIPTION

*Side Effects of Drugs Annual: A Worldwide Yearly Survey of New Data in Adverse Drug Reactions* was first published in 1977, and has been continually published as a yearly update to the voluminous encyclopedia *Meyler's Side Effects of Drugs*. Each Annual provides clinicians and medical investigators with a reliable and critical survey of new data and trends in the area of adverse drug reactions and interactions, with an international team of specialists contributing their expertise each year.

**ISBN:** 978-0-444-63525-9

**PUB DATE:** November 2015

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**PAGES:** c. 652

#### AUDIENCE

Pharmacologists, clinicians,  
pharmaceutical companies, clinical  
toxicologists, clinical  
pharmacologists and medical  
libraries.

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**CYTOCHROME P450  
FUNCTION AND  
PHARMACOLOGICAL  
ROLES IN INFLAMMATION  
AND CANCER**

\*\*\*\*\* EDITED BY

JAMES P. HARDWICK

Series Editor, A. J. Cole



ADVANCES IN  
PHARMACOLOGY

**ISBN:** 978-0-12-803119-3

**PUB DATE:** July 2015

**FORMAT:** Hardback

**PAGES:** c. 474

**AUDIENCE**

Pharmacologists, immunologists,  
and biochemists

## Advances in Pharmacology, Vol 74

### *Cytochrome P450 Function and Pharmacological Roles in Inflammation and Cancer*

Edited by: **James P Hardwick** Northeast Ohio Medical University, Ohio, USA



**Highlights the role of cytochrome P450 function and its pharmacological roles in inflammation and cancer**

Praise for the Series: "...recommended not only to pharmacologists but also to all those in related disciplines" - NATURE

#### KEY FEATURES

- Contains contributions from the best authors in the field
- Ideal reference for those conducting research in cancer, inflammation, cytochrome P450, metabolism, liver disease, and oxidative stress
- Provides an essential resource for pharmacologists, immunologists, and biochemists

#### DESCRIPTION

*Cytochrome P450 Function and Pharmacological Roles in Inflammation and Cancer*, the latest volume in the *Advances in Pharmacology* series, presents not only the function of cytochrome P450 but also its pharmacological roles in inflammation and cancer.

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**ISBN:** 978-0-12-802658-8

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 270

**AUDIENCE**

Pharmacologists and  
Neuroscientists

## Advances in Pharmacology, Vol 73

### *Diversity and Functions of GABA Receptors: A Tribute to Hanns Möhler, Part B*

Edited by: **Uwe Rudolph** Genetic Neuropharmacology Laboratory, McLean Hospital, Belmont, MA, USA



**This new volume of *Advances in Pharmacology* highlights the role of GABAA receptor diversity.**

#### KEY FEATURES

- Contributions from the best authors in the field
- An essential resource for pharmacologists, immunologists, and biochemists

#### DESCRIPTION

*Diversity and Functions of GABA Receptors: A Tribute to Hanns Möhler, Part B*, a new volume of *Advances in Pharmacology*, presents the diversity and functions of GABA Receptors. The volume looks at research performed in the past 20 years, which has revealed specific physiological and pharmacological functions of individual GABAA receptor subtypes, providing novel opportunities for drug development.

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**DIVERSITY AND  
FUNCTIONS OF GABA  
RECEPTORS: A TRIBUTE  
TO HANNS MÖHLER,  
PART A**

EDITED BY  
**UWE RUDOLPH**  
Series Editor: S. J. Datta



ADVANCES IN  
PHARMACOLOGY

**ISBN:** 978-0-12-802660-1

**PUB DATE:** January 2015

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**PAGES:** c. 268

**AUDIENCE**

Pharmacologists and  
Neuroscientists

## Advances in Pharmacology, Vol 72

*Diversity and Functions of GABA Receptors: A Tribute to  
Hanns Möhler, Part A*

Edited by: **Uwe Rudolph** Genetic Neuropharmacology Laboratory, McLean  
Hospital, Belmont, MA, USA



**This new volume of *Advances in Pharmacology* will highlight the role of GABA<sub>A</sub> receptor diversity**

Praise for the Series: "...recommended not only to pharmacologists but also to all those in related disciplines" - NATURE

### KEY FEATURES

- Contributions from the best authors in the field
- An essential resource for pharmacologists, immunologists, and biochemists

### DESCRIPTION

This new volume of *Advances in Pharmacology* presents the diversity and functions of GABA Receptors. The volume looks at research performed in the past 20 years which has revealed specific physiological and pharmacological functions of individual GABA<sub>A</sub> receptor subtypes, providing novel opportunities for drug development.

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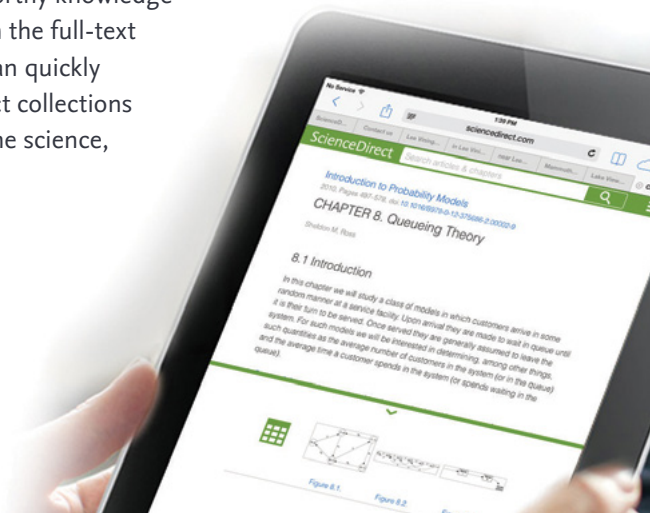
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