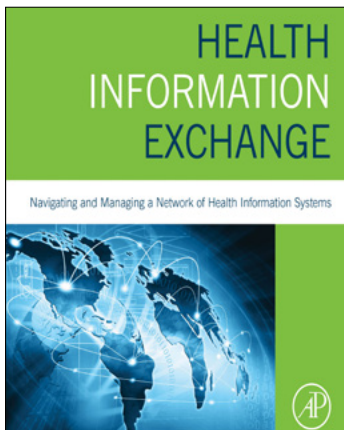
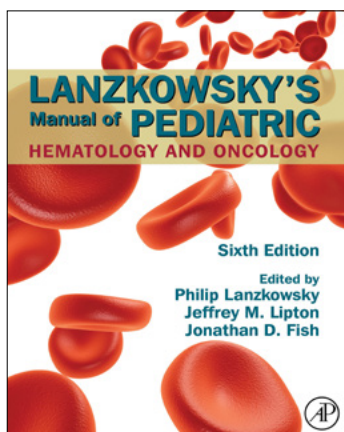
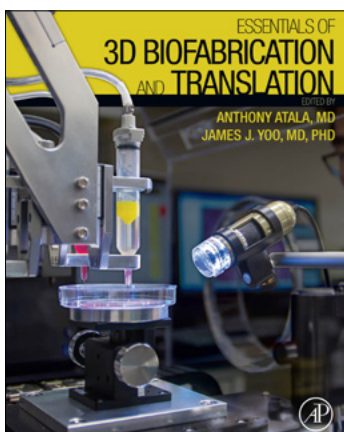




# BIOMEDICAL SCIENCE & MEDICINE



## 2016 CATALOG



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# Table of Contents

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## Pricing

Publication dates, prices, and other details subject to change without notice.

<b>Biomedical Science &amp; Medicine .....</b>	<b>2</b>
<b>Life Sciences .....</b>	<b>18</b>
<b>Medical .....</b>	<b>21</b>
<b>Professional &amp; Career Development.....</b>	<b>94</b>
<b>Toxicology.....</b>	<b>99</b>
<b>Serials.....</b>	<b>103</b>
<b>Titles Index .....</b>	<b>120</b>
<b>Sales Representatives Index .....</b>	<b>125</b>
<b>Elsevier Books Customer Service Contacts .....</b>	<b>130</b>
<b>Imprints .....</b>	<b>131</b>



**ISBN:** 978-0-08-100141-7

**PUB DATE:** February 2016

**FORMAT:** Hardback

**PAGES:** c. 164

#### **AUDIENCE**

Researchers and students, entrepreneurs, information professionals

## **Virtual Business Models**

### ***Entrepreneurial Risks and Rewards***

**Karin Bryder** Project Manager, Pharmaceutical field

**Anki Malmberg-Hager** Board member and Investment director, Biotech companies

**Eskil Söderlind** Investment Director, CEO and board member, Avena Partners



**This book focuses on companies with technology development, offering inspiration, guidance, and hands-on advice on how to utilize the potential of a virtual company format to ensure that financial resources can be optimized in a way that provides cost-effective product development**

#### **KEY FEATURES**

- Provides an overview, and understanding of, a virtual company's key activities
- Presents tactics that encourage communication between stakeholders associated with the virtual company
- Allows users to master all details, while managing key strategic issues
- Covers technology development and its required special skills and competencies

#### **DESCRIPTION**

*Virtual Business Models: Entrepreneurial Risks and Rewards* focuses on companies with technology development, offering inspiration, guidance, and hands-on advice on how to utilize the potential of a virtual company format.

The book provides an overview of key aspects of the company's activities, putting them into a comprehensive structure. In addition, both the rewards and risks of using the virtual company format are explored.

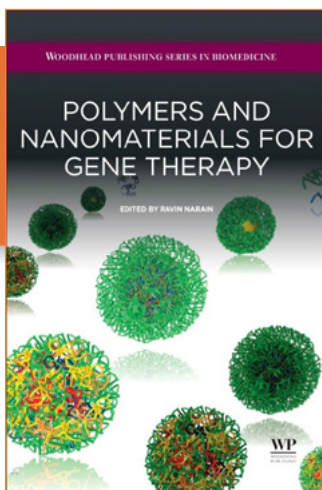
The virtual company format is here defined as a company with a small dedicated core staff. The company's development is performed by strategic alliances with external resource providers. In this way, the utilization of financial resources can be optimized with cost-effective product development. The book explores this concept and why it is attractive in a start-up phase for both companies who want to remain virtual and those that eventually want to develop into integrated traditional companies.

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**ISBN:** 978-0-08-100520-0

**PUB DATE:** January 2016

**FORMAT:** Hardback

**PAGES:** c. 280

#### **AUDIENCE**

Academics and graduate students researching gene therapy, and clinical scientists investigating cancer and other genetic diseases.

## **Polymers and Nanomaterials for Gene Therapy**

Edited by: **Ravin Narain** Associate Professor, Department of Chemical and Materials Engineering, University of Alberta, Edmonton, AB, Canada



**This comprehensive study of polymers and nanomaterials for gene therapy explores the most recent developments in the field of polymer science and nanotechnology, and how these developments have helped in the design of advanced materials.**

#### **KEY FEATURES**

- Explores current challenges in the research of genetic diseases
- Discusses polymers for gene therapy and their function in designing advanced materials
- Provides examples of organic and inorganic nanomaterials for gene therapy
- Includes labeling, targeting, and assays
- Looks at characterization, physico-(bio)chemical properties, and applications

#### **DESCRIPTION**

*Polymers and Nanomaterials for Gene Therapy* provides the latest information on gene therapy, a topic that has attracted significant attention over the past two decades for the treatment of inherited and acquired genetic diseases. Major research efforts are currently focused on designing suitable carrier vectors that compact and protect oligonucleotides for gene therapy.

The book explores the most recent developments in the field of polymer science and nanotechnology, and how these advancements have helped in the design of advanced materials. Non-viral vector systems, including cationic lipids, polymers, dendrimers, peptides and nanoparticles, are potential routes for compacting DNA for systemic delivery. However, unlike viral analogues that have no difficulty in overcoming cellular barriers and immune defense mechanisms, non-viral gene carriers consistently exhibit significant reduced transfection efficiency due to numerous extra- and intracellular obstacles. Therefore, biocompatibility and potential for large-scale production make these compounds increasingly attractive for gene therapy.

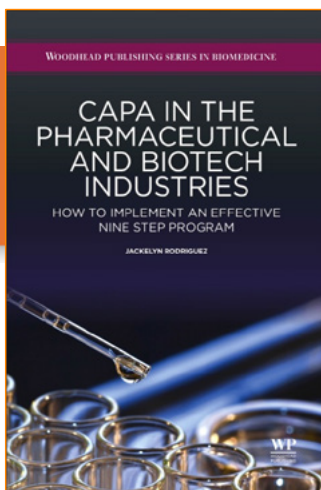
This book contains chapters on the engineering of polymers and nanomaterials for gene therapy, and how they can form complexes with DNA and avoid both in vitro and in vivo barriers. Other chapters describe in vitro, ex vivo, in vivo gene therapy studies, and the current issues affecting non-viral gene therapy.

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**ISBN:** 978-1-907568-58-9

**PUB DATE:** December 2015

**FORMAT:** Hardback

**PAGES:** c. 234

**AUDIENCE**

Researchers and Students in the Pharmaceutical and Biotech industries

## CAPA in the Pharmaceutical and Biotech Industries

*How to Implement an Effective Nine Step Program*

*J Rodriguez* President, Monarch Quality Systems Solution, USA



**This book contains the most current information on how to implement, develop, and maintain an effective Corrective Action and Preventive Action (CAPA) using a nine-step, closed-loop process approach for medical devices and pharmaceutical and biologic manufacturers, as well as anyone who has to maintain a quality system.**

A Volume in the Woodhead Publishing Series in Biomedicine.

### KEY FEATURES

- Provides an understanding of the principles and techniques involved in the effective implementation of a CAPA program, from the identification of the problem, to the verification of preventive action
- Emphasis is placed on the practical aspects of how to perform failure investigations and root cause analysis through the use of several types of methodologies, all explained in detail
- Provides effective methods to use with a Corrective Action system to help quality professionals identify costly issues and resolve them quickly and appropriately

### DESCRIPTION

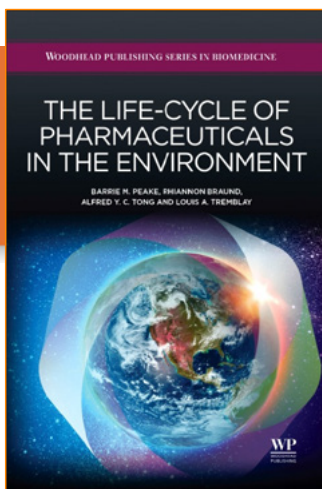
*CAPA in the Pharmaceutical and Biotech Industries: How to Implement an Effective Nine Step Program* contains the most current information on how to implement, develop, and maintain an effective Corrective Action and Preventive Action (CAPA) and investigation program using a nine step closed-loop process approach for medical devices and pharmaceutical and biologic manufacturers, as well as any anyone who has to maintain a quality system. This book addresses how companies often make the mistake of fixing problems in their processes by revising procedures or, more commonly, by retraining employees that may or may not have caused the problem. This event-focused fix leads to the false assumption that the errors have been eradicated and will be prevented in the future. The reality is that the causes of the failure were never actually determined, therefore the same problem will recur over and over. CAPA is a complete system that collects information regarding existing and potential quality problems. It analyzes and investigates the issues to identify the root cause of nonconformities. It is not just a quick-fix, simple approach, it is a process and has to be understood throughout organizations.

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**ISBN:** 978-1-907568-25-1

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 256

**AUDIENCE**

Scientists, researchers and students  
in the area of Pharmaceuticals.

## The Life-Cycle of Pharmaceuticals in the Environment

**Barrie M Peake** Associate Professor, Environmental Chemistry, Department of Chemistry, University of Otago, Dunedin, New Zealand; **Rhiannon Braund** Associate Professor, School of Pharmacy, University of Otago, Dunedin, New Zealand; **Alfred Tong** Doctoral graduate, School of Pharmacy and the Department of Chemistry, University of Otago, Dunedin, New Zealand; **Louis Trembay** Ecotoxicologist, Cawthron Institute, Nelson, New Zealand and Senior lecturer, School of Biological Sciences, University of Auckland, Auckland, New Zealand



**This book explores the impact of pharmaceuticals in the environment, including the role of global prescribing and the measurement of pharmaceutical levels in natural water, such as raw and treated sewage, and in potable water, along with methods currently available to degrade pharmaceuticals in natural waters.**

A Volume in the Woodhead Publishing Series in Biomedicine.

### KEY FEATURES

- Encompasses the full lifecycle of common pharmaceuticals, from prescription and dispensing practices to their occurrence in a range of different types of natural waters and their environmental impact
- Explores the role of the healthcare system and its affect on users
- Beneficial for environmental engineers involved in the design and operation of appropriate degradation technologies of the pharmaceutical prescription and disposal practices

### DESCRIPTION

The Life-Cycle of Pharmaceuticals in the Environment identifies pathways of entry of pharmaceuticals into the environment, beginning with the role of global prescribing and disposal practices. The book then discusses typical levels of common pharmaceuticals and how they can be determined in natural waters such as raw and treated sewage, and in potable water. In addition, sections examine methods currently available to degrade pharmaceuticals in natural waters and some of their ecotoxicological impacts, along with future considerations and the growing concept of product stewardship.

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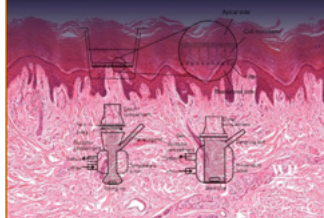


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CONCEPTS AND MODELS FOR  
DRUG PERMEABILITY STUDIESCELL AND TISSUE BASED IN VITRO  
CULTURE MODELS

EDITED BY BRUNO SARMENTO



ISBN: 978-0-08-100094-6

PUB DATE: October 2015

FORMAT: Hardback

PAGES: c. 386

## AUDIENCE

The major target market is that of drug discovery and drug formulation scientists interested in drug delivery systems administered through mucosal routes. The book might also be particularly interesting to post-graduate students of biotechnology, pharmaceutical sciences, biochemistry, medicine or any related biomedical subject.

Concepts and Models for Drug Permeability  
Studies*Cell and Tissue based In Vitro Culture Models*

**Bruno Filipe Carmelino Cardoso Sarmento** Affiliated Investigator, INEB– Instituto de Engenharia Biomédica, University of Porto, Portugal and Assistant Professor, Pharmaceutical Technology, Department of Pharmaceutical Sciences, ISCS-N, Gandra, Portugal



**The most important buccal, gastric, intestinal, pulmonary, nasal, vaginal, ocular, skin and blood-brain barrier in vitro models for predicting the permeability of drugs**

## KEY FEATURES

- Updated information regarding the most recent in vitro models to study the permeability of drugs
- Short and concise chapters covering all the biological barriers with interest in drug permeability
- A combination of bibliographic information related with individual models and footnote instructions of technical procedures for construction of cell and tissue-based models
- Simple and clear scientific content, adaptable for young scientists and experimented researchers

## DESCRIPTION

This book intends to be an updated compilation of the most important buccal, gastric, intestinal, pulmonary, nasal, vaginal, ocular, skin and blood-brain barrier in vitro models for predicting the permeability of drugs. *Concepts and Models for Drug Permeability Studies* focuses on different approaches and comprises of various models. Each model describes the protocol of seeding and conservation, the application for specific drugs, and takes into account the maintenance of physiologic characteristics and functionality of epithelium, from the simplest immortalized cell-based monoculture to the most complex engineered-tissue models. Chapters also discuss the equivalence between in vitro cell and tissue models and in vivo conditions, highlighting how each model may provisionally resemble a different drug absorption route.

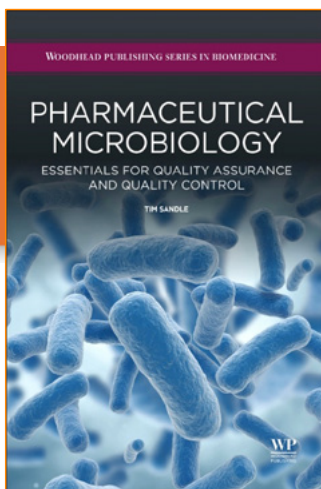
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**ISBN:** 978-0-08-100022-9

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 298

#### **AUDIENCE**

The audience for this book includes Pharmaceutical companies, pharmacies, Biotechnology companies and students primarily undertaking MSc courses.

## **Pharmaceutical Microbiology**

### *Essentials for Quality Assurance and Quality Control*

**Tim Sandle** Head of Microbiology, the Bio Products Laboratory, Elstree, UK and Visiting Tutor, School of Pharmacy and Pharmaceutical Sciences, Manchester University, UK



**This book provides pharmaceutical microbiologists with everything they need to know, from regulatory filing and GMP information, to laboratory design and management, compendia tests, and the risk assessment tools and techniques for both sterile and non-sterile products.**

#### **KEY FEATURES**

- Contains the applications of pharmaceutical microbiology in sterile and non-sterile products
- Presents the practical aspects of pharmaceutical microbiology testing
- Provides contamination control risks and remediation strategies, along with rapid microbiological methods
- Includes bioburden, endotoxin, and specific microbial risks
- Highlights relevant case studies and risk assessment scenarios

#### **DESCRIPTION**

Pharmaceutical Microbiology: Essentials for Quality Assurance and Quality Control presents the latest information on protecting pharmaceutical and healthcare products from spoilage by microorganisms, and protecting patients and consumers. With both sterile and non-sterile products, the effects can range from discoloration to the potential for fatality.

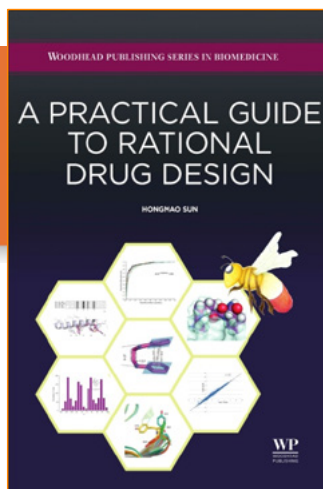
The book provides an overview of the function of the pharmaceutical microbiologist and what they need to know, from regulatory filing and GMP, to laboratory design and management, and compendia tests and risk assessment tools and techniques. These key aspects are discussed through a series of dedicated chapters, with topics covering auditing, validation, data analysis, bioburden, toxins, microbial identification, culture media, and contamination control.

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**ISBN:** 978-0-08-100098-4

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 276

#### **AUDIENCE**

Research scientists in big pharmaceutical and biotechnology companies, as well as professors and graduate students.

## **A Practical Guide to Rational Drug Design**

*Sun Hongmao* Researcher, National Institutes of Health, Maryland, USA.



**This book provides real-world examples of all aspects of rational drug design**

#### **KEY FEATURES**

- Discusses various tactics applicable to daily drug design
- Readers can download the materials used in the book, including structures, scripts, raw data, protocols, and codes, making this book suitable resource for short courses or workshops
- Offers a unique viewpoint on drug discovery research due to the author's cross-discipline education background
- Explores the author's rich experiences in both pharmaceutical and academic settings

#### **DESCRIPTION**

This book is not going to be an exhaustive survey covering all aspects of rational drug design. Instead, it is going to provide critical know-how through real-world examples. Relevant case studies will be presented and analyzed to illustrate the following: how to optimize a lead compound whether one has high or low levels of structural information; how to derive hits from competitors' active compounds or from natural ligands of the targets; how to springboard from competitors' SAR knowledge in lead optimization; how to design a ligand to interfere with protein-protein interactions by correctly examining the PPI interface; how to circumvent IP blockage using data mining; how to construct and fully utilize a knowledge-based molecular descriptor system; how to build a reliable QSAR model by focusing on data quality and proper selection of molecular descriptors and statistical approaches. *A Practical Guide to Rational Drug Design* focuses on computational drug design, with only basic coverage of biology and chemistry issues, such as assay design, target validation and synthetic routes.

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**ISBN:** 978-0-08-100123-3

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 216

#### **AUDIENCE**

Engineering students, Surgeons and Healthcare professionals interested in surgical innovation and technology

## **Bioengineering for Surgery** *The Critical Engineer Surgeon Interface*

**Walid Farhat** Associate Professor, University of Toronto and Paediatric Urologist, The Hospital for Sick Children, Toronto, Canada

**James Drake** Head of Neurosurgery, The Hospital for Sick Children, Toronto, Canada and Professor, University of Toronto, Canada



**Teach students how engineers can fit into their working environment and the materials and design considerations they must apply to bioengineer medical ideas**

#### **KEY FEATURES**

- introduces engineers to basic medical knowledge
- provides surgeons and medical professionals with basic engineering principles that are necessary to meet the surgeons' needs

#### **DESCRIPTION**

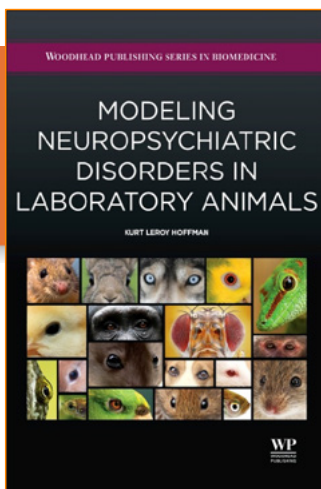
Bioengineering is the application of engineering principles to address challenges in the fields of biology and medicine encompassing the principles of engineering design to the full spectrum of living systems. In surgery, recent advances in minimal invasive surgery and robotics are the culmination of the work that both engineers and surgeons have achieved in the medical field through an exciting and challenging interface. This interface rests on the medical curiosity and engineering solutions that lead eventually to collaboration and development of new ideas and technologies. Most recently, innovation by surgeons has become a fundamental contribution to medical research in the surgical field, and it is through effective communication between surgeons and biomedical engineers and promoting collaborative initiatives that translational research is possible. *Bioengineering for Surgery* explores this interface between surgeons and engineers and how it leads to innovation processes, providing clinical results, fundraising and prestige for the academic institution. This book is designed to teach students how engineers can fit in with their intended environment and what type of materials and design considerations must be taken into account in regards to medical ideas.

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**ISBN:** 978-0-08-100099-1

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 320

#### **AUDIENCE**

This book is aimed mainly at students (including young investigators beginning a career in preclinical research involving animal models). However, it would also be useful for psychiatrists to better understand and interpret preclinical studies involving animal models.

## **Modeling Neuropsychiatric Disorders in Laboratory Animals**

**Kurt Leroy Hoffman** Investigator, Dr. Carlos Beyer Flores Center, Tlaxcala, Mexico and Professor, Postgraduate Program in Biological Sciences, Autonomous University of Tlaxcala, Mexico.



**Focuses on the rationale and theory of using animal behavior, both pathological and normal, to understand the neural underpinnings of neuropsychiatric disorders**

#### **KEY FEATURES**

- Focuses on the rationale and theory of using animal behavior, both pathological and normal, as a tool for understanding the neural underpinnings of neuropsychiatric disorders
- Serves as a guide for students and basic investigators in the fields of behavioral sciences, psychology, neuroscience, psychiatry, and other professionals
- Discusses specific classes of disorders, including anxiety disorders, depressive disorders, obsessive-compulsive and related disorders

#### **DESCRIPTION**

*Modeling Neuropsychiatric Disorders in Laboratory Animals* serves as a guide for students and basic investigators in the fields of behavioral sciences, psychology, neuroscience, psychiatry, and other professionals interested in the use of animal models in preclinical research related to human neuropsychiatric disorders.

The text focuses on the rationale and theory of using animal behavior, both pathological and normal, as a tool for understanding the neural underpinnings of neuropsychiatric disorders. Chapters contain discussions on both classical and modern views on the validation of animal models for neuropsychiatric disorders, also discussing the utility of endophenotypes in modeling neuropsychiatric disease.

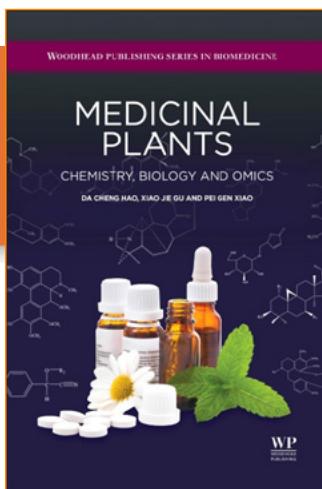
Subsequent chapters deal with four specific classes of disorders, including anxiety disorders, depressive disorders, obsessive-compulsive and related disorders. Final sections discuss the future for the development, validation, and use of animal models in basic and preclinical research.

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**ISBN:** 978-0-08-100085-4

**PUB DATE:** June 2015

**FORMAT:** Hardback

**PAGES:** c. 686

#### **AUDIENCE**

Researchers and Students in Medicinal plants, Phytochemistry, Pharmacognosy, Pharmacology, Medicinal chemistry and Plant systematics.

## **Medicinal Plants**

### ***Chemistry, Biology and Omics***

**Hao Da** Associate Professor and Principle Investigator, School of Environment and Chemical Engineering, Biotechnology Institute, Dalian Jiaotong University, Dalian, P.R China.

**Xiao Jie Gu** Lecturer, School of Environment and Chemical Engineering, Biotechnology Institute, Dalian Jiaotong University, Dalian, P.R China.

**Pei Gen Xiao** Academician at the Chinese Academy of Engineering and Head of the Key Laboratory of Bioactive Substances and Resources Utilization of Chinese Herbal Medicine, Ministry of Education, IMPLAD, CAMS, Beijing, P. R China



**Reviews the Phytochemistry, Chemotaxonomy, Molecular biology and Phylogeny of selected medicinal plant tribes and genera and their relevance to drug efficacy**

#### **KEY FEATURES**

- Reviews best practice and essential developments in medicinal plant chemistry and biology
- Discusses the principles and applications of various techniques used to discover medicinal compounds
- Explores the analysis and classification of novel plant-based medicinal compounds
- Includes case studies on pharmaphylogeny
- Compares and integrates traditional knowledge and current perception of worldwide medicinal plants

#### **DESCRIPTION**

*Medicinal Plants: Chemistry, Biology and Omics* reviews the phytochemistry, chemotaxonomy, molecular biology, and phylogeny of selected medicinal plant tribes and genera, and their relevance to drug efficacy.

Medicinal plants provide a myriad of pharmaceutically active components, which have been commonly used in traditional Chinese medicine and worldwide for thousands of years. Increasing interest in plant-based medicinal resources has led to additional discoveries of many novel compounds, in various angiosperm and gymnosperm species, and investigations on their chemotaxonomy, molecular phylogeny and pharmacology.

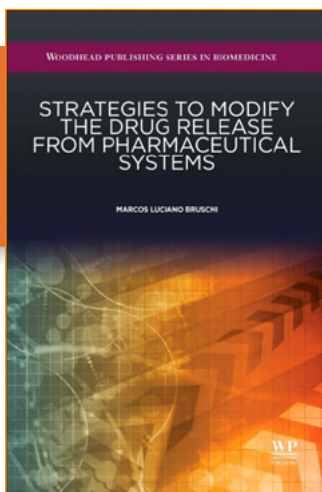
Chapters in this book explore the interrelationship within traditional Chinese medicinal plant groups and between Chinese species and species outside of China. Chapters also discuss the incongruence between chemotaxonomy and molecular phylogeny, concluding with chapters on systems biology and “-omics” technologies (genomics, transcriptomics, proteomics, and metabolomics), and how they will play an increasingly important role in future pharmaceutical research.

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**ISBN:** 978-0-08-100092-2

**PUB DATE:** June 2015

**FORMAT:** Hardback

**PAGES:** c. 200

**AUDIENCE**

Students, Lecturers, Professors and Researchers of Pharmaceutical Sciences, Drug delivery and Technology.

## Strategies to Modify the Drug Release from Pharmaceutical Systems

**Marcos Luciano Bruschi** Professor of Pharmaceutics and Pharmaceutical Technology, Department of Pharmacy, State University of Maringá (UEM), Paraná, Brazil



**Addresses the principles, systems, applications and advances in the field of drug delivery**

**KEY FEATURES**

- Addresses the principles, systems, applications and advances in the field of drug delivery
- Highlights the mathematical and physicochemical principles related to strategies
- Discusses drug release and its possible modifications

**DESCRIPTION**

Since the earliest dosage forms to modern drug delivery systems, came a great development and growth of knowledge with respect to drug delivery. *Strategies to Modify the Drug Release from Pharmaceutical Systems* will address principles, systems, applications and advances in the field. It will be principally a textbook and a reference source of strategies to modify the drug release. Moreover, the characterization, mathematical and physicochemical models, applications and the systems will be discussed.

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WOODHEAD PUBLISHING SERIES IN BIOMEDICINE

DATA MINING FOR  
BIOINFORMATICS APPLICATIONS

ZENGYOU HE



**ISBN:** 978-0-08-100100-4

**PUB DATE:** June 2015

**FORMAT:** Hardback

**PAGES:** c. 95

**AUDIENCE**

Computer scientists who are interested in designing new data mining algorithms and biologists who are trying to solve bioinformatics problems using existing data mining tools.

## Data Mining for Bioinformatics Applications

*He Zengyou* Associate Professor, School of Software, Dalian University of Technology, China



**Valuable information on data mining to solve real bioinformatics problems, from defining the problem and collecting and preprocessing data to modeling and validating**

### KEY FEATURES

- Provides valuable information on the data mining methods have been widely used for solving real bioinformatics problems
- Uses an example-based method to illustrate how to apply data mining techniques to solve real bioinformatics problems
- Contains 45 bioinformatics problems that have been investigated in recent research

### DESCRIPTION

*Data Mining for Bioinformatics Applications* provides valuable information on the data mining methods have been widely used for solving real bioinformatics problems, including problem definition, data collection, data preprocessing, modeling, and validation.

The text uses an example-based method to illustrate how to apply data mining techniques to solve real bioinformatics problems, containing 45 bioinformatics problems that have been investigated in recent research. For each example, the entire data mining process is described, ranging from data preprocessing to modeling and result validation.

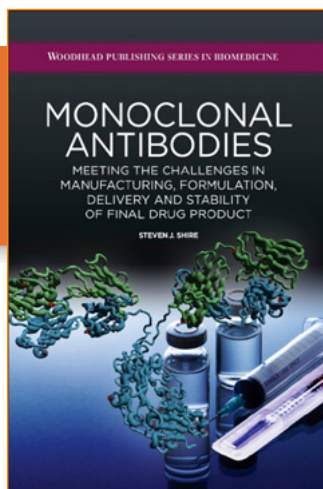
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**ISBN:** 978-0-08-100296-4

**PUB DATE:** April 2015

**FORMAT:** Hardback

**PAGES:** c. 216

**AUDIENCE**

Students in the pharmaceutical sciences as well as industrial pharmaceutical scientists.

## Monoclonal Antibodies

*Meeting the Challenges in Manufacturing, Formulation, Delivery and Stability of Final Drug Product*

**Steven Shire** Adjunct faculty member, University of Southern California School of Pharmacy and University of Connecticut School of Pharmaceutical Sciences, USA



**Discusses the challenges and issues revolving around development of a monoclonal antibody produced by recombinant DNA technology into a therapeutic agent**

### KEY FEATURES

- Discusses the challenges to develop MABs for intravenous (IV) and subcutaneous delivery (SC)
- Presents strategies to meet the challenges in development of MABs for SC and IV administration
- Discusses the use of biophysical analytical tools coupled with MAB engineering to understand what governs MAB properties at high concentration

### DESCRIPTION

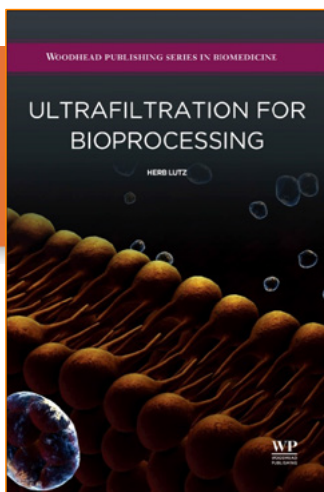
Monoclonal antibodies (MABs) are currently the major class of protein bio therapeutic being developed by biotechnology and pharmaceutical companies. Monoclonal Antibodies discusses the challenges and issues revolving around development of a monoclonal antibody produced by recombinant DNA technology into a therapeutic agent. This book covers downstream processing which includes design of processes to manufacture the formulation, formulation design, fill and finish into closure systems and routes of administration. The characterization of the final drug product is covered where the use of biophysical methods combined with genetic engineering is used to understand the solution properties of the formulation. The latter has become very important since many indications such as arthritis and asthma require the development of formulations for subcutaneous delivery (SC). The development of formulations for IV delivery is also important and comes with a different set of challenges. The challenges and strategies that can overcome these limitations are discussed in this book, starting with an introduction to these issues, followed by chapters detailing strategies to deal with them. Subsequent chapters explore the processing and storage of MABs, development of delivery device technologies and conclude with a chapter on the future of mAbs in therapeutic remedies.

**BIOMEDICAL SCIENCE & MEDICINE**

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**ISBN:** 978-1-907568-46-6

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 229

**AUDIENCE**

All those involved in Biotechnology  
and Biopharmaceuticals

## Ultrafiltration for Bioprocessing

H Lutz Millipore Corporation, USA



Includes many practical applications and case studies in the key process of ultrafiltration (UF)

A Volume in the Woodhead Publishing Series in Biomedicine.

### KEY FEATURES

- Focuses on ultrafiltration for biopharmaceuticals—other books look at general ultrafiltration or general biopharmaceuticals
- A mix of theory and practical applications—other books tend to be more theory-oriented
- Addresses the main issues encountered in development and scale-up through recommendations and case studies

### DESCRIPTION

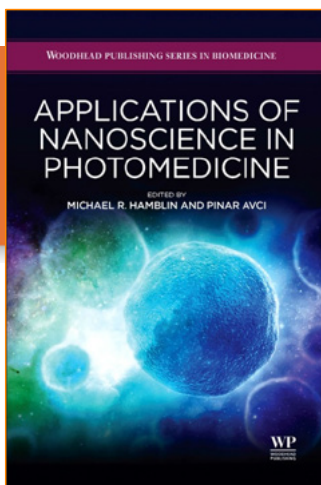
*Ultrafiltration for Bioprocessing* is key reading for all those involved in the biotechnology and biopharmaceutical areas. Written by a leading worker in the area, it includes many practical applications and case studies in the key process of ultrafiltration (UF), which is used in almost every bioprocess.

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**ISBN:** 978-1-907568-67-1

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 200

#### AUDIENCE

Nanotechnology specialists, scientists, engineers, physicians with interests in the areas of nanoscience, chemistry, physics, photomedicine, imaging, drug delivery, and related technologies

## Applications of Nanoscience in Photomedicine

Edited by: **Michael R. Hamblin** Harvard Medical School, Cambridge, MA, USA

**Pinar Avci** Research Fellow, Department of Dermatology, Harvard Medical School, Cambridge, MA, USA



*Applications of Nanoscience in Photomedicine* covers a wide range of nanomaterials including nanoparticles used for drug delivery and other emerging fields such as optofluidics, imaging and SERS diagnostics.

A Volume in the Woodhead Publishing Series in Biomedicine.

#### KEY FEATURES

- Covers a comprehensive up-to-date information on nanoscience
- Focuses on the combination of photomedicine with nanotechnology to enhance the diversity of applications
- Pioneers in the field have written their respective chapters
- Opens a plethora of possibilities for developing future nanomedicine
- Easy to understand and yet intensive coverage chapter by chapter

#### DESCRIPTION

Nanoscience has become one of the key growth areas in recent years. It can be integrated into imaging and therapy to increase the potential for novel applications in the field of photomedicine. In the past commercial applications of nanoscience have been limited to materials science research only, however, in recent years nanoparticles are rapidly being incorporated into industrial and consumer products. This is mainly due to the expansion of biomedical related research and the burgeoning field of nanomedicine. *Applications of Nanoscience in Photomedicine* covers a wide range of nanomaterials including nanoparticles used for drug delivery and other emerging fields such as optofluidics, imaging and SERS diagnostics. Introductory chapters are followed by a section largely concerned with imaging, and finally a section on nanoscience-enabled therapeutics.

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**ISBN:** 978-0-08-100068-7

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 316

#### **AUDIENCE**

Researchers, students and practitioners in Biological Sciences, Plant science, Plant biotechnology, Plant physiology and Genetics, Plant functional genomics, Agriculture, Sustainable growth and economy and Bio-based Biochemicals.

## **Applied Plant Genomics and Biotechnology**

**P Poltronieri** Institute of Sciences of Food Production, National Research Council (ISPA-CNR), Lecce, Italy

**Yiguo Hong** Professor, College of Life and Environmental Sciences, Hangzhou Normal University, Hangzhou, People's Republic of China.



**The book will review and discuss Plant Functional Genomic studies and the future developments in the field, exploring the new technologies supporting the genetic improvement of plants and the production of plant varieties more resistant to biotic and abiotic stresses.**

#### **KEY FEATURES**

- provides an overview on the ongoing projects and activities in the field of applied biotechnology
- includes examples of different crops and applications to be exploited
- reviews and discusses Plant Functional Genomic studies and the future developments in the field
- explores the new technologies supporting the genetic improvement of plants

#### **DESCRIPTION**

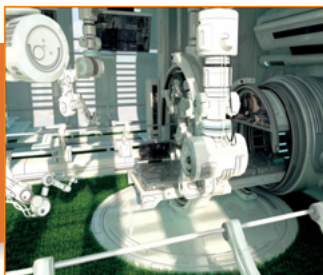
Applied plant genomics and biotechnology reviews the recent advancements in the post-genomic era, discussing how different varieties respond to abiotic and biotic stresses, investigating epigenetic modifications and epigenetic memory through analysis of DNA methylation states, applicative uses of RNA silencing and RNA interference in plant physiology and in experimental transgenics, and plants modified to produce high-value pharmaceutical proteins. The book provides an overview of research advances in application of RNA silencing and RNA interference, through Virus-based transient gene expression systems, Virus induced gene complementation (VIGC), Virus induced gene silencing (Sir VIGS, Mr VIGS) Virus-based microRNA silencing (VbMS) and Virus-based RNA mobility assays (VRMA); RNA based vaccines and expression of virus proteins or RNA, and virus-like particles in plants, the potential of virus vaccines and therapeutics, and exploring plants as factories for useful products and pharmaceuticals are topics wholly deepened. The book reviews and discuss Plant Functional Genomic studies discussing the technologies supporting the genetic improvement of plants and the production of plant varieties more resistant to biotic and abiotic stresses. Several important crops are analysed providing a glimpse on the most up-to-date methods and topics of investigation. The book presents a review on current state of GMO, the cisgenesis-derived plants and novel plant products devoid of transgene elements, discuss their regulation and the production of desired traits such as resistance to viruses and disease also in fruit trees and wood trees with long vegetative periods. Several chapters cover aspects of plant physiology related to plant improvement: cytokinin metabolism and hormone signaling pathways are discussed in barley; PARP-domain proteins involved in Stress-Induced Morphogenetic Response, regulation of NAD signaling and ROS dependent synthesis of anthocyanins. Apple allergen isoforms and the various content in different varieties are discussed and approaches to reduce their presence. *Euphorbiaceae*, castor bean, cassava and *Jathropa* are discussed at genomic structure, their diseases and viruses, and methods of transformation. Rice genomics and agricultural traits are discussed, and biotechnology for engineering and improve rice varieties. Mango topics are presented with an overview of molecular methods for variety differentiation, and aspects of fruit improvement by traditional and biotechnology methods. Oilseed rape is presented, discussing the genetic diversity, quality traits, genetic maps, genomic selection and comparative genomics for improvement of varieties. Tomato studies are presented, with an overview on the knowledge of the regulatory networks involved in flowering, methods applied to study the tomato genome-wide DNA methylation, its regulation by small RNAs, microRNA-dependent control of transcription factors expression, the development and ripening processes in tomato, genomic studies and fruit modelling to establish fleshy fruit traits of interest; the gene reprogramming during fruit ripening, and the ethylene dependent and independent DNA methylation changes.

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## Big Data and Ethics

### *Medical Datasphere*

Jérôme Béranger Senior Consultant and Associate Researcher, Keosys, Saint Herblain, France



## Big Data and Ethics

Jérôme Béranger

*Medical Datasphere*



ISBN: 978-1-78548-025-6

PUB DATE: June 2016

FORMAT: Hardback

PAGES: c. 180

### AUDIENCE

Advanced undergraduate and graduate students in courses and industry focusing on biotechnology, bioinformatics, medical care, biology and public health; Managers and employees in biotechnology and pharmaceutical companies

Provides the tools for ethical reflection on the development, implementation and use of healthy "mega data"

### KEY FEATURES

- Initially defines Big Data applications in health
- Presents the ethical value of the medical datasphere via the description of a model of an ethical analysis of Big Data
- Presents the recommendations and steps necessary for successful management and governance of personal health data, and determines what conditions are essential for the development of the study of Big Data

### DESCRIPTION

The exponential digitization of medical data has led to a transformation of the practice of medicine. This development in particular raises new complex issues surrounding health ICT. The proper use of these communication tools - telemedicine, e-health, m-health, medical big data - should improve the quality of monitoring and management of patients for a system of information with a human face.

Faced with these challenges, the health information systems and ethical analyzes from an ethical angle the doctor-patient relationship, the sharing, transmission and storage of medical information, setting references for ethics for the digitization of medical information. Drawing on good practice recommendations closely related to values, this model develops tools for reflection and presents the keys to understanding the decision-making issues that take into account both technological constraints and the complex nature of human reality in medicine.

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## Dynemicin A, Uncialamycin and Analogues

**Daniel Best** Postdoctoral Researcher, Université de Rennes, France

**Mickael Jean** Lecturer, University of Rennes, France

**Pierre Van De Weghe** Professor of Organic Chemistry, Faculty of Pharmacy and Vice President of International Relations, University of Rennes, France



**Coverage of a complete field of the drugs' organic chemistry, at the interface with biological science**

### DESCRIPTION

Dynemicin, Uncialamycin, anthraquinonic derivatives, are natural compounds with potent antibacterial and anticancer activities due to their unique enediyne moiety. The purpose of this book is to describe the isolation of Dynemicin and Uncialamycin, to provide a brief overview of their biological activities (and potential development as drugs) and to present the various synthetic route to prepare these compounds as well as analogues.

One of the main strengths of this topic is the coverage of a complete field of the organic chemistry at the interface with biological science. This ranges from the isolation to the synthesis of natural products (and analogues) possessing an enediyne and anthraquinone moieties via their biological activities.

**ISBN:** 978-1-78548-150-5

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 150

### AUDIENCE

Undergraduate and graduate students in chemistry studying medicinal chemistry or pharmaceutical chemistry; research chemists and biochemists working in pharmaceutical and biotechnology industries

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**Biostatistics and Computer-based  
Analysis of Health Data  
Using the R Software**

Mounir Mesbah and Christophe Lalanne



**ISBN:** 978-1-78548-088-1

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 196

**AUDIENCE**

Statistical/medical students, as well as statisticians who would like to switch from another stat software to R

## Biostatistics and Computer-Based Analysis of Health Data Using the R Software

**Lalanne Christophe** University Denis Diderot, Paris 7 and INSERM, Paris, France

**Mounir Mesbah** Professeur des Universités en Statistique, Université Pierre et Marie Curie, Paris 6, France



**Apply basic commands and data tables to your health data with the R software**

### KEY FEATURES

This book features:

- Useful commands for describing a data table composed made up of quantitative and qualitative variables
- Measures of association encountered in epidemiological studies: odds ratio, relative risk, prevalence
- Analysis of censored data, the key main tests associated with the construction of a survival curve (log-rank test or Wilcoxon) and the Cox regression model

### DESCRIPTION

Many of the actions performed by statistical software come back to handling manipulating or even transforming digital data, which actually represent statistical data literally. It is therefore of primary importance to understand how statistical data are displayed and how they can be exploited by software such as R.

The authors explore basic and variable commands, sample comparisons, analysis of variance, epidemiological studies and censored data. With proposed applications and examples of commands following each chapter, this book allows you to apply advanced statistical concepts to your own data and software.

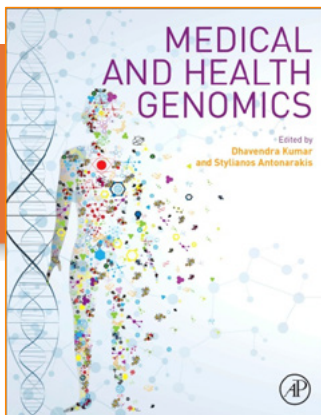
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**ISBN:** 978-0-12-420196-5

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 384

**AUDIENCE**

Healthcare professionals and researchers interested in health systems issues, including public health genetics and epidemiology, healthcare administrators, regulators and related educators

## Medical and Health Genomics

Edited by: **Dhavendra Kumar** University Hospital of Wales, Cardiff University, Cardiff, UK

**Stylianos Antonarakis** University of Geneva Medical School, Geneva, Switzerland



**This timely book examines the impact of clinical genomics across an array of public and community health issues, and within a variety of global healthcare systems offering concise, evidence-based technical and practical information on applied and translational aspects of genome sciences and technologies related to nonclinical medicine and public health**

### KEY FEATURES

- Provides extensive coverage of the emergent field of health genomics and its huge relevance to healthcare management
- Presents user-friendly language accompanied by explanatory diagrams, figures, and many references for further study
- Covers the applied, but non-clinical, sciences across disease discovery, genetic analysis, genetic screening, and prevention and management
- Details the impact of clinical genomics across a diverse array of public and community health issues, and within a variety of global healthcare systems

### DESCRIPTION

*Medical and Health Genomics* provides concise and evidence-based technical and practical information on the applied and translational aspects of genome sciences and the technologies related to non-clinical medicine and public health. Coverage is based on evolving paradigms of genomic medicine—in particular, the relation to public and population health genomics now being rapidly incorporated in health management and administration, with further implications for clinical population and disease management.

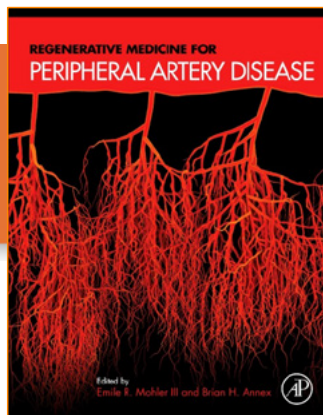
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## Regenerative Medicine for Peripheral Artery Disease

Edited by: **Emile Mohler** Director, Vascular Medicine, University of Pennsylvania Health System, Professor of Medicine, Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA, USA  
**Brian Annex** Chief, Division of Cardiovascular Medicine, University of Virginia School of Medicine, Charlottesville, VA, USA



**This comprehensive and up-to-date compendium features the latest clinical data available regarding the use of regenerative medicine in the treatment of peripheral artery disease. Including a general overview of regenerative medicine and covering such important vascular topics as intermittent claudication and critical limb ischemia**

**ISBN:** 978-0-12-801344-1

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 280

### AUDIENCE

The audience includes researchers in regenerative medicine, cardiovascular specialists, vascular medicine specialists, vascular surgeons, interventional radiologists and pharmaceutical researchers.

### KEY FEATURES

- Compiles and explains the rationale and history of different regenerative treatment concepts for peripheral artery disease in one reference
- Presents pertinent animal studies and human clinical trials in the area of regenerative medicine for peripheral arterial disease, addressing both safety and efficacy of the clinical trials
- Provides full-color images that demonstrate covered mechanisms
- Includes access to a full-color website for further study

### DESCRIPTION

*Regenerative Medicine for Peripheral Artery Disease* is a comprehensive and up-to-date resource on the use of regenerative medicine for the treatment of peripheral arterial disease. This reference includes a general overview of regenerative medicine and covers important vascular topics, including intermittent claudication and critical limb ischemia, with important mechanisms clearly presented in full color images throughout the book. This important reference includes clear and concise information on both human clinical trials, as well as important and pertinent animal studies, and is a must-have reference for researchers and practitioners of peripheral artery disease.

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## Diagnostic Molecular Pathology

### A Guide to Applied Molecular Testing

Edited by: **William B. Coleman** Professor, Department of Pathology and Laboratory Medicine, UNC Lineberger Comprehensive Cancer Center, University of North Carolina School of Medicine, Chapel Hill, NC, USA

**Gregory J. Tsongalis** Professor of Pathology, Director, Molecular Pathology, and Co-Director Translational Research Program, Department of Pathology, Dartmouth Hitchcock Medical Center, Lebanon, NH, USA



**Organized around disease types and their mechanisms and featuring a website with lab test videos and decisionmaking exercises, this comprehensive guide examines the use of molecular diagnostic tests in disease detection, diagnosis, and classification**

#### KEY FEATURES

- Focuses on the menu of molecular diagnostic tests available in modern molecular pathology or clinical laboratories that can be applied to disease detection, diagnosis, and classification in the clinical workup of a patient
- Explains how molecular tests are utilized to guide the treatment of patients in personalized medicine (guided therapies) and for prognostication of disease
- Features an ancillary website with videos of laboratory tests being performed as well as self-testing exercises where decision trees can be employed to simulate actual clinical decisions
- Highlights new technologies and approaches of applied molecular pathology and how discovery-based research will yield new and useful biomarkers and tests

#### DESCRIPTION

*Diagnostic Molecular Pathology: A Guide to Applied Molecular Testing* is organized around disease types (genetic disease, infectious disease, neoplastic disease, among others). In each section, the authors provide background on disease mechanisms and describe how laboratory testing is built on knowledge of these mechanisms. Sections are dedicated to general methodologies employed in testing (to convey the concepts reflected in the methods), and specific description of how these methods can be applied and are applied to specific diseases are described.

The book does not present molecular methods in isolation, but considers how other evidence (symptoms, radiology or other imaging, or other clinical tests) is used to guide the selection of molecular tests or how these other data are used in conjunction with molecular tests to make diagnoses (or otherwise contribute to clinical workup). In addition, final chapters look to the future (new technologies, new approaches) of applied molecular pathology and how discovery-based research will yield new and useful biomarkers and tests.

*Diagnostic Molecular Pathology* contains exercises to test readers on their understanding of how molecular diagnostic tests are utilized and the value of the information that can be obtained in the context of the patient workup. Some of these exercises can be found at the end of each chapter in the form of questions and answers. Readers are also directed to an ancillary website that contains supplementary materials in the form of exercises where decision trees can be employed to simulate actual clinical decisions (with addition of time and cost of diagnosis).

**ISBN:** 978-0-12-800886-7

**PUB DATE:** June 2016

**FORMAT:** Hardback

**PAGES:** c. 450

#### AUDIENCE

Medical fellows in pathology and laboratory medicine, clinical pathologists, clinical laboratory scientists, and clinicians across internal medicine subspecialties, as well as biomedical science graduate students

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**ISBN:** 978-0-12-802025-8

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 372

**AUDIENCE**

Fellows and residents of pathology and internal medicine, practicing clinicians in pathology, family medicine and internal medicine, as well as laboratory professionals

## Clinical Challenges in Therapeutic Drug Monitoring *Special Populations, Physiological Conditions and Pharmacogenomics*

Edited by: **William Clarke** Associate Professor of Pathology, Johns Hopkins School of Medicine, Johns Hopkins University, Baltimore, MD, USA  
**Amitava Dasgupta** Professor, Pathology and Laboratory Medicine, University of Texas Health Science Center, Houston, TX, USA



**This concise and highly accessible guide surveys critical issues in therapeutic drug monitoring for non-toxicologists who want to gain greater insight into the unique requirements of special populations and learn how to avoid drug toxicity within a narrow therapeutic window**

**KEY FEATURES**

- Offers busy clinicians, pathologists, and trainees a concise resource on the key aspects and critical issues in therapeutic drug monitoring
- Focuses on patient populations such as infants and children, pregnant women, elderly patients, and obese patients, who have special requirements in therapeutic drug monitoring
- Explores special topics in therapeutic drug monitoring including free drug monitoring and common immunoassay interference
- Explains how individual dosage adjustments can prevent drug toxicity for certain drugs within a narrow therapeutic window

**DESCRIPTION**

*Clinical Challenges in Therapeutic Drug Monitoring: Special Populations, Physiological Conditions and Pharmacogenomics* focuses on critical issues in therapeutic drug monitoring including special requirements of therapeutic drug monitoring important to special populations (infants and children, pregnant women, elderly patients, and obese patients). The book also covers issues of free drug monitoring and common interferences in using immunoassays for therapeutic drug monitoring.

This book is essential reading for any clinician, fellow, or trainee who wants to gain greater insight into the process of therapeutic drug monitoring for individual dosage adjustment and avoiding drug toxicity for certain drugs within a narrow therapeutic window. The book is written specifically for busy clinicians, fellows, and trainees who order therapeutic drug monitoring and need to get more familiar with testing methodologies, issues of interferences, and interpretation of results in certain patient populations.

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**ISBN:** 978-0-12-802209-2

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 440

**AUDIENCE**

clinical researchers, cancer researchers, and clinicians interested in evidence on key aspects of breast screening; specialists in any breast discipline (oncology, breast surgery, radiology, radiation therapists, pathologists, etc.), public health professionals with interest in breast screening or cancer screening, researchers in health services & public health studies, breast screening policy makers and service providers.

## Breast Cancer Screening

### *Making Sense of Complex and Evolving Evidence*

**Nehmat Houssami** Associate Professor, Principal Research Fellow Public Health, School of Public Health, Sydney School of Public Health, University of Sydney, Sydney, Australia

**Diana Miglioretti** Dean's Professor in Biostatistics, Department of Public Health Sciences, UC Davis School of Medicine, University of California, Davis, CA, USA



**This insightful book provides a balanced perspective on the increasingly controversial topic of breast cancer screening, with a focus on current and emerging scientific evidence as well as look at such future breast cancer screening practices as tailored screening and shared decision-making plus variability in screening practice and outcomes around the world**

#### KEY FEATURES

- Explains complex and evolving evidence on breast screening with a balanced approach
- Provides balanced information and up-to-date evidence in an increasingly complex area
- Addresses emerging topical issues such as screening trials of digital breast tomosynthesis, tailored breast screening, and shared decision-making in breast screening
- Assists academics and researchers in identifying areas needing further research

#### DESCRIPTION

*Breast Cancer Screening: Making Sense of Complex and Evolving Evidence* covers broad aspects of breast cancer screening specifically focusing on current evidence, emerging evidence, and issues that will be critical for future breast screening practice such as tailored screening and shared decision-making in breast screening. The scope of the book is relevant to a global audience.

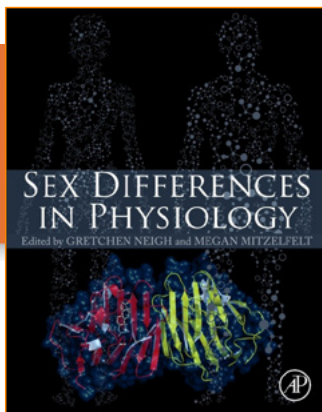
This book provides balanced perspectives on this increasingly controversial topic, using scientific evidence to explain the evolution of knowledge relating to breast cancer screening. *Breast Cancer Screening* covers the key points related to this debate including the context of increasingly complex and conflicting evidence, divergent opinions on the benefits and harms of breast screening, and variability in screening practice and outcomes across settings around the world.

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# SEX DIFFERENCES IN PHYSIOLOGY

Edited by GRETCHEN NEIGH and MEGAN MITZELFELT

## Sex Differences in Physiology

Edited by: **Gretchen Neigh** Assistant Professor, Emory University School of Medicine, Atlanta, GA, USA

**Megan Mitzelfelt** Department of Physiology, Emory University School of Medicine, Atlanta, GA, USA



**This comprehensive book reviews the published research and methodologies concerning sex differences in normal physiology and disease and examines basic science research into sex differences in all physiological fields, including cardiovascular, respiratory, renal, gastrointestinal, and musculoskeletal physiology**

### KEY FEATURES

- Provides a sweeping, organ-by-organ review of currently observed sex differences in animal models and human disease
- Explains how sex differences influence physiology and disease
- Provides the critical knowledge on sex differences for better understanding of prevention and treatment of diseases

### DESCRIPTION

*Sex Differences in Physiology* is an all-encompassing reference that details basic science research into sex differences in all physiological fields. It includes scientific discoveries concerning sex differences in cardiovascular, respiratory, renal, gastrointestinal, and musculoskeletal physiology. In addition, coverage of the development, endocrinology, neurophysiology, immunity, and metabolism is included, making this important reference a resource that will meet the needs of investigators interested in incorporating sex differences into their research programs, while also providing clinicians with the basis for providing the best sex-based medical treatment options available.

**ISBN:** 978-0-12-802388-4

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 368

### AUDIENCE

Researchers and Clinicians in most all physiological fields including but not limited to immunology, cardiology, nephrology, endocrinology, pulmonology, and neurology.

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## CLINICAL RESEARCH COMPUTING

A PRACTITIONER'S HANDBOOK

Prakash Nadkarni



**ISBN:** 978-0-12-803130-8

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 200

### AUDIENCE

practitioners and clinical researchers involved in health IT systems; graduate students studying medical and health informatics; students in health IT programs.

## Clinical Research Computing

### *A Practitioner's Handbook*

**Prakash Nadkarni** Research Professor, University of Iowa School of Medicine, Iowa City, IA, USA



Using a case study approach to prepare readers for the challenges of providing informatics and computing support for clinical research, this practical handbook covers the full range of relevant perspectives—technological, scientific, organizational, and managerial—for fully exploiting the opportunities created by clinical research computing

### KEY FEATURES

- Offers case studies, based on real-life examples where possible, to engage the readers with more complex examples
- Provides studies backed by technical details, e.g., schema diagrams, code snippets or algorithms illustrating particular techniques, to give the readers confidence to employ the techniques described in their own settings
- Offers didactic content organization and an increasing complexity through the chapters

### DESCRIPTION

*Clinical Research Computing: A Practitioner's Handbook* deals with the nuts-and-bolts of providing informatics and computing support for clinical research. The subjects that the practitioner must be aware of are not only technological and scientific, but also organizational and managerial. Therefore, the author offers case studies based on real life experiences in order to prepare the readers for the challenges they may face during their experiences either supporting clinical research or supporting electronic record systems. Clinical research computing is the application of computational methods to the broad field of clinical research. With the advent of modern digital computing, and the powerful data collection, storage, and analysis that is possible with it, it becomes more relevant to understand the technical details in order to fully seize its opportunities.

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# INFORMED AND HEALTHY

THEORETICAL AND APPLIED PERSPECTIVES ON  
THE VALUE OF INFORMATION TO HEALTH CARE



MARIA G. N. MUSOKE



**ISBN:** 978-0-12-804290-8

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 150

## AUDIENCE

graduate students on  
health/medical informatics and  
information systems; health  
professionals, planners and policy  
makers

## Informed and Healthy

### *Theoretical and Applied Perspectives on the Value of Information to Health Care*

**Maria Musoke** Professor of Information Science, School of Library and  
Information Science, Makerere University, Uganda



**This enlightening book uses a case study approach to examine the value attributed to information by users and its effect on health care, as well as a new model of information behavior in which the value of information drives various information activities**

## KEY FEATURES

- Provides a new model of information behaviour that emerges inductively from qualitative data
- Focuses on value of information rather than information needs
- Explains in detail the methodological approach used to value attribution
- Serves as a valuable resource for health professionals, planners, and policy makers, as well as researchers interested in health information systems and their applicability in different environments

## DESCRIPTION

*Informed and Healthy: Theoretical and Applied Perspectives on the Value of Information to Health Care* focuses on two major issues: the value attributed to information by users and its effect on health care; and, a new model of information behavior in which the value of information drives various information activities (unlike many information models which tend to give prominence to information needs). The inductive development of the model is explained, with associated implications for theory and transferability or applicability elsewhere.

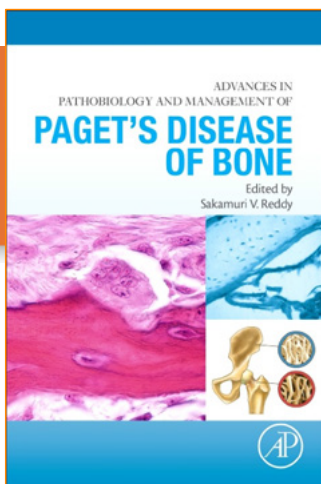
The book uses a case study of the health information system in Uganda and expands the analysis by comparing it to other systems utilized by different countries in diverse levels of development. Topics such as access and use of information; value attribution and effect on health outcomes; and modelling information behavior and its implications on health informatics are discussed in detail. This book is a valuable resource for health professionals, planners, and policy makers, as well as researchers interested in health information systems and their applicability in different environments.

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**ISBN:** 978-0-12-805083-5

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 190

#### AUDIENCE

Biomedical researchers, research clinicians, graduate students, and fellows in the fields of endocrinology, bone biology, osteology, and rheumatology

## Advances in Pathobiology and Management of Paget's Disease of Bone

Edited by: **Sakamuri V. Reddy** Department of Pediatrics, College of Medicine, Medical University of South Carolina, Charleston, SC, USA



**This book provides, in one convenient volume, the essential collection of up-to-date knowledge about the pathophysiology, genetics, and treatment of Paget's disease**

#### KEY FEATURES

- Discusses the current research of the nature of Paget's disease and its response to the latest treatments which are seminal in the management of this disease
- Helps users quickly assess the very latest details on the diverse scientific and clinical aspects of Paget's disease, as opposed to searching through multiple journal articles in the literature
- Presents work from featured leaders in Paget's disease around the globe
- Serves as a useful volume for basic scientists, graduate students, and practicing clinicians in understanding the pathobiology, etiology, and treatment of this disease

#### DESCRIPTION

*Advances in Pathobiology and Management of Paget's Disease of Bone* presents an essential collection of up-to-date knowledge about the pathophysiology, genetics, and treatment of Paget's disease. It covers the comprehensive information related to clinical perspectives, epidemiology, genetics, environmental factors such as viral etiology, molecular abnormalities, complications such as osteosarcoma, and current and future treatment for Paget's disease. This book serves as a useful volume for basic scientists, graduate students, and practicing clinicians in understanding the pathobiology, etiology, and treatment of this disease.

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**ISBN:** 978-0-12-805361-4

**PUB DATE:** June 2016

**FORMAT:** Paperback

**PAGES:** c. 92

**AUDIENCE**

Medical students, Bachelor of Science students, PhD students in tissue engineering and stem cells, surgeons, plastic surgeons, physicians, pharmaceutical companies, public with an interest in applications of TE to cure diseases.

## Tissue Engineering Made Easy

**Farhana Akter** University of Cambridge University College London Royal Free Hospital/Great Ormond Street Hospital, Plastic Surgery/Orthopaedics



**This highly accessible book provides a concise and clear overview of the basics of tissue engineering, covering background and basic principles, clinical applications for a variety of organs, and future directions for the field**

### KEY FEATURES

- Offers readers a truly introductory way to understand the concepts, challenges and the new trends in reconstructive medicine
- Features accessible language for students beginning their research careers, private practice physician collaborators, and residents just beginning their research rotation
- Addresses the specifics for a variety of organs/systems – nerves, skin, bone, cardiovascular, respiratory, ophthalmic
- Provides examples from clinical and everyday situations

### DESCRIPTION

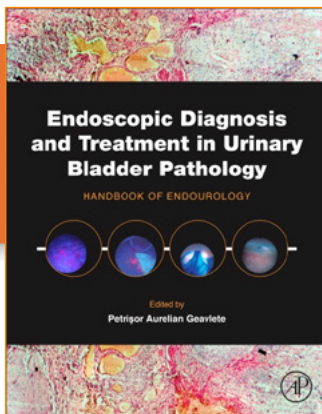
*Tissue Engineering Made Easy* provides concise, easy to understand, up-to-date information about the most important topics in tissue engineering. These include background and basic principles, clinical applications for a variety of organs (skin, nerves, eye, heart, lungs and bones), and the future of the field. The descriptions and explanations of each topic are such that those who have not had any exposure to the principles and practice of tissue engineering will be able to understand them, and the volume will serve as a source for self-teaching to get readers to a point where they can effectively engage with active researchers.

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**ISBN:** 978-0-12-802439-3

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 434

**AUDIENCE**

Fellows, residents, and practicing clinicians in urology, surgery, and internal medicine

## Endoscopic Diagnosis and Treatment in Urinary Bladder Pathology

### *Handbook of Endourology*

Edited by: *Petrisor Aurelian Geavlete* Faculty of Medicine, Department of Urology, University of Medicine and Pharmacy "Carol Davila" Bucharest, Bucharest, Romania



**This comprehensive review contains five focused, review-oriented volumes that are ideal for students and clinicians interested in the latest information on both endourological diagnosis and treatment of prostate, urethral, urinary bladder, upper urinary tract, and renal pathology, with chapters covering techniques, results, and the analysis of the most modern technologies**

#### KEY FEATURES

- Offers review content for urologists in training and "refresher" content for experts in endourology
- Explores new surgical techniques and technology through review-level content and extensive images of pathologies
- Includes over 500 images per volume; images taken from more than 4000 endourologic procedures performed annually at the editor's hospital
- Contains easily accessed volumes that can be accessed through eBook format

#### DESCRIPTION

*Endoscopic Diagnosis and Treatment in Urinary Bladder Pathology: Handbook of Endourology* contains five focused, review-oriented volumes that are ideal for students and clinicians looking for a comprehensive review rather than a whole course. Topics covered review both the endourological diagnosis and treatment of prostate, urethral, urinary bladder, upper urinary tract, and renal pathology. All chapters describe the most recent techniques, review the latest results, and analyze the most modern technologies.

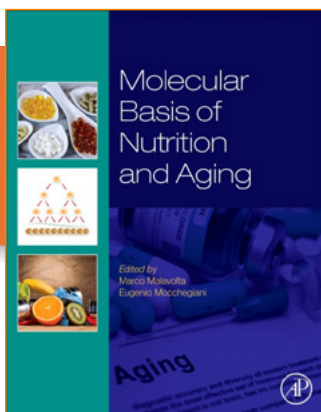
In the past ten years, the field of endourology has expanded beyond the urinary tract to include all urologic minimally invasive surgical procedures. Recent advancements in robotic and laparoscopic bladder surgery make this one of the fastest moving fields in medicine. As current textbooks are too time-consuming for busy urologists or trainees who also need to learn other areas of urology, this collection provides quick references and over 4000 images that are appropriate for fellows and those teaching in the field.

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**ISBN:** 978-0-12-801816-3

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 768

**AUDIENCE**

Researchers in aging, nutrition, diet, metabolism, gerontology, and endocrinology; graduate students in nutrition and public health

## Molecular Basis of Nutrition and Aging A Volume in the Molecular Nutrition Series

Edited by: **Marco Malavolta** Biogerontologist, INRCA (Italian National Research Centres on Aging), Advanced Technology Center for Aging Research, Scientific and Technological Pole, Ancona, Italy

**Eugenio Mocchegiani** Director Biogerontologist, INRCA (Italian National Research Centres on Aging), Nutrition and Ageing Center, Scientific and Technological Pole, Ancona, Italy



**This definitive source synthesizes the latest research on the underlying nutritional issues associated with aging, including the important molecular, cellular, and systemic consequences of diet, nutrition, and health, also exploring the nutritional factors involved in aging, from the biomolecular level to individual health, including the effects of specific dietary compounds and interventions**

### KEY FEATURES

- Offers updated information and a perspectives on important future developments to different professionals involved in the basic and clinical research on all major nutritional aspects of aging
- Explores how nutritional factors are involved in the pathogenesis of aging across body systems
- Investigates the molecular and genetic basis of aging and cellular senescence through the lens of the rapidly evolving field of molecular nutrition

### DESCRIPTION

*Molecular Basis of Nutrition and Aging: A Volume in the Molecular Nutrition Series* focuses on the nutritional issues associated with aging and the important metabolic consequences of diet, nutrition, and health. The book is subdivided into four parts that reflect the impact of nutrition from a biomolecular level to individual health.

In Part One, chapters explore the general aspects of aging, aging phenotypes, and relevant aspects of nutrition related to the elderly and healthy aging. Part Two includes molecular and cellular targets of nutrition in aging, with chapters exploring lipid peroxidation, inflammaging, anabolic and catabolic signaling, epigenetics, DNA damage and repair, redox homeostasis, and insulin sensitivity, among others.

Part Three looks at system-level and organ targets of nutrition in aging, including a variety of tissues, systems, and diseases, such as immune function, the cardiovascular system, the brain and dementia, muscle, bone, lung, and many others. Finally, Part Four focuses on the health effects of specific dietary compounds and dietary interventions in aging, including vitamin D, retinol, curcumin, folate, iron, potassium, calcium, magnesium, zinc, copper, selenium, iodine, vitamin B, fish oil, vitamin E, resveratrol, polyphenols, vegetables, and fruit, as well as the current nutritional recommendations.

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# Imaging in Dermatology

Edited by  
Michael R. Hamblin  
Pinar Avci  
Gaurav K. Gupta



**ISBN:** 978-0-12-802838-4

**PUB DATE:** May 2016

**FORMAT:** Paperback

**PAGES:** c. 320

## AUDIENCE

dermatologists and other physicians; researchers in the fields of dermatology, radiology, drug delivery and pharmaceutical science, molecular biology, cancer diagnostics and treatment, and biotechnology.

## Imaging in Dermatology

Edited by: **Michael R. Hamblin** Harvard Medical School, Cambridge, MA, USA

**Pinar Avci** Research Fellow, Department of Dermatology, Harvard Medical School, Cambridge, MA, USA

**Gaurav K Gupta** Resident, Department of Pathology, Tufts University Medical Center, Boston, MA, USA



**This comprehensive book provides essential information for the use of technologies in analyzing, monitoring, diagnosing, and treating skin disorders, including coverage of a large number of topics in dermatological imaging, the use of lasers in dermatology studies, and the implications of using these technologies in research**

## KEY FEATURES

- Outlines the fundamentals of imaging and lasers for dermatology in clinical and research settings
- Provides knowledge of current and future applications of dermatological imaging and lasers
- Coherently structured book written by the experts working in the fields covered

## DESCRIPTION

*Imaging in Dermatology* covers a large number of topics in dermatological imaging, the use of lasers in dermatology studies, and the implications of using these technologies in research. Written by the experts working in these exciting fields, the book explicitly addresses not only current applications of nanotechnology, but also discusses future trends of these ever-growing and rapidly changing fields, providing clinicians and researchers with a clear understanding of the advantages and challenges of laser and imaging technologies in skin medicine today, along with the cellular and molecular effects of these technologies.

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# Nanoscience in Dermatology

Edited by  
Michael R. Hamblin  
Pinar Avci  
Tari Prow



**ISBN:** 978-0-12-802926-8

**PUB DATE:** May 2016

**FORMAT:** Paperback

**PAGES:** c. 384

## AUDIENCE

Researchers and PhD students in the fields of biomedicine, dermatology, nanotechnology/nanomedicine, medical/bio-engineering, biotechnology, pharmaceutical science, molecular biology, cancer treatment. Dermatologists and other physicians.

## Nanoscience in Dermatology

Edited by: **Michael R. Hamblin** Harvard Medical School, Cambridge, MA, USA

**Pinar Avci** Research Fellow, Department of Dermatology, Harvard Medical School, Cambridge, MA, USA

**Tari Prow** University of Queensland, Princess Alexandra Hospital, Woolloongabba, Queensland, Australia



**As a comprehensive guide to nanoscience and its applications in dermatology, this book provides essential information for the development and use of nanotechnologies in applications for the analysis, monitoring, diagnosis, and treatment of skin disorders, including the improvement of early detection, the treatment of skin diseases, and the design and optimization of cosmetics.**

## KEY FEATURES

- Provides knowledge of current and future applications of nanoscience and nanotechnology in dermatology
- Outlines the fundamentals, methods, toxicity aspects, and other relevant aspects for nanotechnology based applications in dermatology
- Coherently structured book written by the experts working in the fields covered

## DESCRIPTION

*Nanoscience in Dermatology* covers one of the two fastest growing areas within dermatological science, nanoscience and nanotechnology in dermatology. Recently, great progress has been made in the research and development of nanotechnologies and nanomaterials related to various applications in medicine and, in general, the life sciences. There is increasing enthusiasm for nanotechnology applications in dermatology (drug delivery, diagnostics, therapeutics, imaging, sensors, etc.) for understanding skin biology, improving early detection and treatment of skin diseases and in the design and optimization of cosmetics.

Light sensitive nanoparticles have recently been explored, opening a new era for the combined applications of light with nanotechnology, also called photonanodermatology. However, concerns have been raised regarding the adverse effects of intentional and unintentional nanoparticle exposure and their toxicity.

Written by experts working in these exciting fields, this book extensively covers nanotechnology applications, together with the fundamentals and toxicity aspects. It not only addresses current applications of nanotechnology, but also discusses future trends of these ever-growing and rapidly changing fields, providing scientists and dermatologists with a clear understanding of the advantages and challenges of nanotechnology in skin medicine today.

The book will be complementary to a second book proposed by the same Editors, *Imaging in Dermatology*, which covers two other fast growing areas in dermatological science, imaging technologies and lasers in dermatology.

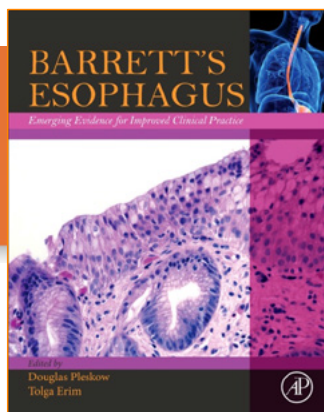
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**ISBN:** 978-0-12-802511-6

**PUB DATE:** April 2016

**FORMAT:** Paperback

**PAGES:** c. 312

**AUDIENCE**

Gastroenterology Researchers and  
Gastroenterologists.

## Barrett's Esophagus

### *Emerging Evidence for Improved Clinical Practice*

**Douglas Pleskow** Director, Colon Cancer Center; Co-Director, GI Endoscopy, Beth Israel Deaconess Medical Center Harvard Medical Faculty Physicians; Associate Clinical Professor, Medicine, Harvard Medical School, USA; **Tolga Erim** Gastroenterology and Hepatology, Cleveland Clinic, Weston, FL, USA



**This reference offers researchers, clinicians, and scholars a comprehensive look at the latest research, treatment, and new imaging modalities of Barrett's Esophagus, including valuable insights from top investigators and clinical scenarios to highlight the directions research is heading**

#### KEY FEATURES

- Provides a perspective into the research behind Barrett's Esophagus
- Emphasizes the emerging technologies in surveillance and treatment of Barrett's
- Features clinical scenarios to highlight the directions in which research is, and should be, heading
- Includes coverage of current guidelines and discussions on where these guidelines fall short

#### DESCRIPTION

*Barrett's Esophagus: Emerging Evidence for Improved Clinical Practice* is a comprehensive reference on the treatment and new imaging modalities of Barrett's Esophagus for researchers, clinicians, and scholars. Each chapter is composed from the perspective of investigators who summarize the data as well as the reasoning behind why those studies were conceived.

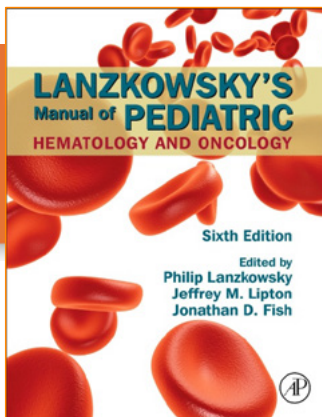
In addition, the future directions of research are discussed within each chapter, providing insights from the investigators. Research questions are described, and cutting-edge applications are explained. Each chapter contains clinical scenarios to highlight the directions in which the research is, and should be, heading.

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**ISBN:** 978-0-12-801368-7

**PREVIOUS EDITION ISBN:**

9780123751546

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 741

**AUDIENCE**

Fellows and residents in pediatric hematology/oncology, pediatrics, hematology, and oncology; pediatric hematologists, pediatric oncologists, pediatricians; clinical researchers in pediatric hematology/oncology

## Lanzkowsky's Manual of Pediatric Hematology and Oncology, 6e

Edited by: **Philip Lanzkowsky** Chief Emeritus, Pediatric Hem/Onc, Professor, Hofstra Northwell School of Medicine, Hempstead, NY USA; **Jeffrey M. Lipton**, Head, Patient Oriented Research, Feinstein Institute for Medical Research; Professor, Pediatrics and Molecular Medicine, Hofstra Northwell School of Medicine, Hempstead, NY USA; **Jonathan D. Fish**, Attending Physician, Cohen Children's Medical Center Hem/Onc; Assistant Professor of Pediatrics, Hofstra Northwell School of Medicine, Hempstead, NY USA



**This comprehensive clinical manual provides a concise, systematic approach to the diagnosis and treatment of hematologic and oncologic cancers and disorders in children, and is based on the new standards of genetic classification and prognostic information that have emerged in the past five years**

### KEY FEATURES

- Presents a concise, systematic approach to all pediatric hematologic and oncologic disorders in one manual
- Offers an alternative to bigger references which only cover either oncologic or hematologic disorders in twice as many pages
- Presents an easy-to-read format: multiple tables, charts, and flow-diagrams for diagnosis and management of pediatric hematologic and oncologic disorders
- Includes 2 new chapters and several expanded chapters: Diagnostic, Molecular and Genomic Methodologies for the Hematologist, Transfusion Medicine, Myelodysplasia, Myeloid Leukemias, and Lymphoid Leukemias

### DESCRIPTION

*Lanzkowsky's Manual of Pediatric Hematology and Oncology, Sixth Edition*, is a comprehensive book on patient management, replete with algorithms and flow diagrams on diagnosis and management. Reflecting the considerable advances in the treatment and management of hematologic and oncologic diseases in children, the sixth edition of this successful clinical manual has been entirely updated to incorporate all current treatment protocols, new drugs, and management approaches. Its concise and easy-to-read format will enable readers to make accurate diagnoses and permit them to treat patients without having to reference larger medical textbooks.

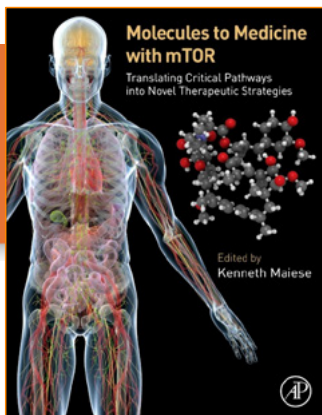
Based on the new standards of genetic classification and prognostic information that have arisen in the past five years, the sixth edition includes two new chapters (Diagnostic, Molecular, and Genomic Methodologies for the Hematologist, Transfusion Medicine) and several new expanded chapters that were previously sections in consolidated chapters (Myelodysplasia, Myeloid Leukemias, Lymphoid Leukemias, Hemolytic Anemia, and Disorders of Coagulation).

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**ISBN:** 978-0-12-802733-2

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 454

#### AUDIENCE

Scientists (cell biologists, molecular biologists, pharmacologists, vascular biologists, neuroscientists, etc.), physicians (all disciplines including cardiology, gastroenterology, internal medicine, oncology, neurology, etc.), pharmaceutical industry experts, nutritionists, and students (graduate, medical, postdoctoral, etc.) from multiple backgrounds.

## Molecules to Medicine with mTOR

### *Translating Critical Pathways into Novel Therapeutic Strategies*

Edited by: **Kenneth Maiese** Professor and Chair, Department of Neurology and Neurosciences, University of Medicine and Dentistry of New Jersey, USA



**Translates mTOR cellular pathways into effective therapeutic strategies while addressing the potential biological consequences of the mTOR pathway during normal physiology and disease**

#### KEY FEATURES

- Covers the role of mTOR by internationally recognized expert contributors in the field.
- Provides a clear picture of the complexity of mTOR signaling as well as of the different approaches that could target this pathway at various levels.
- Includes analysis of the role of mTOR and in both health and disease.
- Serves as an important resource for a broad audience of healthcare providers, scientists, drug developers, and students in both clinical and research settings.

#### DESCRIPTION

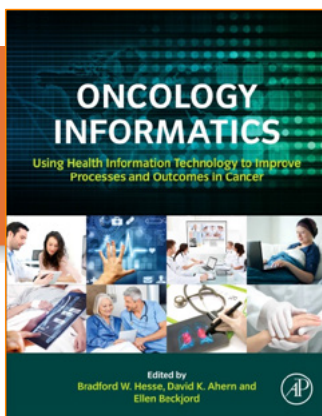
*Molecules to Medicine with mTOR: Translating Critical Pathways into Novel Therapeutic Strategies* is a one-stop reference that thoroughly covers the mechanistic target of rapamycin (mTOR). mTOR, also known as the mammalian target of rapamycin, is a 289-kDa serine/threonine protein kinase that is ubiquitous throughout the body and has a critical role in gene transcription and protein formation, stem cell development, cell survival and senescence, aging, immunity, tissue regeneration and repair, metabolism, tumorigenesis, oxidative stress, and pathways of programmed cell death that include apoptosis and autophagy. Incorporating a translational medicine approach, this important reference highlights the basic cellular biology of mTOR pathways, presents the role of mTOR during normal physiologic function and disease, and illustrates how the mechanisms of mTOR can be targeted for current and future therapeutic treatment strategies. Coverage of mTOR signaling includes the entire life cycle of cells that impacts multiple systems of the body including those of nervous, cardiovascular, immune, musculoskeletal, endocrine, reproductive, renal, and respiratory origin.

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**ISBN:** 978-0-12-802115-6

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 384

**AUDIENCE**

Researchers (cancer researchers, informatics researchers, health services researchers, organizational scientists, intervention scientists), physicians (oncology, internal medicine, obstetrics-gynecology, gastroenterology, dermatology), allied health care professions (nurses, navigators, laboratory services, radiologists, hospital administrators, behavioral medicine), designers (system support entrepreneurs, Health I.T. developers, and hospital practice designers)

## Oncology Informatics

*Using Health Information Technology to Improve Processes and Outcomes in Cancer Care*

*Bradford W. Hesse* Chief, NCI's Health Communication and Informatics Research Branch; *David Ahern* Professor of Psychology, Harvard Medical School, Director of the Program in Behavioral Informatics and eHealth, Brigham and Womens Hospital, Boston, MA; *Ellen Beckjord* Assistant Professor of Biobehavioral Medicine in Oncology Program, University of Pittsburgh Cancer Institute



**Providing a bridge between informatics and oncology that is built for change, this book encapsulates the NCI-collected evidence into a format that is optimally useful for hospital planners, physicians, researchers, and informaticians alike as they collectively strive to accelerate progress against cancer using informatics tools**

### KEY FEATURES

- Presents a pragmatic perspective for practitioners and allied health care professionals on how to implement Health I.T. solutions in a way that will minimize disruption while optimizing practice goals
- Proposes evidence-based guidelines for designers on how to create system interfaces that are easy to use, efficacious, and timesaving
- Offers insight for researchers into the ways in which informatics tools in oncology can be utilized to shorten the distance between discovery and practice

### DESCRIPTION

*Oncology Informatics: Using Health Information Technology to Improve Processes and Outcomes in Cancer Care* encapsulates NCI-collected evidence into a format that is optimally useful for hospital planners, physicians, researchers, and informaticians alike as they collectively strive to accelerate progress against cancer using informatics tools.

Anyone who wishes to take full advantage of the health information revolution in oncology to accelerate successes against cancer will find the information in this book valuable. It is a translational guide for moving evidence into practice, and meets recommendations from the national Academies of Science to reorient the research portfolio toward providing greater cognitive support for physicians, patients, and their caregivers to improve patient outcomes.

Data from systems studies have suggested that oncology and primary care systems are prone to errors of omission that can lead to fatal consequences downstream. By infusing the best science across disciplines, this book creates new environments of smart and connected health and acts as a formational guide for turning clinical systems into engines of discovery.

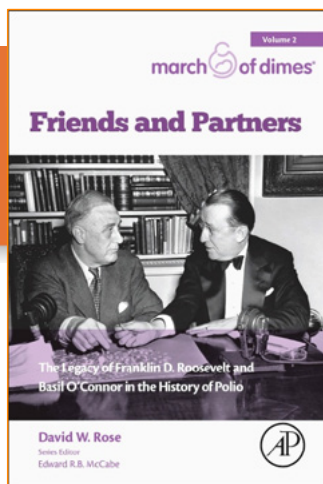
Following recommendations from the IOM's Roundtable on Evidence-Based Medicine, the authors encapsulate best practice for creating a Learning Healthcare System in oncology.

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**ISBN:** 978-0-12-803597-9

**PUB DATE:** March 2016

**FORMAT:** Paperback

**PAGES:** c. 200

#### AUDIENCE

Professionals and students in public health, non-profit management, biography, and the history of medicine

## Friends and Partners

*The Legacy of Franklin D. Roosevelt and Basil O'Connor in the History of Polio*

David W. Rose Archivist, March of Dimes Foundation, White Plains, NY, USA



A volume in the *March of Dimes Monograph* series, this book offers exclusive insight into the work of these heroes of public health who together became the recognized architects of the fight against polio in the United States, including little known aspects of their partnership and how they worked together

#### KEY FEATURES

- Presents the story of two men, one the President of the United States, the other an ambitious attorney, who became the architects of the fight against polio
- Draws upon the March of Dimes archive to provide information exclusive to this publication
- Constitutes the first biography of public health hero Basil O'Connor
- Provides historical insights into the development of philanthropy in conjunction with major public health initiatives

#### DESCRIPTION

*Friends and Partners: The Legacy of Franklin D. Roosevelt and Basil O'Connor in the History of Polio* presents the story of two men, one the President of the United States, the other an ambitious attorney, who became the "architects of the fight against polio." With unfettered access to the March of Dimes Archives, this book explores the friendship and partnership that ensured the end of polio in the US, with exclusive pictures and documentation.

The book describes the founding and history of Franklin D. Roosevelt's (FDR) polio colony in Warm Springs, Georgia, and the early years of the March of Dimes as established by FDR in 1938 as the National Foundation for Infantile Paralysis. Other little-known aspects of the partnership are also included, such as O'Connor's participation in FDR's "Brain Trust," the President's birthday ball fundraisers during the Great Depression, the March of Dimes during World War II, and O'Connor's simultaneous leadership of the American Red Cross. Finally, the book explores, in detail, how O'Connor used the legacy of FDR after his death in 1945 to promote the philosophy of "freedom from disease" to achieve the goal of ending polio through the March of Dimes. *Friends and Partners: The Legacy of Franklin D. Roosevelt and Basil O'Connor in the History of Polio* will appeal to researchers, students, and policy makers in public health and medicine as well as all those interested in learning more about this pivotal period in history.

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# METABOLIC PHENOTYPING IN PERSONALIZED AND PUBLIC HEALTHCARE



EDITED BY  
ELAINE HOLMES  
JEREMY R. NICHOLSON  
ARA W. DARZI  
JOHN C. LINDON



**ISBN:** 978-0-12-800344-2

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 410

## AUDIENCE

Principally genomics and metabolomics researchers, translational biologists, bioanalytical chemists, biochemists, related clinicians, and anyone more broadly interested in systems-level approaches, whether in systems biology, biotechnology, toxicology or pharmaceutical sciences.

## Metabolic Phenotyping in Personalized and Public Healthcare

Edited by: **Jeremy Nicholson** Head of Surgery and Cancer, Professor of Biological Chemistry, Imperial College London, London, UK; **Ara Darzi** Head of Biosurgery and Surgical Technology, Hamlyn Chair of Surgery, Imperial College London, London, UK; **Elaine Holmes** Head of Computational and Systems Medicine, Professor of Chemical Biology, Imperial College London, London, UK; **John C. Lindon** Division of Computational and Systems Medicine, Department of Surgery and Cancer, Imperial College London, London, UK



**Evaluates metabolic profiling and its uses across personalized and population healthcare, while also covering the advent of such new technology fields as surgical metabonomics**

## KEY FEATURES

- Translates the conjunction of new surgical tools for intraoperative, real-time, metabolite evaluation and direct analysis of biofluid samples into novel options for augmented clinical decision-making
- Discusses longitudinal sampling from individual patients for stratified medicine
- Covers high resolution analytical spectroscopy and sophisticated computational modelling for prediction of adverse reactions in critical care scenarios, prognostic evaluation of cancer from biofluidism, and prognostic prediction of metabolism or response of patients to pharmaceutical interventions
- Encapsulates recent technology options for broader population profiling considerations, in particular, the metabolome-wide association studies (MWAS) that aid the translational researcher in identifying metabolic patterns associated with disease
- Foreword written by Professor Dame Sally Davies who is the Chief Medical Officer for England

## DESCRIPTION

*Metabolic Phenotyping in Personalized and Public Healthcare* provides information on the widespread recognition that a personalized or stratified approach to patient treatment may offer a more efficient and effective healthcare solution than phenotype-led approaches.

In order to achieve that objective, a deep personal description is required at the level of the genome, proteome, metabolome, or preferably a combination of these aided by technology. This book, edited and written by the outstanding luminaries of this evolving field, evaluates metabolic profiling and its uses across personalized and population healthcare, while also covering the advent of new technology fields, such as surgical metabonomics.

In addition, the text presents specific examples of where this technology has been used clinically and with efficacy, pointing towards a framework and protocol for usage as it hits the clinical mainstream.

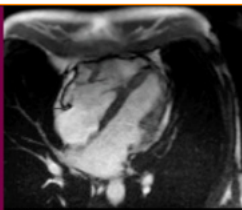
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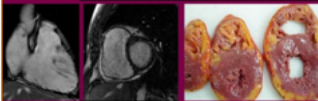


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**Cardiac MRI**  
in Diagnosis, Clinical  
Management and Prognosis of  
**Arrhythmogenic Right Ventricular  
Cardiomyopathy/Dysplasia**



Alden Abidov  
Isabel B. Oliva  
Frank I. Marcus



**ISBN:** 978-0-12-801283-3

**PUB DATE:** March 2016

**FORMAT:** Paperback

**PAGES:** c. 204

**AUDIENCE**

cardiologists, pediatric cardiologists,  
cardiac imaging and  
electrophysiology specialists as well  
as cardiology researchers.

## The Cardiac MRI in Diagnosis, Clinical Management, and Prognosis of Arrhythmogenic Right Ventricular Cardiomyopathy/Dysplasia

**Alden Abidov** Director of Cardiovascular Imaging and Leonard C. Pfeiffer Chair of Cardiovascular Medicine, The University of Arizona Medical Center, Tucson, AZ

**Isabel Oliva** Department of Medical Imaging, University of Arizona College of Medicine, Tucson, AZ

**FRANK I. MARCUS** Emeritus Professor of Medicine, Cardiology, Department of Medicine, University of Arizona Health Sciences Center



**This book provides a comprehensive, evidence-based look at the most effective CMR protocols for screening and diagnosis of ARVC, and is an ideal pocket companion for cardiologists, pediatric cardiologists, cardiac imaging, and electrophysiology specialists.**

### KEY FEATURES

- The only comprehensive MRI reference focused and dedicated on the utilization of MRI in screening, diagnosis, therapeutic guidance and prognostic assessment of ARVC/D.
- Provides evidence based diagnostic and prognostic algorithms for management of patients with known and suspected ARVC/D.
- Contains concise clinical CMR acquisition protocol and evidence-based summaries of recommendations and multiple practical tips and tricks shared by experts in the field.
- Includes practical guidelines helping to determine pre-test and post-test likelihood of ARVC/D; as well as CMR evidence of the disease progression.
- Accompanying website provides complementary videos important for the understanding of ARVC diagnosis.

### DESCRIPTION

***The Cardiac MRI in Diagnosis, Clinical Management and Prognosis of Arrhythmogenic Right Ventricular Cardiomyopathy / Dysplasia*** provides up-to-date information regarding the most effective diagnostic protocols and CMR sequences for the evaluation of patients with suspected or known ARVC/D. It includes CMR protocol summaries and clinical algorithms presented as flow diagrams, many of which have never been previously published. The book contains case reports from the practice and database of Dr. Frank I. Marcus, world renowned ARVC/D expert; as well as input from imaging experts from a large academic center with unique RV pathology imaging experience. This title is the perfect pocket companion for cardiologists, pediatric cardiologists, cardiac imaging and electrophysiology specialists as well as cardiology researchers.

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Edited by Brian E. Dixon

# HEALTH INFORMATION EXCHANGE

Navigating and Managing a Network of Health Information Systems



**ISBN:** 978-0-12-803135-3

**PUB DATE:** February 2016

**FORMAT:** Paperback

**PAGES:** c. 274

## AUDIENCE

practitioners and clinical researchers involved in health systems development; advanced undergraduate and graduate students studying HIE as well as health IT; health care organizations and independent learners seeking to train for HIT related certifications.

## Health Information Exchange

### *Navigating and Managing a Network of Health Information Systems*

Edited by: **Brian Dixon** Assistant Professor, Richard M. Fairbanks School of Public Health, Indiana University. Research Scientist, Center for Biomedical Informatics, Regenstrief Institute



**As a foundational guide to the technical, policy, organizational and professional aspects of HIE, this book provides health professionals with the most advanced tactics they can use to appropriately access and securely share patients' vital medical information electronically, all in an effort to improve the speed, quality, safety, and cost of patient care**

## KEY FEATURES

- Offers foundational knowledge on Health Information Exchange (HIE), covering the broad areas of technology, governance, and policy
- Focuses on explaining HIE and its complexities in the context of U.S. health reform, as well as emerging health IT activities in foreign nations
- Provides a number of in-depth case studies to connect learners to real-world application of the content and lessons from the field
- Offers didactic content organization and an increasing complexity through five parts

## DESCRIPTION

*Health Information Exchange (HIE): Navigating and Managing a Network of Health Information Systems* allows health professionals to appropriately access, and securely share, patients' vital medical information electronically, thus improving the speed, quality, safety, and cost of patient care.

The book presents foundational knowledge on HIE, covering the broad areas of technology, governance, and policy, providing a concise, yet in-depth, look at HIE that can be used as a teaching tool for universities, healthcare organizations with a training component, certification institutions, and as a tool for self-study for independent learners who want to know more about HIE when studying for certification exams.

In addition, it not only provides coverage of the technical, policy, and organizational aspects of HIE, but also touches on HIE as a growing profession. In Part One, the book defines HIE, describing it as an emerging profession within HIT/Informatics. In Part Two, the book provides key information on the policy and governance of HIE, including stakeholder engagement, strategic planning, sustainability, etc. Part Three focuses on the technology behind HIE, defining and describing master person indexes, information infrastructure, interfacing, and messaging, etc. In Part Four, the authors discuss the value of HIE, and how to create and measure it. Finally, in Part Five, the book provides perspectives on the future of HIE, including emerging trends, unresolved challenges, etc.

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Edited by  
Carole R. Baskin and Alan P. Zelicoff



## Ensuring National Biosecurity

Institutional Biosafety Committees



**ISBN:** 978-0-12-801885-9

**PUB DATE:** February 2016

**FORMAT:** Paperback

**PAGES:** c. 258

### AUDIENCE

Professional life scientists,  
environmental health and safety  
professionals, public health  
researchers, policy makers

## Ensuring National Biosecurity

### *Institutional Biosafety Committees*

Edited by: **Carole R Baskin** Associate Professor, Environmental and Occupational Health, Saint Louis University, MO, USA; Deputy Director, Institutional Animal Care and Use Committee (IACUC), St Louis University, St. Louis, MO, USA  
**Alan Zelicoff** Professor, Environmental and Occupational Health and Epidemiology, St. Louis University, St. Louis, MO, USA



**Professional reference illuminating the current state of Institutional Biosafety Committees (IBCs) for life scientists**

### KEY FEATURES

- Examines and assesses the current state of Institutional Biosafety Committees (IBCs)
- Collates contributions from world-renowned experts in fields as diverse as research compliance, law and astrobiology
- Reflects an international perspective on regulatory biosecurity and biosafety

### DESCRIPTION

*Ensuring National Biosecurity: Institutional Biosafety Committees* reviews the various responsibilities and associated challenges Institutional Biosafety Committees (IBCs) face and proposes changes that may help improve this system and increase national biosecurity and worker safety.

In recent years IBCs in academic and other institutions have been tasked with increasing levels of responsibility, overseeing work with recombinant genetic material and hazardous agents. IBC members often lack the training to effectively ensure that the work performed is truly safe for scientists and the general community, and so increasingly rely upon the expertise of the researchers themselves. With the proposed US dual-use research policies soon to be implemented, this strain may increase. This book provides readers with the necessary information to be able to enhance national biosecurity within the US, EU, Australia, New Zealand, Japan and more.

*Ensuring National Biosecurity* is as an invaluable reference for biosafety professionals or for researchers who need to understand the regulatory landscape that impacts their research.

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SKIN TISSUE  
ENGINEERING  
AND REGENERATIVE  
MEDICINE

Mohammad Z. Albanna & James H. Holmes IV



**ISBN:** 978-0-12-801654-1

**PUB DATE:** January 2016

**FORMAT:** Paperback

**PAGES:** c. 454

**AUDIENCE**

biomedical researchers in the fields of tissue engineering and regenerative medicine; stem cell researchers

## Skin Tissue Engineering and Regenerative Medicine

**Mohammad Z. Albanna** Adjunct Assistant Professor of General Surgery, Wake Forest University School of Medicine, Winston-Salem, NC, USA; Sr. R&D Manager, Pinnacle Transplant Technologies, Phoenix, AZ, USA

**James H Holmes IV** Associate Professor of Surgery, Wake Forest University School of Medicine and Director, Wake Forest Baptist Medical Center (WFBMC) Burn Center, Winston-Salem, NC, USA



**As a concise guide to the approaches, biological discoveries, and technologies in skin regeneration and wound repair, this book presents biomedical researchers across fields with a greater understanding of the interdisciplinary approaches and research areas which have expanded available therapies for patients**

### KEY FEATURES

- Explores cellular and molecular processes of wound healing, scar formation, and dermal repair
- Includes examples of animal models for wound healing and translation to the clinical world
- Presents the current state of, and clinical opportunities for, extracellular matrices, natural biomaterials, synthetic biomaterials, biologic skin substitutes, and adult and fetal stem and skin cells for skin regenerative therapies and wound management
- Discusses new innovative approaches for wound healing including skin bioprinting and directed cellular therapies

### DESCRIPTION

The skin is the largest human organ system. Loss of skin integrity due to injury or illness results in a substantial physiologic imbalance and ultimately in severe disability or death. From burn victims to surgical scars and plastic surgery, the therapies resulting from skin tissue engineering and regenerative medicine are important to a broad spectrum of patients.

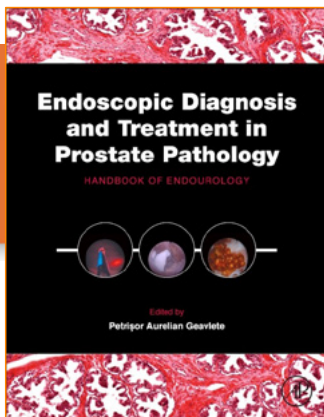
*Skin Tissue Engineering and Regenerative Medicine* provides a translational link for biomedical researchers across fields to understand the inter-disciplinary approaches which expanded available therapies for patients and additional research collaboration. This work expands on the primary literature on the state of the art of cell therapies and biomaterials to review the most widely used surgical therapies for the specific clinical scenarios.

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**ISBN:** 978-0-12-802405-8

**PUB DATE:** January 2016

**FORMAT:** Hardback

**PAGES:** c. 206

**AUDIENCE**

Fellows, residents, and practicing clinicians in urology, surgery, and internal medicine

## Endoscopic Diagnosis and Treatment in Prostate Pathology

### *Handbook of Endourology*

Edited by: *Petrisor Aurelian Geavlete* Faculty of Medicine, Department of Urology, University of Medicine and Pharmacy "Carol Davila" Bucharest, Bucharest, Romania



**Covers the latest techniques and technologies in endourology, and contains five focused, review-oriented volumes that are ideal for students and clinicians looking for a comprehensive review of both the endourological diagnosis and treatment of prostate, urethral, urinary bladder, upper urinary tract, and renal pathology**

#### KEY FEATURES

- Offers review content for urologists in training and "refresher" content for experts in endourology
- Explores new surgical techniques and technology through review-level content and extensive images of pathologies
- Includes over 500 images per volume; images taken from more than 4000 endourologic procedures performed annually at the editor's hospital

#### DESCRIPTION

*Handbook of Endourology* contains five focused, review-oriented volumes that are ideal for students and clinicians looking for a comprehensive review rather than a whole course. Each volume is easily accessible through eBook format.

Topics covered review both the endourological diagnosis and treatment of prostate, urethral, urinary bladder, upper urinary tract, and renal pathology. All chapters describe the most recent techniques, review the latest results, and analyze the most modern technologies.

In the past ten years, the field of endourology has expanded beyond the urinary tract to include all urologic minimally invasive surgical procedures. Recent advancements in robotic and laparoscopic bladder surgery make this one of the fastest moving fields in medicine.

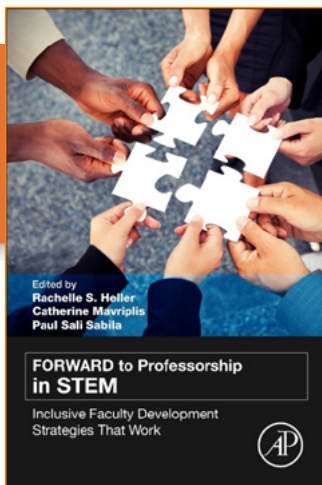
As current textbooks are too time-consuming for busy urologists or trainees who also need to learn other areas of urology, this collection provides quick references and over 4000 images that are appropriate for fellows as well as those teaching in the field.

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**ISBN:** 978-0-12-800855-3

**PUB DATE:** December 2015

**FORMAT:** Paperback

**PAGES:** c. 420

#### **AUDIENCE**

Those pursuing or involved in a career in the STEM fields, including students and academics as well as university administrators and industry professionals. Additional markets include academic and professional women's organizations and those involved in professional development training and workshops.

## **FORWARD to Professorship in STEM**

### ***Inclusive Faculty Development Strategies That Work***

**Rachelle S. Heller** Academic Affairs, Mount Vernon Campus The George Washington University, Washington DC, USA

**Catherine Mavriplis** Department of Mechanical Engineering, University of Ottawa, Ottawa, ON, Canada

**Paul S. Sabila** Department of Science, Technology, & Mathematics, Gallaudet University, Washington DC, USA



**Offers practical tools, advice, and insight into designing and implementing inclusive career development workshops, with a comprehensive focus on assisting women and other underrepresented groups to succeed in obtaining tenure track faculty positions**

#### **KEY FEATURES**

- Offers insights from a variety of institutions, STEM disciplines, and backgrounds
- Contains valuable information on diversity, leadership, minorities, work-life satisfaction, and professional career development
- Provides best practices on how to design and implement inclusive workshops aimed at supporting faculty and staff in their career development
- Covers topics such as tenure and beyond, collaborations and funding, impact on, and of, the deaf culture, and engaging differences
- Provides specific avenues and processes for implementing inclusive professional development workshops
- Includes appendices on budgeting and programming examples

#### **DESCRIPTION**

*FORWARD to Professorship in STEM: Inclusive Faculty Development Strategies That Work* provides best practices on how to design and implement inclusive workshops aimed at supporting faculty and staff in their career development.

The book addresses fundamental skills and strategies to excel in academia, with a focus on assisting women and other underrepresented groups to succeed in obtaining tenure-track faculty positions, and in acquiring tenure.

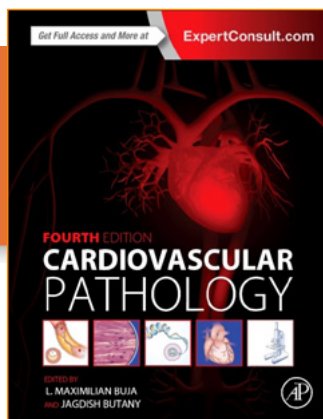
Contributors from wide geographical, disciplinary, and career backgrounds offer their insights on challenges in academia, lessons learned, and successes, with chapters devoted to tenure and beyond, collaborations and funding, impact on, and of, the deaf culture, and engaging differences.

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**ISBN:** 978-0-12-420219-1

**PREVIOUS EDITION ISBN:**

978-0443065354

**PUB DATE:** January 2016

**FORMAT:** Hardback

**PAGES:** c. 814

**AUDIENCE**

Biomedical researchers, practicing physicians, residents, and medical students across the fields of pathology, cardiology, surgery, and internal medicine

## Cardiovascular Pathology, 4e

Edited by: **L. Maximilian Buja** The University of Texas Health Science Center at Houston, TX, USA; Houston Academy of Medicine – Texas Medical Center Library, Houston, TX, USA

**Jagdish Butany** Professor, University of Toronto & Director, Division of Pathology, Department of Laboratory Medicine and Pathobiology, University Health Network / Laboratory Medicine Program Toronto General Hospital; Consultant Cardiovascular Pathologist/Director Autopsy Services, Toronto, Ontario, Canada



**This updated book provides an encyclopedic translational reference on cardiovascular disease that includes a comprehensive overview encompassing its examination, cardiac structure both normal and physiologically altered, and a multitude of abnormalities to offer users the most current views on interventions both medical and surgical, and the pathology related to them.**

**Customers buy the Print + Electronic product together!**

### KEY FEATURES

- Serves as a contemporary, all-inclusive guide to cardiovascular pathology for clinicians and researchers, as well as clinical residents and fellows of pathology, cardiology, cardiac surgery, and internal medicine
- Offers new organization of each chapter to enable uniformity for learning and reference: Definition, Epidemiology, Clinical Presentation, Pathogenesis/Genetics, Light and Electron Microscopy/Immunohistochemistry, Differential Diagnosis, Treatment and Potential Complications
- Features six new chapters and expanded coverage of the normal heart and blood vessels, cardiovascular devices, congenital heart disease, tropical and infectious cardiac disease, and forensic pathology of the cardiovascular system
- Contains 400+ full color illustrations and an online image collection facilitate research, study, and lecture slide creation

### DESCRIPTION

*Cardiovascular Pathology, Fourth Edition*, provides users with a comprehensive overview that encompasses its examination, cardiac structure, both normal and physiologically altered, and a multitude of abnormalities. This updated edition offers current views on interventions, both medical and surgical, and the pathology related to them.

Congenital heart disease and its pathobiology are covered in some depth, as are vasculitis and neoplasias. Each section has been revised to reflect new discoveries in clinical and molecular pathology, with new chapters updated and written with a practical approach, especially with regards to the discussion of pathophysiology. New chapters reflect recent technological advances with cardiac devices, transplants, genetics, and immunology. Each chapter is highly illustrated and covers contemporary aspects of the disease processes, including a section on the role of molecular diagnostics and cytogenetics as specifically related to cardiovascular pathology.

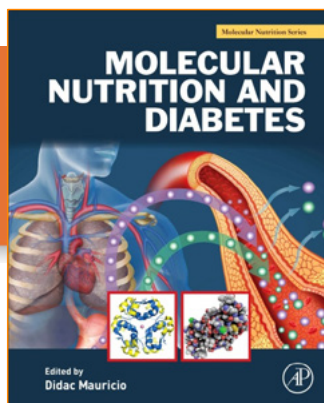
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**ISBN:** 978-0-12-801585-8

**PUB DATE:** December 2015

**FORMAT:** Hardback

**PAGES:** c. 384

**AUDIENCE**

Researchers in diabetes, nutrition, diet, and metabolism; graduate students in nutrition, epidemiology and public health; and practicing nutritionists and endocrinologists

## Molecular Nutrition and Diabetes

### *A Volume in the Molecular Nutrition Series*

Edited by: **Didac Mauricio** Chief Physician and Acting Head of the Department of Endocrinology & Nutrition, University Hospital Germans Trias i Pujol, Barcelona, Spain; Associate Professor, School of Medicine, University of Lleida, Lleida, Spain; CIBER of Diabetes and Associated Metabolic Diseases (CIBERDEM), Instituto de Salud Carlos III, Spain



**This concise reference focused on diabetes as a nutritional problem is an ideal accompaniment for researchers in diabetes, nutrition, and diabetic metabolism that includes sections on nutrition, molecular biology, the genetic machinery behind diabetes and diabetic metabolism, and the most updated clinical research on the topic**

#### KEY FEATURES

- Offers updated information and a perspective on important future developments to different professionals involved in the basic and clinical research on all major nutritional aspects of diabetes mellitus
- Explores how nutritional factors are involved in the pathogenesis of both type1 and type2 diabetes and their complications
- Investigates the molecular and genetic bases of diabetes and diabetic metabolism through the lens of a rapidly evolving field of molecular nutrition

#### DESCRIPTION

*Molecular Nutrition and Diabetes: A Volume in the Molecular Nutrition Series* focuses on diabetes as a nutritional problem and its important metabolic consequences. Fuel metabolism and dietary supply all influence the outcome of diabetes, but understanding the pathogenesis of the diabetic process is a prelude to better nutritional control.

Part One of the book provides general coverage of nutrition and diabetes in terms of dietary patterns, insulin resistance, and the glucose-insulin axis, while Part Two presents the molecular biology of diabetes and focuses on areas such as oxidative stress, mitochondrial function, insulin resistance, high-fat diets, nutraceuticals, and lipid accumulation. Final sections explore the genetic machinery behind diabetes and diabetic metabolism, including signaling pathways, gene expression, genome-wide association studies, and specific gene expression. While the main focus of each chapter is the basic and clinical research on diabetes as a nutritional problem, all chapters also end with a translational section on the implications for the nutritional control of diabetes.

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# TRANSLATIONAL MEDICINE: TOOLS AND TECHNIQUES



**ISBN:** 978-0-12-803460-6

**PUB DATE:** November 2015

**FORMAT:** Paperback

**PAGES:** c. 180

## AUDIENCE

practitioners and researchers working in biomedical research, health center administrators, health professions associations, life sciences industry professionals in pharma, biotech, medical instruments, diagnostic companies, CROs, research reagent Suppliers, IT service providers, data management companies, senior to junior level academic faculty members, post graduate students and scholars, public health professionals, regulatory affairs professionals

## Translational Medicine: Tools And Techniques

Edited by: **Aamir Shahzad** President: European Society for Translational Medicine (EUSTM), Vienna, Austria School of Medicine, University of Colorado, Aurora, CO, USA



**A user guide for institutional implementation**

### KEY FEATURES

- Includes detailed and standardized information about the techniques and tools used in translational medicine
- Provides specific industry case scenarios
- Explains how to use translational medicine tools and techniques to plan and improve infrastructures and capabilities while reducing cost and optimizing resources

### DESCRIPTION

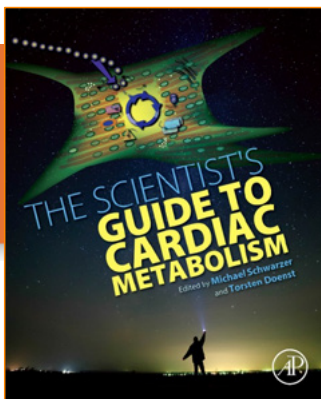
*Translational Medicine: Tools and Techniques* provides a standardized path from basic research to the clinic and brings together various policy and practice issues to simplify the broad interdisciplinary field. With discussions from academic and industry leaders at international institutions who have successfully implemented translational medicine techniques and tools in various settings, readers will be guided through implementation strategies relevant to their own needs and institutions. The book also addresses regulatory processes in USA, EU, Japan and China. By providing details on omics sciences techniques, biomarkers, data mining and management approaches, case reports from industry, and tools to assess the value of different technologies and techniques, this book is the first to provide a user-friendly go-to guide for key opinion leaders (KOLs), industry administrators, faculty members, clinicians, researchers, and students interested in translational medicine.

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**ISBN:** 978-0-12-802394-5

**PUB DATE:** November 2015

**FORMAT:** Paperback

**PAGES:** c. 228

**AUDIENCE**

scientists, researchers, and newcomers in cardiac metabolism

## The Scientist's Guide to Cardiac Metabolism

Edited by: **Michael Schwarzer** Department of Cardiothoracic Surgery, Friedrich Schiller University of Jena, Jena, Germany

**Torsten Doenst** Director of the Department of Cardiothoracic Surgery, University of Jena, Germany, W3 Professor of Cardiac Surgery, Göttingen, Germany



**A comprehensive reference on the basic concepts of substrate metabolism, regulation, and interaction within the cell and organism, all presented by experts**

### KEY FEATURES

- Provides a quick and comprehensive introduction into cardiac metabolism
- Contains an integrated view on cardiac metabolism and its interrelation in metabolism with other organs
- Presents insights into substrate metabolism in relation to intracellular organization and structure as well as whole organ function
- Includes historical perspectives that reference important investigators that have contributed to the development of the field

### DESCRIPTION

*The Scientists Guide to Cardiac Metabolism* combines the basic concepts of substrate metabolism, regulation, and interaction within the cell and the organism to provide a comprehensive introduction into the basics of cardiac metabolism.

This important reference is the perfect tool for newcomers in cardiac metabolism, providing a basic understanding of the metabolic processes and enabling the newcomer to immediately communicate with the expert as substrate/energy metabolism becomes part of projects.

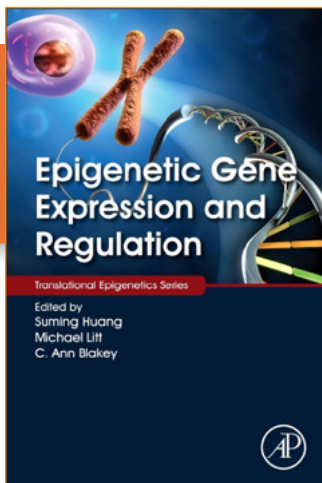
The book is written by established experts in the field, bringing together all the concepts of cardiac metabolism, its regulation, and the impact of disease.

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**ISBN:** 978-0-12-799958-6

**PUB DATE:** December 2015

**FORMAT:** Hardback

**PAGES:** c. 462

#### AUDIENCE

Basic biology and translational researchers above graduate level interested in developmental biology, genetics, health genomics, epigenesis in complex disease, and therapeutic possibilities

## Epigenetic Gene Expression and Regulation

Edited by: **Suming Huang** Associate Professor, Dept. of Biochemistry & Molecular Biology, University of Florida College of Medicine

**Michael D Litt** Associate Professor of Medical Education Genetics, Ball State University

**Cynthia Ann Blakey** Associate Professor, Department of Biology, Ball State University



**Discusses the science of epigenetic control of gene expression, explaining how it contributes to cellular differentiation and development and how aberrant epigenetic control can manifest in disease**

#### KEY FEATURES

- Reviews current knowledge on the heritable molecular mechanisms that regulate gene expression, contribute to disease susceptibility, and point to potential treatment in future therapies
- Helps readers understand how epigenetic marks are targeted, and to what extent transgenerational epigenetic changes are instilled and possibly passed onto offspring
- Chapters are replete with clinical examples to empower the basic biology with translational significance
- Offers more than 100 illustrations to distill key concepts and decipher complex science

#### DESCRIPTION

*Epigenetic Gene Expression and Regulation* reviews current knowledge on the heritable molecular mechanisms that regulate gene expression, contribute to disease susceptibility, and point to potential treatment in future therapies.

The book shows how these heritable mechanisms allow individual cells to establish stable and unique patterns of gene expression that can be passed through cell divisions without DNA mutations, thereby establishing how different heritable patterns of gene regulation control cell differentiation and organogenesis, resulting in a distinct human organism with a variety of differing cellular functions and tissues.

The work begins with basic biology, encompasses methods, cellular and tissue organization, topical issues in epigenetic evolution and environmental epigenesis, and lastly clinical disease discovery and treatment.

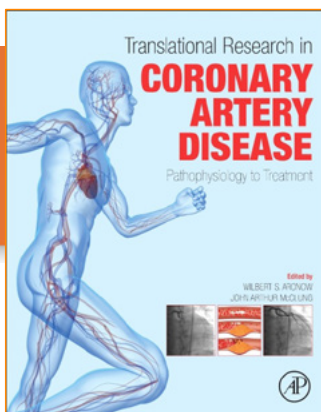
Each highly illustrated chapter is organized to briefly summarize current research, provide appropriate pedagogical guidance, pertinent methods, relevant model organisms, and clinical examples.

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**ISBN:** 978-0-12-802385-3

**PUB DATE:** November 2015

**FORMAT:** Paperback

**PAGES:** c. 230

**AUDIENCE**

Cardiovascular scientists,  
cardiovascular practitioners,  
medical students, biomedical  
graduate students

## Translational Research in Coronary Artery Disease

### *Pathophysiology to Treatment*

Edited by: **Wilbert S. Aronow** Professor of Medicine, New York Medical College, Valhalla, NY, USA

**John Arthur McClung** Director, Non-Invasive Cardiology Lab, Professor of Clinical Medicine & Public Health, New York Medical College, Valhalla, NY, USA



**A concise reference to the most important current research insights into the etiology, pathophysiology, and potential treatment options for coronary disease that fully explains the fundamental aspects of coronary artery disease.**

#### KEY FEATURES

- Provides a concise summary of recent developments in coronary and vascular research, including previously unpublished data
- Summarizes in-depth discussions of the pathobiology and novel treatment strategies for coronary artery disease
- Provides access to an accompanying website that contains photos and videos of noninvasive diagnostic modalities for evaluation of coronary artery disease

#### DESCRIPTION

Translational Research in Coronary Artery Disease: Pathophysiology to Treatment covers the entire spectrum of basic science, genetics, drug treatment, and interventions for coronary artery disease. With an emphasis on vascular biology, this reference fully explains the fundamental aspects of coronary artery disease pathophysiology.

Included are important topics, including endothelial function, endothelial injury, and endothelial repair in various disease states, vascular smooth muscle function and its interaction with the endothelium, and the interrelationship between inflammatory biology and vascular function.

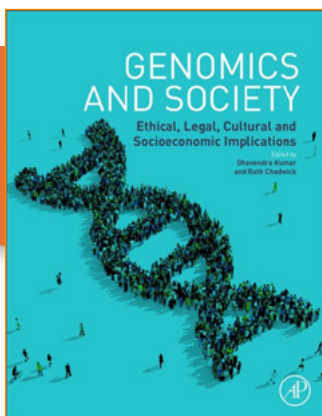
By providing this synthesis of current research literature, this reference allows the cardiovascular scientist and practitioner to access everything they need from one source.

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**ISBN:** 978-0-12-420195-8

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 414

**AUDIENCE**

Genome researchers, healthcare workers, and applied social scientists interested in bioethics, psychology, sociology, anthropology, history, philosophy, law, economics, health services research, and related disciplines

## Genomics and Society

### *Ethical, Legal, Cultural and Socioeconomic Implications*

Edited by: **Dhavendra Kumar** University Hospital of Wales, Cardiff University, Cardiff, UK

**Ruth Chadwick** Department of Bioethics, Lancaster University, Lancaster, U.K.



**Lucidly and expansively addresses the myriad of bioethical, legal, cultural, and socio-economic issues deriving from advances in genome biology and genomic medicine**

Genome researchers, healthcare workers, and applied social scientists interested in bioethics, psychology, sociology, anthropology, history, philosophy, law, economics, health services research, and related disciplines

**KEY FEATURES**

- Addresses the vast and thorny web of ELSI topics identified as core priorities of the NHGRI in 2011
- Presents the core fundamental issues of biosociety and bioeconomy as the revolution in biology moves from research lab to healthcare system
- Describes a myriad of issues around consent, including confidentiality, rights, patenting, regulation, and more

**DESCRIPTION**

*Genomics and Society; Ethical, Legal-Cultural, and Socioeconomic Implications* is the first book to address the vast and thorny web of ELSI topics identified as core priorities of the NHGRI in 2011.

The work addresses fundamental issues of biosociety and bioeconomy as the revolution in biology moves from research lab to healthcare system.

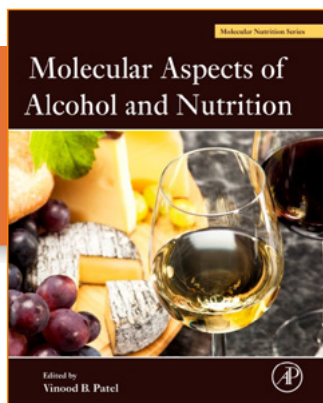
Of particular interest to healthcare practitioners, bioethicists, and health economists, and of tangential interest to the gamut of applied social scientists investigating the societal impact of new medical paradigms, the work describes a myriad of issues around consent, confidentiality, rights, patenting, regulation, and legality in the new era of genomic medicine.

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**ISBN:** 978-0-12-800773-0

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 384

**AUDIENCE**

Researchers in nutrition, diet, and metabolism, and alcohol; graduate students in nutrition, epidemiology and public health; and practicing nutritionists and endocrinologists

## Molecular Aspects of Alcohol and Nutrition

*A Volume in the Molecular Nutrition Series*

Edited by: **Vinood B. Patel** University of Westminster, London, UK



**This book provides a valuable resource for those who study alcohol-related diseases and attempt to treat them through nutritional strategies, and includes both the primary and secondary consequences of alcohol consumption with discussions that range from the basic science of alcohol metabolism to its effects on many extrahepatic organs and tissues.**

### KEY FEATURES

- Offers a valuable resource for nutrition researchers and nutritionists who study alcohol-related diseases and attempt to treat them through nutritional strategies
- Explores how alcohol and its toxic metabolite acetaldehyde disrupt and impair normal macro and micro nutrient regulation at the molecular level
- Investigates how alcohol affects and interferes with cell signaling, cell death pathways, calcium homeostasis leading to osteoporosis, oxygen balance, as well as the pathophysiology of alcohol consumption and abuse

### DESCRIPTION

*Molecular Aspects of Alcohol and Nutrition* is a valuable resource for nutrition researchers and nutritionists who study or treat alcohol-related diseases. Experts from across the field of alcohol research explain how alcohol disrupts normal fat, carbohydrate, and protein metabolic processes occurring in the liver as well as other parts of the body.

The book discusses how this can lead to alcoholic liver disease (ALD) as well as contribute to the onset of Type 2 diabetes and the metabolic syndrome. It also explores how alcohol affects nutrient absorption in the gastrointestinal tract and can lead to anemia and reduced amounts of fat soluble vitamins.

This book explores both the primary and secondary consequences of alcohol consumption. Chapters in the first section investigate the basic science of alcohol metabolism – focusing on how alcohol and its toxic metabolites disrupt and impair normal nutrient regulation at the molecular level. Further chapters explore how alcohol affects many extra-hepatic organs and tissues as well as the secondary consequences of alcohol consumption such as reduced levels of minerals like magnesium, calcium, and trace elements like zinc.

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# Epigenomics in Health and Disease

Translational Epigenetics Series

Edited by  
Mario Fraga and  
Agustín F. Fernández

## Epigenomics in Health and Disease

Edited by: **Mario Fraga** Nanomaterials and Nanotechnology Research Center (CINN-CSIC), Cancer Epigenetics Laboratory, Institute of Oncology of Asturias (IUOPA), Universidad de Oviedo, Spain

**Agustín Fernández Fernández** Cancer Epigenetics Laboratory, Institute of Oncology of Asturias (IUOPA), HUCA, Universidad de Oviedo, Oviedo, Spain



**The book reviews the technologically-driven study of the organismal epigenome and associated translational impacts on future prognosis, diagnosis, and therapies of disease.**

### KEY FEATURES

- Presents critical reviews that provide the means for reviewing and analyzing the epigenome as a whole, also discussing its translational potential
- Combines basic epigenomic knowledge with methodological and biostatistical topics related to technology and data analysis
- Includes coverage of relatively new topics, including DNA methylation dynamics during development and differentiation, genome-wide histone post-translational modifications during development and differentiation, and genome-wide DNA methylation changes during aging

### DESCRIPTION

*Epigenomics in Health and Disease* discusses the next generation sequencing technologies shaping our current knowledge with regards to the role of epigenetics in normal development, aging, and disease.

It includes the consequences for diagnostics, prognostics, and disease-based therapies made possible by the study of the complete set of epigenetic modifications to the genetic material of human cells.

With coverage pertinent to both basic biology and translational research, the book will be of particular interest for medical and bioscience researchers and students seeking current translational knowledge in epigenesis and epigenomics.

Coverage includes the latest findings on epigenome-wide research in disease-based profiling, epidemiological implications, epigenome-wide epigenetic studies, the cancer epigenome, and other pervasive disease categories.

**ISBN:** 978-0-12-800140-0

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 312

### AUDIENCE

Graduate students, health care professionals, university researchers, pharmaceutical companies interested in drug development and biotechnology companies. This book could also serve as a core textbook for advanced university or professional school courses with a focus on genetic and/or human diseases.

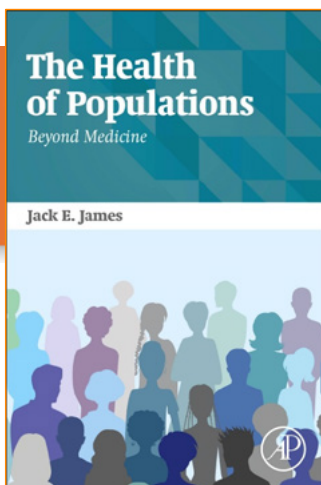
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**ISBN:** 978-0-12-802812-4

**PUB DATE:** late October 2015

**FORMAT:** Paperback

**PAGES:** c. 508

#### **AUDIENCE**

Professionals and graduate students in public health, epidemiology, sociology, health science, health promotion, health education, preventative medicine, health policy and planning, health sociology and health psychology. In addition, this book will be greatly welcomed by the interested general reader.

## **The Health of Populations**

### ***Beyond Medicine***

**Jack James** PhD, Professor of Psychology, Department of Psychology, Reykjavik University, Reykjavik, Iceland



*This book provides a carefully constructed and thoroughly evidence-based critique of the limitations of conventional biomedical healthcare. It illustrates the conditions necessary to optimize the health of populations, achieve equality in global health, and limit healthcare costs despite continued population growth and aging.*

#### **KEY FEATURES**

- Heavily evidence-based and thoroughly referenced with hundreds of scientific citations
- Contains a glossary, as well as valuable tables, illustrations, and information boxes to further explain core content
- Provides fresh perspectives on issues related to rapid population growth, population aging, rising costs, diminishing resources, health inequality, and more
- Carefully distills extensive tracts of information, clarifies misunderstandings, and rebuts myths with the ultimate goal of encouraging better understanding of the action needed to promote optimal health for all

#### **DESCRIPTION**

***The Health of Populations: Beyond Medicine*** uses current research and in-depth analysis to provide insights into the issues and challenges of population health; a subject of increasing concern, due largely to rapid population growth, population aging, rising costs and diminishing resources, health inequality, and the global rise in noncommunicable diseases. Reducing the global burden of disease requires prevention of disease incidence, which is achievable through reduction of exposure to primary (behavioral) and secondary (biomedical) risk factors. The 15 chapters of the book are divided into three sections that focus on the science of health, the harm of medicine, and how to achieve optimal health. By highlighting the benefits of preventing incidence of disease, this book illustrates how biomedicine needs to be repositioned from being the dominant approach in healthcare to being an adjunct to behavioral, legislative, social, and other preventive means for optimizing population health.

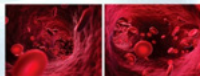
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# VASCULAR RESPONSES TO PATHOGENS



Edited by Felicity N. E. Gavins  
and Karen Y. Stokes



**ISBN:** 978-0-12-801078-5

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 240

## AUDIENCE

Cardiovascular researchers,  
cardiologists, and infectologists in  
particular in the areas of vascular  
biology, cardiology, and infectious  
disease

## Vascular Responses to Pathogens

Edited by: **Felicity N.E. Gavins** Assistant Professor, Director of the Small Animal Research Facility, LSU Health, Department of Molecular & Cellular Physiology, Louisiana State University, Shreveport, LA, USA  
**Karen Y. Stokes** Associate Professor, Department of Molecular and Cellular Physiology, Department of Microbiology & Immunology, Louisiana State University, Shreveport, LA, USA



**This book provides a complete reference guide to the impact of pathogens on the vasculature, demonstrating that common mechanisms are at play in many different diseases because they have a similar context, their vasculature. It is a must have tool for researchers and practicing clinicians.**

### KEY FEATURES

- Covers a wide spectrum of organisms and provides analysis of pathogens and current therapeutic strategies in the context of their vasculature
- Provides detailed perspectives on key components contributing to vascular pathogens from leaders in the field
- Interfaces between both vascular biology and microbiology by encompassing information on how pathogens affect both macro and microvasculature
- Includes coverage of the clinical aspects of sepsis and current therapeutic strategies and anti-sepsis drugs

### DESCRIPTION

*Vascular Responses to Pathogens* focuses on the growing research from leaders in the field for both the short and long-term impact of pathogens on the vasculature. It discusses various organisms, including bacteria, parasites, and viruses, and their role in key events leading to vascular disease.

Formatted to discuss the topic of the interaction of pathogens with the vascular rather than individual diseases described separately, this reference demonstrates that common mechanisms are at play in many different diseases because they have a similar context, their vasculature.

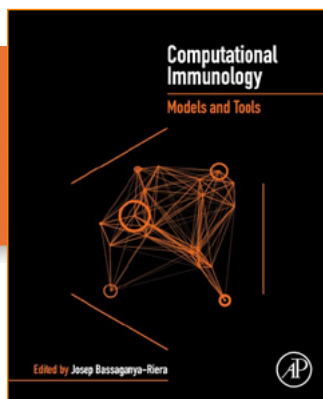
This all-inclusive reference book is a must-have tool for researchers and practicing clinicians in the areas of vascular biology, microvasculature, cardiology, and infectious disease.

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**ISBN:** 978-0-12-803697-6

**PUB DATE:** October 2015

**FORMAT:** Paperback

**PAGES:** c. 200

**AUDIENCE**

graduate students in computational biology, bioinformatics, biotechnology, computer science and immunology.

## Computational Immunology: Models and Tools

**José Bassaganya-Riera** Professor of Immunology & Director, Nutritional Immunology & Molecular Medicine Laboratory (NIMML) and Center for Modeling Immunity to Enteric Pathogens (MIEP), Virginia Bioinformatics Institute, Virginia Tech, Blacksburg, VA



**This book provides an applied approach to generating and refining hypotheses using computational modeling and simulation studies, and is an ideal resource for immunologists, computational biologists, bioinformaticians, biotechnologists, and computer scientists, as well as all those who wish to broaden their knowledge in systems modeling.**

### KEY FEATURES

- Offers case studies with different levels of complexity
- Provides a detailed view on cutting-edge tools for modeling that are useful to experimentalists with limited computational skills
- Explores the usage of simulation for hypothesis generation, helping the reader to understand the most valuable points on experimental setting

### DESCRIPTION

*Computational Immunology: Models and Tools* encompasses the methodological framework and application of cutting-edge tools and techniques to study immunological processes at a systems level, along with the concept of multi-scale modeling.

The book's emphasis is on selected cases studies and application of the most updated technologies in computational modeling, discussing topics such as computational modeling and its usage in immunological research, bioinformatics infrastructure, ODE based modeling, agent based modeling, and high performance computing, data analytics, and multiscale modeling.

There are also modeling exercises using recent tools and models which lead the readers to a thorough comprehension and applicability.

The book is a valuable resource for immunologists, computational biologists, bioinformaticians, biotechnologists, and computer scientists, as well as all those who wish to broaden their knowledge in systems modeling.

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# GENETIC DIAGNOSIS OF ENDOCRINE DISORDERS

SECOND EDITION

EDITED BY  
ROY E. WEISS  
SAMUEL REFETOFF



**ISBN:** 978-0-12-800892-8

**PREVIOUS EDITION ISBN:**  
978-0-12-374430-2

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 456

## AUDIENCE

Biomedical researchers in  
endocrinology and medical genetics,  
clinical endocrinologists, clinical  
geneticists, and genetic counselors

## Genetic Diagnosis of Endocrine Disorders, 2e

Edited by: **Roy E. Weiss** Kathleen and Stanley Glaser Distinguished Chair in Medicine and Chairman, Department of Medicine, University of Miami Leonard M. Miller School of Medicine, Miami, FL USA and Rabbi Esformes Professor Emeritus of Medicine, The University of Chicago, Chicago, IL, USA; **Samuel Refetoff** Frederick H. Rawson Professor, Departments of Medicine, Pediatrics and the Committees on Genetics and Molecular Medicine, The University of Chicago, Chicago, IL, USA



**This book presents a comprehensive translational look at all aspects of genetic diagnosis of endocrine disorders, including which tests are appropriate for different patients, which genes should be evaluated for subjects with congenital hypothyroidism, and which genetic tests should be ordered in obese patients or for those with parathyroid carcinoma.**

## KEY FEATURES

- Offers a clear presentations of pharmacogenetics and the actual assays used in detecting endocrine diseases
- Teaches the essentials of the genetic basis of disease in each major endocrine organ system
- Offers expert advice from genetic counselors on how to use genetic information in counseling patients
- Includes new chapters on the genetics of lipid disorders and glycogen storage diseases, genetics of hypoglycemia, and whole genome/exome sequencing

## DESCRIPTION

Genetic Diagnosis of Endocrine Disorders, Second Edition provides users with a comprehensive reference that is organized by endocrine grouping (i.e., thyroid, pancreas, parathyroid, pituitary, adrenal, and reproductive and bone), discussing the genetic and molecular basis for the diagnosis of various disorders.

The book emphasizes the practical nature of diagnosing a disease, including which tests should be done for the diagnosis of diabetes mellitus in adults and children, which genes should be evaluated for subjects with congenital hypothyroidism, which genetic tests should be ordered in obese patients or for those with parathyroid carcinoma, and the rationale behind testing for multiple endocrine neoplasias.

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# HUMAN PHYSIOLOGY, BIOCHEMISTRY AND BASIC MEDICINE

LAURENCE A. COLE, Ph.D.  
PETER R. KRAMER, Ph.D.



**ISBN:** 978-0-12-803699-0

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 236

## AUDIENCE

Medical researchers and graduate students of physiology

## Human Physiology, Biochemistry and Basic Medicine

**Laurence A. Cole** Professor of Obstetrics & Gynecology, Departments of Obstetrics & Gynecology and Biochemistry and Molecular Biology, University of New Mexico; Director, USA hCG Reference Service, Santa Fe, NM, USA

**Peter R. Kramer** Patent Analyst at Global Patent Solutions LLC



**This book provides a unique compilation of the physiology, anatomy, biochemistry, nutrition, and cell biology of humans, and includes coverage of human anatomy and physiology, human biochemistry, human basic medicine, the science of diseases, and human evolution.**

## KEY FEATURES

- Covers the physiology, anatomy, nutrition, biochemistry and cell biology of humans, showing how they are distinguished from other animals
- Includes medical literature and internet references, example test questions, and a list of pertinent words at the end of each chapter
- Provides unique perspective into all aspects of what makes up and controls humans

## DESCRIPTION

*Human Physiology, Biochemistry and Basic Medicine* is a unique perspective that draws together human biology, physiology, biochemistry, nutrition, and cell biology in one comprehensive volume.

In this way, it is uniquely qualified to address the needs of the emerging field of humanology, a holistic approach to understanding the biology of humans and how they are distinguished from other animals.

Coverage starts with human anatomy and physiology and the details of the workings of all parts of the male and female body. Next, coverage of human biochemistry and how sugars, fats, and amino acids are made and digested is discussed, as is human basic medicine, covering the science of diseases and human evolution and pseudo-evolution.

The book concludes with coverage of basic human nutrition, diseases, and treatments, and contains broad coverage that will give the reader an understanding of the entire human picture.

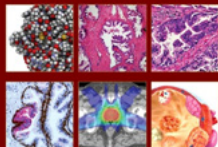
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SECOND EDITION  
**PROSTATE  
CANCER**  
Science and Clinical Practice



EDITED BY  
JACK H. MYDLO  
& CIRIL J. GODEC



**ISBN:** 978-0-12-800077-9

**PREVIOUS EDITION ISBN:**  
978-0-12-286981-5

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 652

**AUDIENCE**

Researchers and research clinicians in prostate cancer, urologists, oncologists, surgeons, radiologists and other specialists in cancer imaging

## Prostate Cancer, 2e

### *Science and Clinical Practice*

Edited by: **Jack H. Mydlo** Department of Urology, Temple University Hospital

**Ciril J. Godec** Department of Urology, Long Island College Hospital



**A translational reference on prostate cancer that bridges the gap from basic science to clinical analysis and new therapeutic approaches**

#### KEY FEATURES

- Presents a comprehensive, translational source for all aspects of prostate cancer in one reference work
- Provides a common language for cancer researchers, oncologists, and urologists to discuss prostate tumors and how prostate cancer metastases affects other major organ systems
- Offers insights to research clinicians, giving them a key understanding the molecular basis of prostate cancer
- Offers insights to cancer researchers into how clinical observations and practices can feed back into the research cycle and, therefore, can contribute to the development of more targeted genomic and proteomic assays

#### DESCRIPTION

*Prostate Cancer, Science and Clinical Practice, Second Edition*, continues to be an important translational reference that bridges the gap between science and clinical medicine. It reviews the biological processes that can be implicated in the disease, reviews current treatments, highlights the pitfalls where relevant, and examines the scientific developments that might result in future treatments.

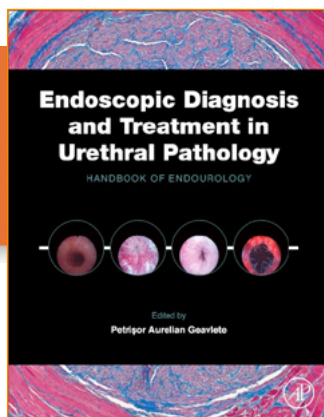
Key chapters from the previous edition have been updated, and a plethora of new chapters describe new concepts of prostate cancer biology and newly developed therapeutics. Each chapter has been written by internationally recognized specialists on prostate cancer epidemiology, genetic susceptibility, cancer metastases, prostate physiology, proteomics, new therapeutics, and clinical trials.

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**ISBN:** 978-0-12-802406-5

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 222

#### AUDIENCE

Fellows, residents, and practicing clinicians in urology, surgery, and internal medicine

## Endoscopic Diagnosis and Treatment in Urethral Pathology

### *Handbook of Endourology*

Edited by: *Petrisor Aurelian Geavlete* Faculty of Medicine, Department of Urology, University of Medicine and Pharmacy "Carol Davila" Bucharest, Bucharest, Romania



**Comprehensive clinical guides covering the latest techniques and technologies in endourology**

#### KEY FEATURES

- Offers review content for urologists in training and "refresher" content for experts in endourology
- Explores new surgical techniques and technology through review-level content and extensive images of pathologies
- Includes over 500 images per volume; images taken from more than 4000 endourologic procedures performed annually at the editor's hospital

#### DESCRIPTION

Handbook of Endourology contains five focused, review-oriented volumes that are ideal for students and clinicians looking for a comprehensive review rather than a whole course. Each volume is easily accessible through eBook format.

Topics covered review both the endourological diagnosis and treatment of prostate, urethral, urinary bladder, upper urinary tract, and renal pathology. All chapters describe the most recent techniques, review the latest results, and analyze the most modern technologies.

In the past ten years, the field of endourology has expanded beyond the urinary tract to include all urologic minimally invasive surgical procedures. Recent advancements in robotic and laparoscopic bladder surgery make this one of the fastest moving fields in medicine.

As current textbooks are too time-consuming for busy urologists or trainees who also need to learn other areas of urology, this collection provides quick references and over 4000 images that are appropriate for fellows as well as those teaching in the field.

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**ISBN:** 978-0-12-800571-2

**PREVIOUS EDITION ISBN:**  
978-0-12-375670-1

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 364

#### **AUDIENCE**

Academic, medical, and pharmaceutical researchers in bone biology, immunology, rheumatology, endocrinology, hematology, and periodontia

## **Osteoimmunology, 2e** ***Interactions of the Immune and Skeletal Systems***

Edited by: **Joseph Lorenzo** University of Connecticut Health Center, Farmington, CT, USA

**Mark Horowitz** Yale University School of Medicine, New Haven, CT, USA

**Yongwon Choi** University of Pennsylvania, Philadelphia, PA, USA

**Hiroshi Takayanagi** Tokyo Medical and Dental University, Tokyo, Japan

**Georg Schett** University of Erlangen-Nuremberg, Germany



**Comprehensive translational reference focusing on the interactions of bone and immune cells and their development into bone and immunological diseases**

#### **KEY FEATURES**

- Explains the intricate interaction between the immune system and bone
- Features detailed discussions of the key cellular and molecular mechanisms governing the homeostasis of the individual systems
- Facilitates greater understanding of osteoimmunologic networks, their environments, and how this understanding leads to better treatments for human diseases involving both systems

#### **DESCRIPTION**

*Osteoimmunology: Interactions of the Immune and Skeletal Systems, Second Edition*, explores the advancements that have been made in the field during the last 40 years, including valuable information on our understanding of the interactions between hematopoietic, immune, and bone cells, now known as the field of osteoimmunology.

This comprehensive work offers the most extensive summaries of research trends in the field and their translation into new therapeutics.

Early chapters deal with the development of osteoblasts, osteoclasts, hematopoietic stem cells, T and B-lymphocytes, and communications between these cellular elements, while later sections contain discussions of the signaling pathways by which RANKL influences osteoclast development and function. Subsequent chapters explore the effects that estrogen has on bone and the immune system, the development of pathologic conditions, and the growing research around osteoporosis, Paget's disease, the genetics of bone disease, and bone cancer metastasis.

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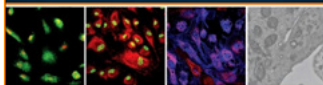
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# MESENCHYMAL STEM CELL DERIVED EXOSOMES

*The potential for  
translational nanomedicine*



EDITED BY  
Yaoliang Tang  
Buddhadeb Dawn



**ISBN:** 978-0-12-800164-6

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 274

## AUDIENCE

Biomedical and nano researchers and graduate students; stem cell biologists; cardiologists; chemist and pharmaceutical scientists using stem cells in drug development

## Mesenchymal Stem Cell Derived Exosomes

### *The Potential for Translational Nanomedicine*

**Yaoliang Tang** MD, Ph.D, FAHA, Vascular Biology Center & Department of Medicine, Medical College of Georgia, Georgia Regents University, Augusta, GA, USA

**Buddhadeb Dawn** MD, Department of Internal Medicine, Department of Biochemistry and Molecular Biology, Cardiovascular Research Institute, University of Kansas Medical Center, Kansas City, KS, USA



### Understanding the potential for MSC-derived exosomes in nano-based therapies

#### KEY FEATURES

- Introduces the MSC-exosome mediated cell-cell communication
- Covers the major functional benefits in current MSC-derived exosome studies
- Discusses strategies for the use of MSC-derived exosomes in cardiovascular therapies

#### DESCRIPTION

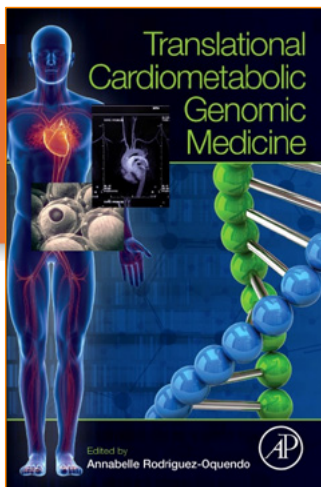
Mesenchymal stem cell-derived exosomes are at the forefront of research in two of the most high profile and funded scientific areas – cardiovascular research and stem cells. *Mesenchymal Stem Cell Derived Exosomes* provides insight into the biofunction and molecular mechanisms, practical tools for research, and a look toward the clinical applications of this exciting phenomenon which is emerging as an effective diagnostic. Primarily focused on the cardiovascular applications where there have been the greatest advancements toward the clinic, this is the first compendium for clinical and biomedical researchers who are interested in integrating MSC-derived exosomes as a diagnostic and therapeutic tool.

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**ISBN:** 978-0-12-799961-6

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 340

#### **AUDIENCE**

Postgraduate medical, dental, and graduate students, postdoctoral fellows, basic scientists, physician scientists in genomic medicine

## **Translational Cardiometabolic Genomic Medicine**

Edited by: **Annabelle Rodriguez-Oquendo** Professor of Cell Biology, Linda and David Roth Chair of Cardiovascular Research, Center for Vascular Biology, University of Connecticut Health Center, Farmington CT



**This book provides a comprehensive, cutting-edge resource for those who are interested in exploring genomic medicine and cardiometabolic diseases**

#### **KEY FEATURES**

- Provides comprehensive research on translational genomic medicine
- Explains state-of-the-art genome editing for stem cells and mouse models with significant relevance to human cardiometabolic disease
- Includes discussions on the functional effects of single nucleotide polymorphisms and cardiometabolic diseases, stratified by sex and race
- Encompasses a range of book chapters that highlight bioinformatic approaches to better understanding functionality of the noncoding regions of the human genome

#### **DESCRIPTION**

*Translational Cardiometabolic Genomic Medicine*, edited by Dr. Annabelle Rodriguez-Oquendo, is an important resource to postgraduate (medical, dental and graduate) students, postdoctoral fellows, basic scientists, and physician scientists seeking to understand and expand their knowledge base in the field of genomic medicine as it is applied to cardiometabolic diseases.

This handbook integrates cutting-edge experimental approaches such as chromatin immunoprecipitation paired end tagging (CHIA-PET), to population studies such as the Multi-Ethnic Study of Atherosclerosis.

It encompasses a range of book chapters that highlight bioinformatic approaches to better understanding functionality of the noncoding regions of the human genome to the use of molecular diagnostic testing in predicting increased risk of cardiovascular diseases. Where applicable, this reference also includes chapters related to therapeutic options specifically aligned to molecular targets.

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# Biostatistics for Medical and Biomedical Practitioners

Julien I.E. Hoffman



**ISBN:** 978-0-12-802387-7

**PUB DATE:** September 2015

**FORMAT:** Paperback

**PAGES:** c. 744

## AUDIENCE

professionals, graduate students  
and trainees across the biomedical  
sciences.

## Biostatistics for Medical and Biomedical Practitioners

**Julien I. E. Hoffman** Professor of Pediatrics, Emeritus, Senior Member of  
the Cardiovascular Research Institute, University of California, San  
Francisco, CA



Step by step “refresher” guide for practitioners and students on how to choose and perform the  
most common biostatistics procedures

### KEY FEATURES

- Discusses how to use the standard statistical tests in the biomedical field, as well as how to make statistical inferences (t test, ANOVA, regression etc.)
- Includes non-standards tests, including equivalence or non-inferiority testing, extreme value statistics, cross-over tests, and simple time series procedures such as the runs test and Cusums
- Introduces procedures such as multiple regression, Poisson regression, meta-analysis and resampling statistics, and provides references for further studies
- Presents a vast array of free on-line statistical testing tools which allow readers to practice the procedures learned

### DESCRIPTION

*Biostatistics for Practitioners: An Interpretative Guide for Medicine and Biology* deals with several aspects of statistics that are indispensable for researchers and students across the biomedical sciences.

The book features a step-by-step approach, focusing on standard statistical tests, as well as discussions of the most common errors.

The book is based on the author's 40+ years of teaching statistics to medical fellows and biomedical researchers across a wide range of fields. Readers will find hyperlinks to free online tests to help novice statisticians perform their own statistical tests.

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# DNA Methylation and Complex Human Disease

Translational Epigenetics Series



**ISBN:** 978-0-12-420194-1

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 536

## AUDIENCE

Basic biology and translational researchers above graduate level interested in developmental biology, genetics, health genomics, epigenesis in complex disease, and therapeutic possibilities

## DNA Methylation and Complex Human Disease

*Michel Neidhart* Center of Experimental Rheumatology, Centre for Clinical Research, University Hospital, Zurich, Switzerland



**This book describes the modifications of DNA methylation in various major human disease groups, including nonneoplastic diseases that could provide a rationale to develop novel therapeutic strategies such as the use of DNA methylation as a potential tool for determining cancer risk.**

### KEY FEATURES

- Discusses breaking biomarker research in major disease families of current health concern and research interest, including obesity, type II diabetes, schizophrenia, and autoimmunity
- Summarizes advances not only relevant to cancer, but also in non-neoplastic disease, currently an emerging field
- Describes wholly new concepts, including the linking of metabolic pathways with epigenetics
- Provides translational researchers with the knowledge of both basic research and clinic applications of DNA methylation in human diseases

### DESCRIPTION

*DNA Methylation and Complex Human Disease* reviews the possibilities of methyl-group-based epigenetic biomarkers of major diseases, tailored epigenetic therapies, and the future uses of high-throughput methylome technologies.

This volume includes many pertinent advances in disease-bearing research, including obesity, type II diabetes, schizophrenia, and autoimmunity. DNA methylation is also discussed as a plasma and serum test for non-invasive screening, diagnostic and prognostic tests, as compared to biopsy-driven gene expression analysis, factors which have led to the use of DNA methylation as a potential tool for determining cancer risk, and diagnosis between benign and malignant disease.

Therapies are at the heart of this volume and the possibilities of DNA demethylation. In cancer, unlike genetic mutations, DNA methylation and histone modifications are reversible and thus have shown great potential in the race for effective treatments. In addition, the authors present the importance of high-throughput methylome analysis, not only in cancer, but also in non-neoplastic diseases such as rheumatoid arthritis.

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## KIDNEY DEVELOPMENT DISEASE, REPAIR AND REGENERATION



Edited by  
MELISSA H. LITTLE



**ISBN:** 978-0-12-800102-8

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 596

### AUDIENCE

Researchers in renal disease, experimental and clinical nephrologists, developmental biologists, geneticists, bioengineers, and stem cell biologists

## Kidney Development, Disease, Repair and Regeneration

Edited by: **Melissa Helen Little** Professor, Group Leader, Kidney Research Laboratory, Murdoch Children's Research Institute and University of Melbourne, Victoria, Australia



**Broad coverage of renal development, from genetic and environmental regulation to kidney repair and regeneration**

### KEY FEATURES

- Offers researchers a single comprehensive resource written by leaders from both the developmental biology and the experimental nephrology communities
- Focuses on understanding the molecular basis of organogenesis in the kidney as well as how this can be affected both genetically and environmentally
- Explains the underlying developmental mechanisms which influence the kidney's inherent repair capacity
- Demonstrates how a deeper understanding of mechanisms will lead to greater advances in regenerative medicine

### DESCRIPTION

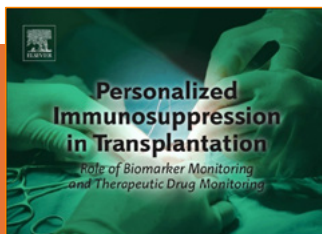
*Kidney Development, Disease, Repair and Regeneration* focuses on the molecular and cellular basis of kidney development, exploring the origins of kidney lineages, the development of kidney tissue subcompartments, as well as the genetic and environmental regulation of kidney development. Special coverage is given to kidney stem cells and possible steps towards kidney repair and regeneration. Emphasis is placed on the fetal origins of postnatal renal disease and our current understanding of the molecular basis of damage and repair. Biomedical researchers across experimental nephrology and developmental biology will find this a key reference for learning how the underlying developmental mechanisms of the kidney will lead to greater advances in regenerative medicine within nephrology.

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**ISBN:** 978-0-12-800885-0

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 302

#### **AUDIENCE**

Pathologists, clinical chemists, toxicologists, and transplant surgeons who are involved in the routine care of transplant patients; transplant nephrologists, gastroenterologists, cardiologists, pulmonary physicians and fellows in transplantation program and supervisors of toxicology or immunosuppressant monitoring laboratories.

## **Personalized Immunosuppression in Transplantation**

### ***Role of Biomarker Monitoring and Therapeutic Drug Monitoring***

Edited by: **Michael Oellerich** Lower Saxony Distinguished Professor of Clinical Chemistry, George-August University, University Medical Center Göttingen, Department of Clinical Pharmacology, Göttingen, Germany

**Amitava Dasgupta** Professor, Pathology and Laboratory Medicine, University of Texas Health Science Center, Houston, TX, USA



**In-depth coverage of managing immunosuppressant therapy in transplant patients with the goal of maximum benefit from drug therapy and minimal risk of drug toxicity**

#### **KEY FEATURES**

- Focuses on the personalized management of immunosuppression therapy in individual transplant patients
- Presents information that applies to many areas, including mass spectrometry, assay design, assay validation, clinical chemistry, and clinical pathology
- Provides practical guidelines for the initial selection and subsequent modifications of immunosuppression therapy in individual transplant patients
- Reviews the latest research in biomarker monitoring in personalizing immunosuppressant therapy, including potential new markers not currently used, but with great potential for future use
- Explains how monitoring graft-derived, circulating, cell free DNA has shown promise in the early detection of transplant injury in liquid biopsy

#### **DESCRIPTION**

*Personalized Immunosuppression in Transplantation: Role of Biomarker Monitoring and Therapeutic Drug Monitoring* provides coverage of the various approaches to monitoring immunosuppressants in transplant patients, including the most recently developed biomarker monitoring methods, pharmacogenomics approaches, and traditional therapeutic drug monitoring.

The book is written for pathologists, toxicologists, and transplant surgeons who are involved in the management of transplant patients, offering them in-depth coverage of the management of immunosuppressant therapy in transplant patients with the goal of maximum benefit from drug therapy and minimal risk of drug toxicity.

This book also provides practical guidelines for managing immunosuppressant therapy, including the therapeutic ranges of various immunosuppressants, the pitfalls of methodologies used for determination of these immunosuppressants in whole blood or plasma, appropriate pharmacogenomics testing for organ transplant recipients, and when biomarker monitoring could be helpful.

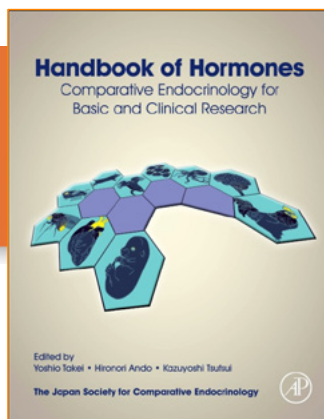
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**ISBN:** 978-0-12-801028-0

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 646

**AUDIENCE**

Biomedical and biological researchers in human, mammalian, comparative endocrinology, and biochemistry

## Handbook of Hormones

### *Comparative Endocrinology for Basic and Clinical Research*

Edited by: **Yoshio Takei** Professor, Laboratory of Physiology, Department of Marine Bioscience Atmosphere and Ocean Research Institute, The University of Tokyo, Chiba, Tokyo, Japan; **Hironori Ando** Sado Marine Biological Station, Faculty of Science, Niigata University, Japan; **Kazuyoshi Tsutsui** Laboratory of Integrative Brain Sciences, Department of Biology, Waseda University, Center for Medical Life Science of Waseda University, Japan



**The most comprehensive comparative resource on hormone structure, function and action across vertebrates and invertebrates.**

#### KEY FEATURES

- Provides the only single resource available with concise, yet informative descriptions of hormones in vertebrates, invertebrates, and plants
- Presents hormones in groups according to their origin, so that readers can easily understand their inter-relation
- Includes comparative information on the structures and functions of hormones enabling readers to understand both general and specific actions in and across species
- Ancillary website hosts additional information, including sequence data, comparative data, figures, and tables

#### DESCRIPTION

*Handbook of Hormones: Comparative Endocrinology for Basic and Clinical Research* collates fundamental information about the structure and function of hormones from basic biology to clinical use.

The handbook offers a rapid way to obtain specific facts about the chemical and molecular characteristics of hormones, their receptors and signalling pathways, and the biological activities they regulate.

The evolution of hormones and gene families is also covered both in the text and in online ancillaries.

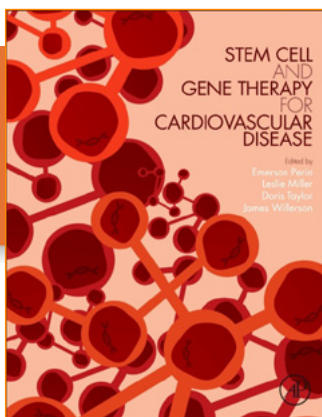
Users will find simple and visual ways to learn key molecular information. Chapters and online ancillary resources integrate additional sections, providing a comparative molecular, functional, and evolutionary consideration.

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**ISBN:** 978-0-12-801888-0

**PUB DATE:** August 2015

**FORMAT:** Paperback

**PAGES:** c. 516

**AUDIENCE**

Cardiology Researchers, Basic Science Clinicians, Cardiologists, fellows, residents, students, as well as industry

## Stem Cell and Gene Therapy for Cardiovascular Disease

Edited by: **Emerson C. Perin** Director, Clinical Research for Cardiovascular Medicine; Medical Director, Stem Cell Center, Texas Heart Institute; **Leslie W. Miller** Edward C. Wright Professor of Cardiovascular Medicine; Chair, Department of Cardiovascular Sciences, CEO of Cardiovascular Clinical Research, University of South Florida Health, Tampa, Florida; **Doris A. Taylor** MRC Scientist, MRC Biochemical and Clinical Magnetic Resonance Unit, John Radcliffe Hospital, Oxford; **James T. Willerson** President, University of Texas Health Sciences Center, Houston, TX, USA



**Provides a comprehensive reference on the status of all knowledge currently available in the field of stem cell and gene therapies for patients with heart failure**

### KEY FEATURES

- Provides information on stem and gene therapy medical trials from contributors and specialists around the world, including not only what has been completed, but also what is planned for future research and trials
- Presents topics that can be applied to allogeneic cells, mesenchymal cells, gene therapy, cardiomyocytes, iPS cells, MAPC's, and organogenesis
- Covers the three areas with the greatest clinical trials to date: chronic limb ischemia, chronic angina, and acute MI
- Covers the prevailing opinions on how to harness the body's natural repair mechanisms
- Ideal resource for cardiology researchers, basic science clinicians, fellows, residents, students, and industry professionals

### DESCRIPTION

*Stem Cell and Gene Therapy for Cardiovascular Disease* is a state-of-the-art reference that combines, in one place, the breadth and depth of information available on the topic.

As stem cell and gene therapies are the most cutting-edge therapies currently available for patients with heart failure, each section of the book provides information on medical trials from contributors and specialists from around the world, including not only what has been completed, but also what is planned for future research and trials.

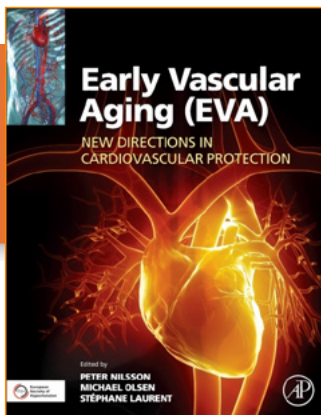
Cardiology researchers, basic science clinicians, fellows, residents, students, and industry professionals will find this book an invaluable resource for further study on the topic.

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**ISBN:** 978-0-12-801387-8

**PUB DATE:** August 2015

**FORMAT:** Hardback

**PAGES:** c. 364

**AUDIENCE**

Specialists and researchers of hypertension and cardiology, preventive cardiology, diabetology and internal and general medicine, geriatricians, physiologists and experts in image medicine

## Early Vascular Aging (EVA)

### *New Directions in Cardiovascular Protection*

Edited by: **Peter M Nilsson** Professor of Cardiovascular Research, consultant, Department of Clinical Sciences, Lund University

**Michael Hect Olsen** Professor, University of Southern Denmark and Odense University Hospital

**Stéphane Laurent** Head, Department of Clinical Pharmacology, Hôpital Européen Georges- Pompidou, Paris, France



**A comprehensive look at early vascular aging (EVA), its link to arterial stiffness, and other age-related changes in the vascular tree**

#### KEY FEATURES

- Introduces the latest information on early vascular aging (EVA), complete with summaries of recent evidence and guidelines for relevant risk factor control
- Ideal reference for the study of vascular aging, pulse wave velocity, arteriosclerosis, EVA, arterial stiffness, vascular, PWV biomarkers, and cardiovascular disease
- Contains all the relevant information available from different fields of knowledge (from basic biology to epidemiology) in regard to EVA
- Provides evidence that leads to a new target for interventions, early vascular aging (EVA) in subjects with early onset increased arterial stiffness
- Includes online access to a supplemental website with video clips of anatomic specimens, cardiac imaging, and surgical procedures

#### DESCRIPTION

*Early Vascular Aging (EVA): New Directions in Cardiovascular Protection* brings together the last decade of research related to the characterization of EVA, as well as the predictive power of pulse wave velocity (PWV).

The book presents a novel approach to the problem of cardiovascular disease, showing it in relation to great vessels disease and revealing a comprehensive approach to the problem of increased rigidity of the great vessels, its causes, and further consequences.

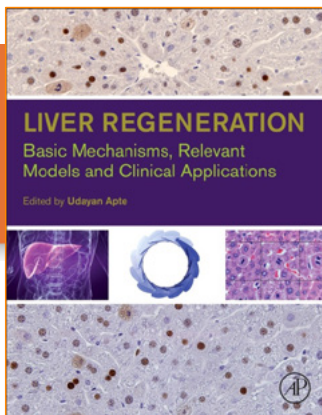
Information provided is accompanied by online access to a supplemental website with video clips of anatomic specimens, cardiac imaging, and surgical procedures.

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**ISBN:** 978-0-12-420128-6

**PUB DATE:** August 2015

**FORMAT:** Hardback

**PAGES:** c. 310

#### AUDIENCE

Researchers in the area of liver biology

## Liver Regeneration

### *Basic Mechanisms, Relevant Models and Clinical Applications*

Edited by: **Udayan M. Apte** Associate Professor, The University of Kansas Medical Center



**Cutting-edge information on current research into human liver regeneration, detailing standard scientific methods and forthcoming discoveries in the decades to come**

#### KEY FEATURES

- Summarizes current liver regeneration studies and discussions on expected discoveries
- Provides an overview of standard scientific and cutting-edge technologies to study liver regeneration
- Presents details on the molecular mechanisms that affect liver regeneration
- Highly illustrated, with hundreds of full-color, graphic photographs and illustrations to enhance the learning process

#### DESCRIPTION

*Liver Regeneration: Basic Mechanisms, Relevant Models and Clinical Applications* presents cutting-edge information on liver regeneration research through an integrated, systems-wide perspective. The book addresses discoveries on hepatic progenitor cells, liver regeneration after chemical damage, and liver regeneration as a prime therapy for liver failure and disease.

By addressing the urgent need for translating basic research findings into clinically relevant modalities and potential therapeutic applications, the book provides the data needed to improve liver patient management.

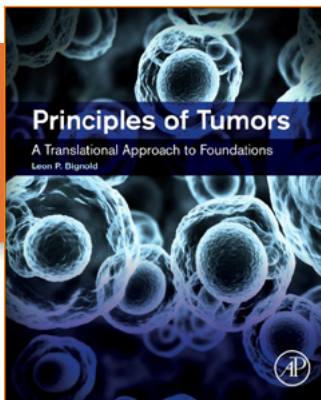
Hundreds of full-color, graphic photographs and illustrations underline key elements and show researchers and students important aspects of liver transplantation, immunofluorescence, and other techniques used in liver regeneration.

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**ISBN:** 978-0-12-801565-0

**PUB DATE:** August 2015

**FORMAT:** Paperback

**PAGES:** c. 458

**AUDIENCE**

Early researchers in all areas of tumour practice, research, epidemiology and related disciplines, established practitioners and researchers in tumours, oncologists

## Principles of Tumors

**Leon P Bignold** Senior Consultant Histopathologist, SA Pathology, Adelaide, and Clinical Senior Lecturer, Discipline of Pathology, University of Adelaide, Australia



**Covers all the fundamental aspects of tumors -- their definitions, incidences, causes, pathogenesis, treatments, and prevention**

### KEY FEATURES

- Integrates both cell mechanisms and tumor physiopathology
- Brings together research and perspectives from basic biological sciences, pathology, oncology, and epidemiology, providing an all-inclusive text
- Provides a concise tumor reference for the tumor researcher and oncologist
- Includes appendices for foundational material
- Brings out the cell detail of tumors

### DESCRIPTION

*Principles of Tumors* covers all of the fundamental aspects of tumors, including their definitions, incidences, causation, pathogenesis, treatments, and prevention. The book provides a unique approach, integrating a wide range of basic bioscience findings with clinico-pathological observations and phenomena encountered in their treatment.

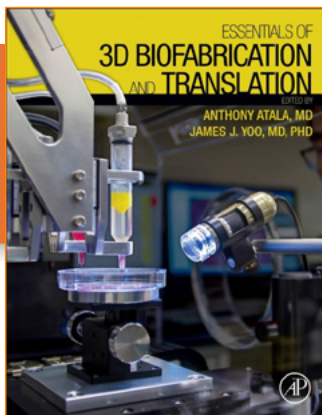
As tumors are studied in fairly separate, broad areas, such as basic biological sciences, pathology, oncology, and epidemiology, this book brings together these perspectives, providing an all-inclusive text that benefits all researchers, while also providing an avenue for translational research.

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**ISBN:** 978-0-12-800972-7

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 422

#### AUDIENCE

biomedical and bioengineering researchers working in different phases of the development of regenerative medicine tools including cell banking, stem cells and cell therapy, biomaterials, and tissue engineering; and scientific administrators and grad students in biotechnology fields

## Essentials of 3D Biofabrication and Translation

**Anthony Atala** Department of Urology, Wake Forest University, Winston-Salem, NC

**James J Yoo** Professor, Wake Forest Institute for Regenerative Medicine, Winston-Salem, NC



**Leaders in regenerative science and engineering discuss the translational medical applications of the revolutionary field of biofabrication**

#### KEY FEATURES

- Provides a new and versatile method to fabricating living tissue
- Discusses future applications for 3D bioprinting technologies, including use in the cardiac, skeletal, and nervous systems, and organ construction
- Describes current approaches and future challenges for translational science
- Runs the gamut of topics related to the subject, from hydrogels and polymers to nanotechnology, toxicity testing, and drug screening platforms

#### DESCRIPTION

*Essentials of 3D Biofabrication and Translation* discusses the techniques that are making bioprinting a viable alternative in regenerative medicine.

The book runs the gamut of topics related to the subject, including hydrogels and polymers, nanotechnology, toxicity testing, and drug screening platforms, also introducing current applications in the cardiac, skeletal, and nervous systems, and organ construction.

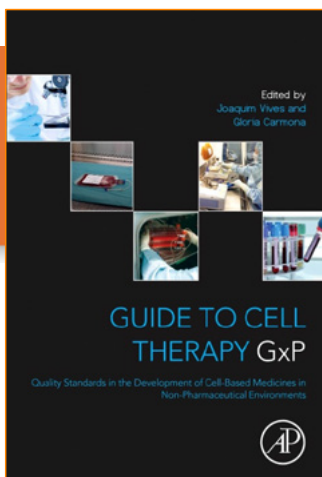
Leaders in clinical medicine and translational science provide a global perspective of the transformative nature of this field, including the use of cells, biomaterials, and macromolecules to create basic building blocks of tissues and organs, all of which are driving the field of biofabrication to transform regenerative medicine.

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**ISBN:** 978-0-12-803115-5

**PUB DATE:** July 2015

**FORMAT:** Paperback

**PAGES:** c. 258

#### **AUDIENCE**

biomedical researchers; stem cell biologists; regenerative medicine researchers; clinical researchers and students in various medical areas using stem cells in their research.

## **Guide to Cell Therapy GxP**

### ***Quality Standards in the Development of Cell-Based Medicines in Non-pharmaceutical Environments***

**Joaquim Vives** R&D Director, XCELIA, Banc de Sang I Teixits, Barcelona, Spain; **Gloria Carmona** Quality Assessment and GMP facilities Manager, Andalusian Initiative for Advanced Therapies, Consejería de Salud, Junta de Andalucía, Sevilla, Spain



**This book provides the quality standards used in the development of stem cell-based medicines in non-pharmaceutical environments, and includes all information that should be used in investigational medicinal product dossier (IMPD), the launching point for any clinical investigation.**

#### **KEY FEATURES**

- Easy access to important information on current regulations, state-of-the-art techniques, and recent advances otherwise scattered on various funding websites, within conference proceedings, or maintained in local knowledge.
- Features protocols, techniques for trouble-shooting common problems, and an explanation of the advantages and limitations of a technique in generating conclusive data.
- Includes practical examples of successful implementation of quality standards.

#### **DESCRIPTION**

*Guide to Cell Therapy GxP* is a practical guide to the implementation of quality assurance systems for the successful performance of all cell-based clinical trials. The book covers all information that needs to be included in investigational medicinal product dossier (IMPD), the launching point for any clinical investigation, and beyond. *Guide to Cell Therapy GxP* bridges a knowledge gap with the inclusion of examples of design of GLP-compliant preclinical studies; design of bioprocesses for autologous/allogeneic therapies; and instruction on how to implement GLP/GMP standards in centers accredited with other quality assurance standards. *Guide to Cell Therapy GxP* is an essential resource for scientists and researchers in hospitals, transfusion centers, tissue banks, and other research institutes who may not be familiar with the good scientific practice regulations that were originally designed for product development in corporate environments. This book is also a thorough resource for PhD students, Post-docs, Principal Investigators, Quality Assurance Units, and Government Inspectors who want to learn more about how quality standards are implemented in public institutions developing cell-based products.

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**ISBN:** 978-0-12-803482-8

**PUB DATE:** July 2015

**FORMAT:** Paperback

**PAGES:** c. 92

#### **AUDIENCE**

Perinatal medical and public health providers, professionals, administrators and organizations interested in an innovative approach to improve perinatal outcomes by reducing preterm births; communities affected by high rates of preterm births that are motivated and organized to generate change

## **Healthy Babies Are Worth The Wait**

*A Partnership to Reduce Preterm Births in Kentucky through Community-based Interventions 2007 - 2009*

Edited by: **Edward R.B. McCabe** Senior Vice President & Chief Medical Officer, March of Dimes Foundation



**An overview of preterm birth in the United States, and the design, implementation, evaluation, and outcomes of the Healthy Babies Are Worth the Wait initiative**

#### **KEY FEATURES**

- Provides readers with an overview of the problem of preterm birth in the US
- Describes in detail the design, implementation, evaluation, and outcomes of the Healthy Babies Are Worth the Wait® initiative conducted in Kentucky between 2007-2009
- Includes a unique research approach employing a mixed ecological design to evaluate outcomes

#### **DESCRIPTION**

*Healthy Babies Are Worth the Wait®: A Collaborative Partnership to Reduce Preterm Births in Kentucky through Community-based Interventions 2007 – 2009* provides readers with an overview of the problem of preterm birth in the US, also describing in detail the design, implementation, evaluation, and outcomes of the Healthy Babies Are Worth the Wait initiative conducted in Kentucky between 2007 and 2009.

The reader will learn about a unique research approach employing a mixed ecologic design that compared outcomes between intervention sites and comparison sites and the use of qualitative surveys and quantitative methods using state vital records data to evaluate outcomes.

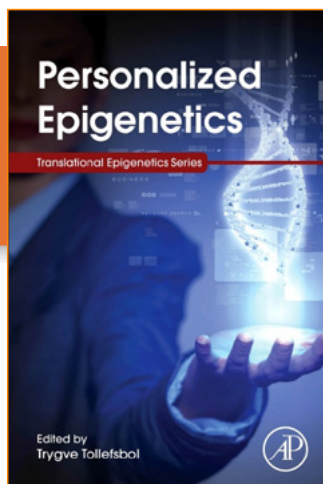
Consumer messaging and educational materials are discussed, along with the challenges of implementation and key lessons learned.

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**ISBN:** 978-0-12-420135-4

**PUB DATE:** July 2015

**FORMAT:** Hardback

**PAGES:** c. 592

**AUDIENCE**

Advanced undergraduate students, graduate students, health care professionals, university researchers, and pharmaceutical and biotechnology companies interested in drug development. This book could also serve as a core textbook for advanced university or professional school courses with a focus on genetic and/or human diseases

## Personalized Epigenetics

Edited by: **Trygve Tollefsbol** Professor of Biology, University of Alabama at Birmingham, AL, USA



**Comprehensively analyzes the radical prospects – and real-world limitations – of molecularly tailored approaches to stratified and personalized epigenomic medicine**

### KEY FEATURES

- Discusses the core translatability of epigenetics to health management of individuals who have unique variations in their epigenetic signatures
- Details inter-individual variability in the major epigenetic process in humans consisting of DNA methylation, histone modifications, and noncoding RNA, and the consequent diagnostic, prognostic and therapeutic potential of the field
- Reviews the impact of the environment on epigenetic variations among individuals and the roles of pharmacology and drug development
- Devotes several chapters to the advances made in widespread disorders or diseases, including diabetes, cancer, autoimmune disorders, obesity, cardiovascular diseases, neurological disorders, and pain management

### DESCRIPTION

*Personalized Epigenetics* discusses the core translatability of epigenetics to health management of individuals who have unique variations in their epigenetic signatures that can guide both disorder and disease prevention and therapy.

The book details inter-individual variability in the major epigenetic process in humans consisting of DNA methylation, histone modifications, and noncoding RNA, and the diagnostic, prognostic, and therapeutic potential of the field, it also reviews the impact of the environment on epigenetic variations among individuals and the role of pharmacology and drug development in personalized epigenetics.

Most importantly, the text covers personalized epigenetics from a disease-oriented perspective, presenting chapters that provide advances in widespread disorders or diseases, including diabetes, cancer, autoimmune disorders, obesity, cardiovascular diseases, neurological disorders, and pain management.

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# Back to Basics in Physiology

O<sub>2</sub> and CO<sub>2</sub> in the Respiratory and Cardiovascular Systems

Juan Pablo Arroyo  
Adam J. Schweickert



**ISBN:** 978-0-12-801768-5

**PUB DATE:** June 2015

**FORMAT:** Paperback

**PAGES:** c. 164

## AUDIENCE

physiology students, including graduate and undergraduate physiology students, nursing students, physician associate students, and medical students

## Back to Basics in Physiology

### *O<sub>2</sub> and CO<sub>2</sub> in the Respiratory and Cardiovascular Systems*

**Juan Pablo Arroyo** Postdoctoral Research Fellow, Howard Hughes Medical Institute, Department of Genetics, Yale University School of Medicine, New Haven, CT, USA

**Adam J. Schweickert** Attending Physician — Pediatric ICU, St. Barnabas Medical Center, West Orange, NJ, USA



**Exploits the gap that exists in current physiology books, tackling a variety of specific problems and evaluating their repercussions on systemic physiology**

## KEY FEATURES

- Exploits the gap that exists in current physiology books, tackling specific problems and evaluating their repercussions on systemic physiology
- Provides a bridge for the basic understanding of science and its direct translation to the clinical setting
- Interspersed with clinical correlates and key facts, highlighting direct patient care issues to help improve understanding and retention
- Ideal physiology reference for physiology students, including graduate and undergraduate students, nursing students, physician associate students, and medical students

## DESCRIPTION

*Back to Basics in Physiology: O<sub>2</sub> and CO<sub>2</sub> in the Respiratory and Cardiovascular Systems* exploits the gap that exists in current physiology books, tackling specific problems and evaluating their repercussions on systemic physiology.

It is part of a group of books that seek to provide a bridge for the basic understanding of science and its direct translation to the clinical setting, with a final aim of helping readers further comprehend the basic science behind clinical observations.

The book is interspersed with clinical correlates and key facts, as the authors believe that highlighting direct patient care issues leads to improved understanding and retention.

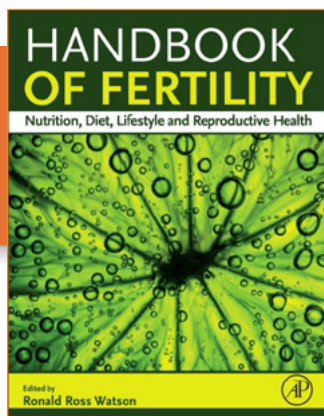
Physiology students, including graduate and undergraduate students, nursing students, physician associate students, and medical students will find this to be a great reference tool as part of an introductory course, or as review material.

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**ISBN:** 978-0-12-800872-0

**PUB DATE:** April 2015

**FORMAT:** Hardback

**PAGES:** c. 436

**AUDIENCE**

Researchers and graduate students in nutrition, diet, reproductive biology, and reproductive endocrinology

## Handbook of Fertility

### *Nutrition, Diet, Lifestyle and Reproductive Health*

Edited by: **Ronald Ross Watson** Health Promotion Sciences Department, Mel and Enid Zuckerman College of Public Health, and School of Medicine, University of Arizona, Tucson, AZ, USA



**Valuable resource for nutrition and fertility researchers on the foods, dietary supplements, and toxic agents that affect fertility and reproductive health**

#### KEY FEATURES

- Explores how alcohol, nicotine, and other drugs of abuse disrupt and impair reproductive health
- Reviews studies of common conditions such as obesity and metabolic syndrome and their effect on fertility and reproductive health
- Investigates the components of foods and dietary supplements, in particular oxidative stress and antioxidants
- Presents the nutritional effects of foods and dietary supplements and their benefits and risks relating to reproductive health

#### DESCRIPTION

*Handbook of Fertility: Nutrition, Diet, Lifestyle and Reproductive Health* focuses on the ways in which food, dietary supplements, and toxic agents, including alcohol and nicotine affect the reproductive health of both women and men.

Researchers in nutrition, diet, epidemiology, and endocrinology will find this comprehensive resource invaluable in their long-term goal of understanding and improving reproductive health.

This book brings together a broad range of experts researching the different aspects of foods and dietary supplements that promote or detract from reproductive health.

Section One contains several overview chapters on fertility, how it is assessed, and how it can be affected by different metabolic states, nutritional habits, dietary supplements, the action of antioxidants, and lifestyle choices. Sections Two and Three consider how male and female fertility are affected by obesity, metabolic syndrome, hormonal imbalance, and even bariatric surgery.

Section Four explores the ways diet, nutrition, and lifestyle support or retard the success of in vitro fertilization, while Section Five explores how alcohol and other drugs of abuse lower fertility in both women and men.

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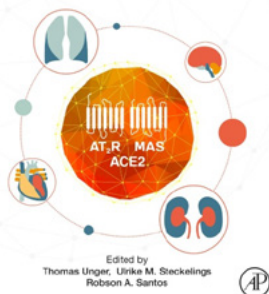
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## The Protective Arm of the Renin Angiotensin System

Functional Aspects and Therapeutic Implications



ISBN: 978-0-12-801364-9

PUB DATE: April 2015

FORMAT: Paperback

PAGES: c. 302

### AUDIENCE

Cardiology researchers,  
Cardiologists, Surgeons,  
Nephrologists, Diabetologists, and  
Endocrinologists

## The Protective Arm of the Renin Angiotensin System (RAS)

### Functional Aspects and Therapeutic Implications

Edited by: **Thomas Unger** MD, PhD, Professor & Scientific Director, CARIM School for Cardiovascular Diseases, Maastricht University, The Netherlands

**U. Muscha Steckelings** MD, PhD, Associate Professor, Institute of Molecular Medicine, University of Southern Denmark, Odense, Denmark

**Robson Augusto Souza dos Santos** MD, PhD, Professor, Federal University of Minas Gerais, Minas Gerais, Brazil



**A first of its kind reference to comprehensively describe the newly discovered protective side of the Renin Angiotensin System (RAS)**

### KEY FEATURES

- Provides a complete understanding of the protective side of the Renin Angiotensin System (RAS) involving angiotensin AT<sub>2</sub> receptor, ACE<sub>2</sub>, and Ang(1-7)/Mas receptor
- Combines the knowledge of editors who pioneered research on the protective renin angiotensin system including; Dr. Thomas Unger, one of the founders of AT<sub>2</sub> receptor research; Dr. Ulrike M. Steckelings, who contributed significantly to first preclinical studies with a novel specific AT<sub>2</sub>-agonist, and Dr. Robson Santos who pioneered research on angiotensin-(1-7) and its receptor Mas.
- Shows that the protective RAS axes are able to ameliorate the course of several cardiovascular, renal, metabolic and neurological diseases
- Provides the basis for the understanding of a novel therapeutic approach to stimulate components of the protective arm of the RAS.

### DESCRIPTION

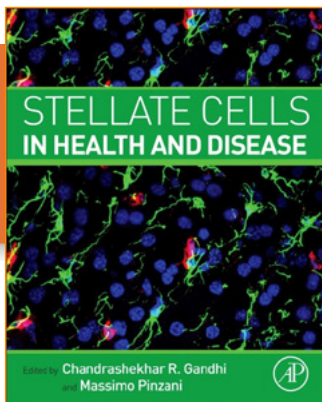
**The Protective Arm of the Renin Angiotensin System: Functional Aspects and Therapeutic Implications** is the first comprehensive publication to signal the protective role of a distinct part of the renin–angiotensin system (RAS), providing readers with early insight into a complex system which will become of major medical importance in the near future. Focusing on recent research, *The Protective Arm of the Renin Angiotensin System* presents a host of new experimental studies on specific components of the RAS, namely angiotensin AT<sub>2</sub> receptors (AT<sub>2</sub>R), the angiotensin (1–7) peptide with its receptor Mas, and the enzyme ACE 2, which exert significant beneficial, health-promoting actions by counterbalancing the well-known harmful arm of the RAS with its classical angiotensin AT<sub>1</sub> receptor. This innovative concept of the protective arm of the RAS, examined in this reference, represents an indispensable background and will be a strong support for biomedical students, researchers, cardiologists, surgeons, nephrologists, diabetologists, and endocrinologists, as well as any other physician or researcher concerned with RAS physiology, pathophysiology and clinical implications.

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**ISBN:** 978-0-12-800134-9

**PUB DATE:** April 2015

**FORMAT:** Hardback

**PAGES:** c. 328

**AUDIENCE**

Basic and clinical researchers of gastroenterology, as well as hepatologists and practicing gastroenterologists.

## Stellate Cells in Health and Disease

Edited by: **Chandrashekhhar Gandhi** Cincinnati Children's Hospital Medical Center and University of Cincinnati, Cincinnati, OH, USA  
**Massimo Pinzani** UCL Institute for Liver and Digestive Health, University College London, Royal Free Hospital Campus U3, UK



**Up-to-date knowledge and perspectives of the established and putative functions of stellate cells in various pathophysiological conditions that affect the structure and functions of the liver**

### KEY FEATURES

- Presents coverage of the mechanisms of liver fibrosis with stellate cells as a target for therapy.
- Shows stellate cells as a major participant in hepatic immunobiology, including transplantation immunology.
- Key illustrations show the phenotypical changes in stellate cells in situ and tissue culture, their interactions with other cell types, signaling pathways and demonstrate the functions and roles of stellate cell in pathological processes.

### DESCRIPTION

*Stellate Cells in Health and Disease* is a comprehensive reference providing the most up-to-date knowledge and perspectives on the function of stellate cells affecting the liver and other organs.

The text presents comprehensive coverage of their already established role in hepatic fibrosis along with the newer emerging evidence for stellate cell participation in the liver cell (hepatocyte) survival and regeneration, hepatic immunobiology, transplant tolerance, and liver cancer.

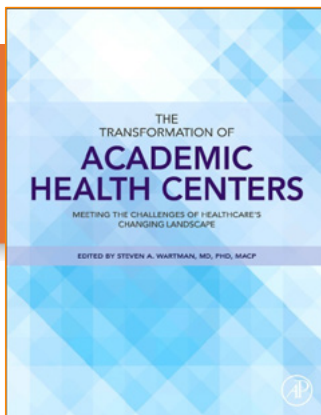
Chapters describe both animal and human research and the relevance of findings from animal research to human pathophysiology, and also contain sections on future directions which will be of special interest to basic and clinical researchers working on liver fibrosis, hepatic biology, and pathobiology.

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**ISBN:** 978-0-12-800762-4

**PUB DATE:** April 2015

**FORMAT:** Hardback

**PAGES:** c. 268

**AUDIENCE**

healthcare delivery practitioners and researchers affiliated with academic health centers; professional educators; health center administrators; health professions associations; and academic institutional leadership generally

## The Transformation of Academic Health Centers

*Meeting the Challenges of Healthcare's Changing Landscape*

Steven Wartman President/ CEO, Association of Academic Health Centers, Washington, DC, USA



**Provides valuable insights and leadership perspectives on the evolving role of academic health centers and how they can be successful in the changing landscape of healthcare.**

"Common threads that run throughout the book are collaboration, integration, interdisciplinary approaches, and, of course, transformation...an excellent reference for academic health centers seeking to learn from the experiences of other academic health centers. Score: 88 - 3 Stars"--

**Doody's, *The Transformation of Academic Health Centers***

### KEY FEATURES

- Outlines strategies for academic health centers to successfully adapt to the global changes in healthcare and delivery
- Offers forward-thinking and compelling professional and personal assessments of the evolving role of academic health centers by recognized outstanding academic healthcare leaders
- Includes case studies and personal reflections, providing lessons learned and new recommendations to challenge leaders
- Provides discussions on the discovery process, improving funding models, and research efficiency

### DESCRIPTION

*The Transformation of Academic Health Centers: The Institutional Challenge to Improve Health and Well-Being in Healthcare's Changing Landscape* presents the direct knowledge and vision of accomplished academic leaders whose unique positions as managers of some of the most complex academic and business enterprises make them expert contributors.

Users will find invaluable insights and leadership perspectives on healthcare, health professions education, and bio-medical and clinical research that systematically explores the evolving role of global academic health centers with an eye focused on the transformation necessary to be successful in challenging environments.

The book is divided into five sections moving from the broad perspective of the role of academic health centers to the role of education, training, and disruptive technologies. It then addresses the discovery processes, improving funding models, and research efficiency. Subsequent sections address the coming changes in healthcare delivery and future perspectives, providing a complete picture of the needs of the growing and influential healthcare sector.

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# Principles of Translational Science in Medicine

From Bench to Bedside

Edited by  
MARTIN WEHLING

Second Edition



ISBN: 978-0-12-800687-0

PREVIOUS EDITION ISBN:  
9780521888691

PUB DATE: April 2015

FORMAT: Hardback

PAGES: c. 350

## AUDIENCE

Biomedical researchers working on  
preclinical and clinical studies

## Principles of Translational Science in Medicine, 2e

### From Bench to Bedside

Edited by: **Martin Wehling** Managing Director, Institute of Experimental and Clinical Pharmacology and Toxicology, Director, Clinical Pharmacology, Mannheim Medical Faculty, Mannheim University of Heidelberg, Mannheim, Germany



**The principles, tools, and algorithms of translational science in medicine, plus an update on major achievements in translating research into medically relevant therapies**

"This is an easy to read resource for biomedical scientists interested in the current and evolving approach to integrating various scientific approaches to answer questions important for the diagnosis and treatment of human disease. Score: 86 - 3 Stars"--**Doody's, Principles of Translational Science in Medicine, Second Edition**

## KEY FEATURES

- Provides an in-depth description of novel tools for the assessment of translatability of trials to balance risk and improve projects at any given stage of product development
- New chapters deal with translational issues in the fastest growing population (the elderly), case studies, translatability assessment tools, and advances in nanotherapies
- Details IPR issues of translation, especially for public-private-partnerships
- Contains contributions from world leaders in translational medicine, including the former NIH director and authorities from various European regulatory institutions

## DESCRIPTION

*Principles of Translational Science in Medicine: From Bench to Bedside, Second Edition*, provides an update on major achievements in the translation of research into medically relevant results and therapeutics.

The book presents a thorough discussion of biomarkers, early human trials, and networking models, and includes institutional and industrial support systems. It also covers algorithms that have influenced all major areas of biomedical research in recent years, resulting in an increasing numbers of new chemical/biological entities (NCEs or NBEs) as shown in FDA statistics.

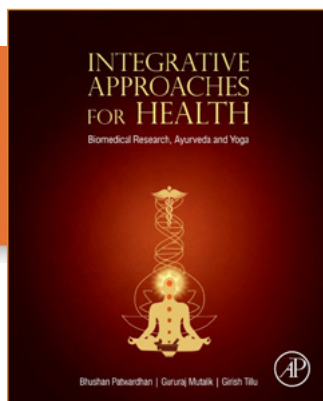
The book is ideal for use as a guide for biomedical scientists to establish a systematic approach to translational medicine.

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**ISBN:** 978-0-12-801282-6

**PUB DATE:** April 2015

**FORMAT:** Paperback

**PAGES:** c. 358

**AUDIENCE**

biomedical scientists having active interest in innovative and integrative approaches in health and medicine

## Integrative Approaches for Health Biomedical Research, Ayurveda and Yoga

*Bhushan Patwardhan* MSc, PhD, Professor and Director, Interdisciplinary School of Health Sciences, University of Pune, Pune, India; *Gururaj Mutalik* MD, Formerly, Dean and Professor of Medicine, Byramjee Jeejeebhoy Medical College, Pune, India, Postdoctoral fellow in human genetics at Johns Hopkins University School of Medicine, Baltimore, MD, Director of the World Health Organization at the United Nations, New York, NY, USA; *Girish Tiliu* MD, Vaidya Scientist Fellow, Interdisciplinary School of Health Sciences, Savitribai Phule Pune University, Pune, India



**Merges ancient and modern sciences to develop new health and medicine concepts for cutting edge biomedical research, integrative medicine and the future of healthcare**

### KEY FEATURES

- Contains a harmonious confluence of ancient and modern concepts, historical perspectives, philosophical underpinnings, and a relevant review of literature supported by worldwide case studies.
- Provides a critical analysis of ancient wisdom, pointing to potential areas for future research, which provide food for thought for public debate on integrative health care for the twenty-first century.
- Explains Ayurveda knowledge, and its relevance to drug discovery, nutrition, genomics, epigenetics, regenerative biology, longevity and personalized medicine.
- Shares Yoga knowledge insights, and explains its relevance to body–mind complex relationships, psychology, neurobiology, immunoendocrinology, bioenergetics, consciousness, and cognitive sciences.
- Offers illustrations and logic diagrams for enhanced understanding of the concepts presented.

### DESCRIPTION

Despite spectacular advances, modern medicine faces formidable global challenges in several key areas—notably the persistence of major killer diseases such as malaria, tuberculosis, leprosy, and newer threats including HIV/AIDS, resistant infections, and Ebola. As such, modern medicine has not led to a significant decrease in chronic diseases like diabetes, obesity, and other degenerative and autoimmune diseases. The authors believe that modern medicine needs to experience a paradigm shift, an integration of traditions—in particular from the ancient systems like Ayurveda and Yoga.

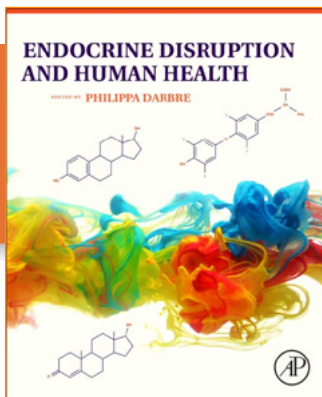
**Integrative Approaches for Health: Biomedical Research, Ayurveda and Yoga** brings together the basic principles of interdisciplinary systems approach for an evolving construct of future medicine. Such an approach is already emerging at the cutting edge of current research in omics, bioinformatics, computational and systems biology. Several leading institutions of medicine have adopted Yoga and complementary medicine to widen their reach, and deepen effectiveness in therapeutic practices. The amalgam of modern medicine, with its strengths in scientific rigor, blended with the basic principles of life drawn from Ayurveda and Yoga might evolve into a medicine of tomorrow. Integrative approaches are no longer alternative, perhaps taking these approaches is the only possible way to heal our sick planet. This book introduces important trends and tools for biomedical researchers and physicians alike, to innovate the practice of medicine for the better.

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**ISBN:** 978-0-12-801139-3

**PUB DATE:** March 2015

**FORMAT:** Hardback

**PAGES:** c. 378

**AUDIENCE**

Biomedical researchers and graduate students new to endocrine disruptors and the effects of endocrine disruption on human health, across the fields of toxicology, endocrinology, and cancer research

## Endocrine Disruption and Human Health

Edited by: *Philippa D. Darbre* Associate Professor of Oncology, School of Biological Sciences, University of Reading, Reading, England



**Introductory reference describing endocrine disruptors and their effects on human health, risk and regulation**

### KEY FEATURES

- Provides readers with access to a range of information from the basic mechanisms and assays to cutting-edge research investigating concerns for human health
- Presents a comprehensive, translational look at all aspects of endocrine disruption and its effects on human health
- Offers guidance on the risk assessment of endocrine disruptors and current relevant regulatory considerations

### DESCRIPTION

*Endocrine Disruption and Human Health* starts with an overview of what endocrine disruptors are, the issues surrounding them, and the source of these chemicals in the ecosystem. This is followed by an overview of the mechanisms of action and assay systems. The third section includes chapters written by specialists on different aspects of concern for the effects of endocrine disruption on human health. Finally, the authors consider the risk assessment of endocrine disruptors and the pertinent regulation developed by the EU, the US FDA, as well as REACH and NGOs. The book has been written for researchers and research clinicians interested in learning about the actions of endocrine disruptors and current evidence justifying concerns for human health but is useful for those approaching the subject for the first time, graduate students, and advanced undergraduate students.

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# Highlights of the Chinese Exposure Factors Handbook (Adults)

Xiaoli Duan  
Xiuge Zhao  
Beibei Wang  
Yiting Chen  
Suzhen Cao



**ISBN:** 978-0-12-803125-4

**PUB DATE:** March 2015

**FORMAT:** Paperback

**PAGES:** c. 70

## **AUDIENCE**

Risk assessors, scientists in  
environmental sciences, public  
health, environmental toxicology  
and environmental hygiene

## Highlights of the Chinese Exposure Factors Handbook

*Xiaoli Duan* Department of Environmental Health Sciences, Chinese  
Research Academy of Environmental Sciences, China



**The first and only reference book on the Chinese exposure factors in English**

### **KEY FEATURES**

- The first and only one covering Chinese exposure factors, which have been absent until now and are essential for the exposure and risk assessment of environmental agents
- Presents several tables on ingestion rates, as well as activity biology and residential factors based on data from a national survey
- Provides a brief but comprehensive understanding of the environmental exposure-related factors for the Chinese population

### **DESCRIPTION**

The Chinese Research Academy of Environmental Sciences (CRAES) has conducted the *Environmental exposure related activity pattern research of Chinese population (Adults)*. *Exposure Factors Handbook of Chinese Population (Adults)* was compiled based on the results from this study.

**Highlights of the Chinese Exposure Factors Handbook** is a brief introduction to the content of *Exposure Factors Handbook of Chinese Population (Adults)*. In each chapter, definitions, possible influence factors, and survey methods have been introduced, followed by recommended values for urban/rural areas, different genders, age groups and regions with information of mean, median and P5, P25, P75, P95 values.

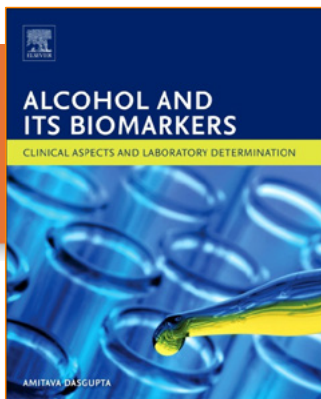
With the abundant data and tables, readers are provided with an accessible and comprehensive overview of Chinese exposure factors.

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**ISBN:** 978-0-12-800339-8

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 300

**AUDIENCE**

Residents and fellows in clinical pathology and clinical chemistry, practicing clinical pathologists and clinical chemists

## Alcohol and Its Biomarkers

*Clinical Aspects and Laboratory Determination*

**Amitava Dasgupta** Professor, Pathology and Laboratory Medicine,  
University of Texas Health Science Center, Houston, TX, USA



**Guide to all currently known alcohol biomarkers, their clinical application and the laboratory methods used to detect them**

"...a concise and well written book that delivers on its promise of presenting a comprehensive overview of alcohol and its biomarkers...a useful reference for health care professionals and laboratorians..."--**Lab Medicine, *Alcohol and Its Biomarkers***

"...a concise and well written book that delivers on its promise of presenting a comprehensive overview of alcohol and its biomarkers...a useful reference for health care professionals and laboratorians..."

*Lab Medicine*, Summer 2015

### KEY FEATURES

- Focuses on the analytical methods used for detecting alcohol in blood and urine along with the pitfalls and limitations of alcohol determination using enzymatic methods
- Explains the difference between clinical and forensic alcohol measurement
- Includes a brief overview of the benefits of consuming alcohol in moderation and the hazards of heavy drinking

### DESCRIPTION

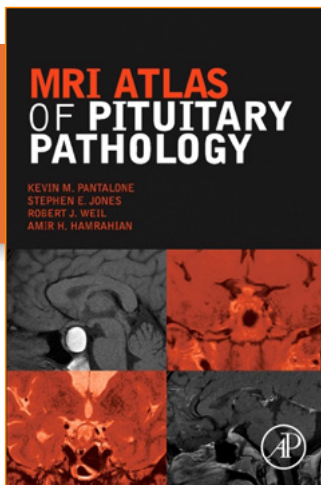
*Alcohol and Its Biomarkers: Clinical Aspects and Laboratory Determination* is a concise guide to all currently known alcohol biomarkers, their clinical application, and the laboratory methods used to detect them. Pathologists can use this resource to understand the limitations and cost factors associated with each method for determining certain alcohol biomarkers. In addition, interferences in these determinations are discussed, so that clinicians can understand the causes of falsely elevated biomarkers and pathologists and laboratory scientists can potentially eliminate them. The book focuses on the analytical methods used to detect alcohol in blood and urine, the limitations of alcohol determination using enzymatic methods, and the differences between clinical and forensic alcohol measurement. Chapters also cover cutting-edge alcohol biomarkers for potential use.

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**ISBN:** 978-0-12-802577-2

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 54

#### **AUDIENCE**

Fellows, Residents, Clinicians, and Clinical Researchers in endocrinology, neuro-endocrinology, internal medicine, and radiology

## **MRI Atlas of Pituitary Pathology**

**Kevin M. Pantalone** Associate Staff Clinician, Department of Endocrinology, Diabetes and Metabolism, Cleveland Clinic Foundation, Cleveland, OH, USA; **Stephen E. Jones** Staff Neuroradiologist, Department of Diagnostic Radiology, Cleveland Clinic Foundation, Cleveland, OH, USA; **Robert Weil** Department of Neurosurgery, Geisinger Health System; Chief Medical Executive, Northeast Region, Geisinger Health System; and System Associate Chief Scientific Officer, Geisinger Health System, Danville, PA, USA; **Amir H. Hamrahian** Director, Department of Endocrinology, Diabetes and Metabolism, Cleveland Clinic Foundation, Cleveland, OH, USA



**Concise teaching atlas featuring 160 high-resolution images of the most common to the rarest of disorders affecting the pituitary**

#### **KEY FEATURES**

- Provides readers with a simple, visual approach for the evaluation of pituitary images
- Features 160 high-resolution images of the most common to the rarest of disorders affecting the pituitary
- Serves an audience of fellows, residents, and clinicians in endocrinology, radiology, neurosurgery, and anyone involved in the multidisciplinary diagnosis of pituitary disease

#### **DESCRIPTION**

**MRI Atlas of Pituitary Imaging** focuses on magnetic resonance imaging (MRI), the imaging modality of choice for the evaluation of pituitary disorders, since it provides a detailed anatomy of the pituitary gland and surrounding structures, particularly the soft tissues. A basic understanding and interpretation of MRI is important for many clinicians outside of the field of radiology, especially endocrinologists who may receive limited formal training in such areas.

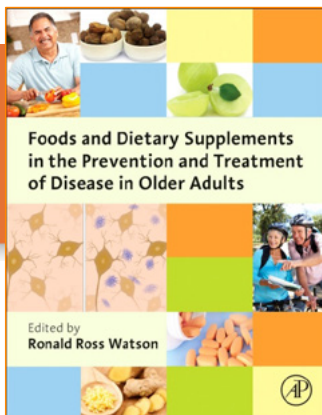
This concise **Atlas** includes a brief review of the principles of magnetic resonance imaging and then reinforces these principles by utilizing a case-based approach to review various pituitary pathologies. The **Atlas** serves as a strong clinical teaching aid for endocrinologists, radiologists, and neurosurgeons in training. It also serves as a great reference for physicians who are currently in practice.

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## Foods and Dietary Supplements in the Prevention and Treatment of Disease in Older Adults

Edited by  
Ronald Ross Watson

ISBN: 978-0-12-418680-4

PUB DATE: January 2015

FORMAT: Hardback

PAGES: c. 380

### AUDIENCE

Researchers and graduate students in nutrition, diet, epidemiology, and aging studies; practicing nutritionists and other healthcare professionals who treat aging adults

## Foods and Dietary Supplements in the Prevention and Treatment of Disease in Older Adults

Edited by: **Ronald Ross Watson** Health Promotion Sciences Department, Mel and Enid Zuckerman College of Public Health, and School of Medicine, University of Arizona, Tucson, AZ, USA



**Comprehensive resource for nutrition and disease researchers on the foods and dietary supplements that affect the major health problems of aging adults**

"...a great reference for clinicians working with older adults. Its concise, up-to-date review of research and benefits of herbs and supplements makes it essential for useful conversations that clinicians can have with patients using these products. Score: 80 - 3 Stars."--**Doody's, *Foods and Dietary Supplements in the Prevention and Treatment of Disease in Older Adults***

### KEY FEATURES

- Investigates the important nutritional requirements of the aging population in health and in relation to various acute and chronic diseases
- Explores the nutritional effects of botanical extracts and components that can have important health promotion benefits, and risks, to ensure safe consumption
- Reviews studies of common diseases within the aging population including cancer, cardiovascular, metabolic, and infectious diseases that can alter the intake of foods, supplements, and/or requirements for various nutrients
- Investigates the mechanisms of action of components of foods and dietary supplements, in particular gene activation and epigenetics

### DESCRIPTION

*Foods and Dietary Supplements in the Prevention and Treatment of Disease in Older Adults* focuses on the ways in which food and dietary supplements affect the major health problems of aging adults. Researchers in nutrition, diet, epidemiology, and aging studies, as well as healthcare providers who work with elderly patients will use this comprehensive resource as a tool in their long-term goal of preventing and treating chronic disease within the elderly.

This book brings together a broad range of experts working on the different aspects of foods and dietary supplements (vitamins, herbs, plant extracts, etc.) in health promotion and disease prevention. They have contributed chapters which define a range of ways in which foods, nutraceuticals, and dietary supplements prevent disease and promote health in older adults. They begin by reviewing the medicinal role of foods, herbal, and dietary supplements in health promotion in older adults, as well as some of the most commonly used supplements in elder "self-medication." They review the most recent studies of how foods, herbal, and dietary supplements are effective in the prevention and treatment of cancer, cardiovascular disease, diabetes, and other obesity associated diseases in older adults. Then they consider alcohol, other drugs, and plant based drugs of abuse which can adversely affect the health of older adults. Lastly, they consider foods and dietary supplements in gene regulation in older adults.

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## Hematology and Coagulation

### *A Comprehensive Review for Board Preparation, Certification and Clinical Practice*

**Amer Wahed** Professor of Pathology and Laboratory Medicine, University of Texas Health Sciences Center, Houston, TX, USA

**Amitava Dasgupta** Professor, Pathology and Laboratory Medicine, University of Texas Health Science Center, Houston, TX, USA



## Hematology and Coagulation

*A Comprehensive Review for Board Preparation, Certification and Clinical Practice*

Amer Wahed  
Amitava Dasgupta

**ISBN:** 978-0-12-800241-4

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 306

### AUDIENCE

Residents and fellows in pathology and clinical chemistry, practicing pathologists and clinical chemists

Easy-to-read hematopathology primer for medical residents, students, and clinicians

### KEY FEATURES

- Takes a practical and easy-to-read approach to understanding hematology and coagulation at an appropriate level for both board preparation as well as a professional refresher course
- Covers all important clinical information found in larger textbooks in a more succinct and easy-to-understand manner
- Covers essential concepts in hematopathology in such a way that fellows and clinicians understand the methods without having to become specialists in the field

### DESCRIPTION

*Hematology and Coagulation* is a clear and easy-to-read presentation of core topics and detailed case studies that illustrate the application of hematopathology knowledge to everyday patient care. In order to be successful, as well as to pass the American Board of Pathology examination, all pathology residents must have a good command of hematopathology, including the challenging topics of hematology and coagulation. *Hematology and Coagulation* meets this challenge head on.

This basic primer offers practical examples of how things function in the hematopathology clinic as well as useful lists, sample questions, and a bullet-point format ideal for quick pre-board review. This book provides only the most clinically relevant examples designed to educate senior medical students, residents and fellows and "refresh" the knowledge base, without overwhelming students, residents, and clinicians.

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# THE MANAGEMENT OF SCIENTIFIC INTEGRITY WITHIN ACADEMIC MEDICAL CENTERS

PETER J. SNYDER, LINDA C. MAYES  
WILLIAM E. SMITH



**ISBN:** 978-0-12-405198-0

**PUB DATE:** January 2015

**FORMAT:** Paperback

**PAGES:** c. 208

## AUDIENCE

Students/researchers interested in science and ethics, graduate students in public policy and in the biomedical sciences (across disciplines), faculty at academic medical centers, and those engaged in healthcare administration who must manage the oversight of scientific integrity. Psychologists and trainees as well.

## The Management of Scientific Integrity within Academic Medical Centers

**Peter Snyder** Lifespan Hospital System & Alpert Medical School of Brown University, Providence, RI, USA

**Linda C. Mayes** Yale University School of Medicine, New Haven, CT, USA

**William E. Smith** United States District Court, 1st Circuit, Providence, RI, USA



### How to identify and manage a misconduct case

#### KEY FEATURES

- Shows how complex most scientific integrity cases are, and how little is clear cut in the adjunction of each
- Discusses how timely and important scientific misconduct is, and its impact on science at large
- Reviews the current regulations and policies that guide how we manage scientific integrity
- Examines this complexity in 8 anonymous case studies
- Concludes with a section authored by an expertly qualified federal court judge

#### DESCRIPTION

*The Management of Scientific Integrity within Academic Medical Centers* discusses the impact scientific misconduct has in eight complex case studies. Authors look at multifaceted mixtures of improper behavior, poor communication, cultural issues, adverse medical/health issues, interpersonal problems and misunderstandings to illustrate the challenge of identifying and managing what went wrong and how current policies have led to the establishment of quasi legal processes within academic institutions. The book reviews the current global regulations and concludes with a section authored by a US federal court judge who provides his perspective on the adequacy of current regulations and policies.

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**ISBN:** 978-0-12-408077-5

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 416

#### **AUDIENCE**

Graduate students, professors, and clinical researchers and professionals whose work relates to fluid flow, heat transfer, and mass transport across the biological, biomedical sciences, and engineering fields.

## **Heat Transfer and Fluid Flow in Biological Processes**

Edited by: **Sid Becker** Director of Post Graduate Studies, University of Canterbury, Christchurch, New Zealand

**Andrey Kuznetsov** Professor of Mechanical Engineering, North Carolina State University, Raleigh, NC, USA



**A must-have compendium of the most current research and advances in heat transfer and fluid flow in biological systems and biomedical technology**

#### **KEY FEATURES**

- Provides a wide range of biological and clinical applications of fluid flow and heat transfer in biomedical technology
- Covers topics such as electrokinetic transport, electroporation of cells and tissue dialysis, inert solute transport (insulin), thermal ablation of cancerous tissue, respiratory therapies, and associated medical technologies
- Reviews the most recent advances in modeling techniques

#### **DESCRIPTION**

***Heat Transfer and Fluid Flow in Biological Processes*** covers emerging areas in fluid flow and heat transfer relevant to biosystems and medical technology. This book uses an interdisciplinary approach to provide a comprehensive prospective on biofluid mechanics and heat transfer advances and includes reviews of the most recent methods in modeling of flows in biological media, such as CFD. Written by internationally recognized researchers in the field, each chapter provides a strong introductory section that is useful to both readers currently in the field and readers interested in learning more about these areas.

***Heat Transfer and Fluid Flow in Biological Processes*** is an indispensable reference for professors, graduate students, professionals, and clinical researchers in the fields of biology, biomedical engineering, chemistry and medicine working on applications of fluid flow, heat transfer, and transport phenomena in biomedical technology.

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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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**PROFESSIONAL AND CAREER DEVELOPMENT**

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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

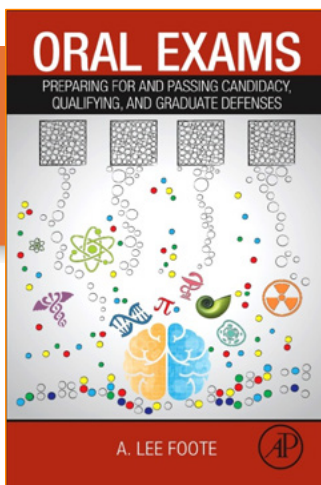
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#### PROFESSIONAL AND CAREER DEVELOPMENT

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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.

## LIFE SCIENCES

## PROFESSIONAL AND CAREER DEVELOPMENT

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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.

## LIFE SCIENCES

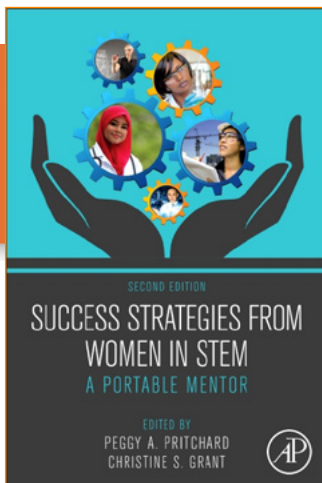
## PROFESSIONAL AND CAREER DEVELOPMENT

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**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

## 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**

#### 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.

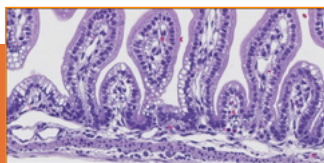
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**PROFESSIONAL AND CAREER DEVELOPMENT**

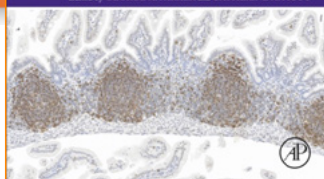
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*Atlas of Histology of the*  
**JUVENILE RAT**  
Edited by GEORGE A. PARKER and CATHERINE A. PICUT



**ISBN:** 978-0-12-802682-3

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 440

**AUDIENCE**

toxicologic pathologists,  
toxicologists, and other biological  
scientists who are interested in the  
histomorphology of juvenile rats

## Atlas of Histology of the Juvenile Rat

Edited by: **George A Parker** WIL Research Laboratories, LLC, Ashland, OH, USA

**Catherine A. Picut** WIL Research Laboratories, LLC, Ashland, OH, USA



**The definitive resource on the histomorphology of juvenile rats, including input from experienced board-certified toxicologic pathologists who cover organs typically sampled in nonclinical toxicology studies**

### KEY FEATURES

Written and edited by highly experienced, board-certified toxicologic pathologists

Includes more than 700 high-resolution microscopic images from organs that are typically examined in safety assessment toxicology studies

Detailed figure legends and chapter narratives present the salient features of each organ at each time interval

Figures are available for further study via Elsevier's Virtual Microscope, which allows viewing of microscopic images at higher magnification

Valuable resource for toxicologic pathologists who are confronted with interpretation of lesions in juvenile rats in situations where age-matched concurrent controls are not available for comparison, e.g., with unscheduled decedents

Figures are available for further study on ScienceDirect with Virtual Microscope, which allows viewing of microscopic images at higher magnification.

### DESCRIPTION

*Atlas of Histology of the Juvenile Rat* should be of interest to toxicologic pathologists, toxicologists, and other biological scientists who are interested in the histomorphology of juvenile rats. For several decades the laboratory rat has been used extensively in nonclinical toxicology studies designed to detect potential human toxicity of drugs, agrochemicals, industrial chemicals, and environmental hazards. These studies traditionally have involved young adult rats that are 8-10 weeks of age as studies are started. It is becoming increasingly apparent that children and young animals may have different responses to drug/chemical exposures, therefore, regulatory agencies are emphasizing toxicology studies in juvenile animals.

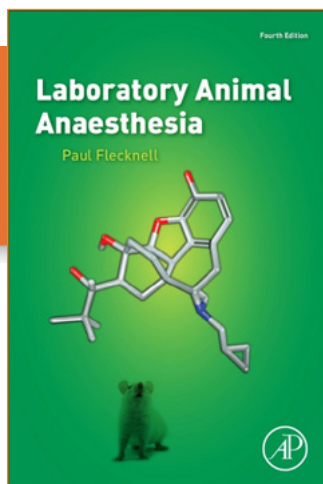
While the histologic features of organs from young adult and aged laboratory rats are well known, less is known about the histologic features of organs from juvenile rats. Final histologic maturity of many organs is achieved postnatally, thus immature histologic features must be distinguished from chemical- or drug-related effects. While this postnatal organ development is known to exist as a general concept, detailed information regarding postnatal histologic development is not readily available. The Atlas includes organs that are typically sampled in nonclinical toxicology studies and presents the histologic features at weekly intervals, starting at birth and extending through postnatal day 42.

**LIFE SCIENCES  
TOXICOLOGY**

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**ISBN:** 978-0-12-800036-6

**PREVIOUS EDITION ISBN:**  
978 0 12 369376 1

**PUB DATE:** October 2015

**FORMAT:** Hardback

**PAGES:** c. 322

**AUDIENCE**

Researchers, graduate students and veterinarians in all fields across biological and biomedical research, animal technicians, animal care staff, veterinary anaesthetists, and veterinarians.

## Laboratory Animal Anaesthesia, 4e

Paul Flecknell Comparative Biology Centre, The Medical School,  
Newcastle-Upon-Tyne, UK



A basic guide to anaesthesia for a diverse audience needing straight-forward, structured content

### KEY FEATURES

- Written by a veterinary anesthetist and scientist with over 30 years' experience in the field, and who is actively engaged in research in this area
- Focuses on procedures involving rats and mice used in research
- Provides those with limited experience of anesthesia with the information they need to carry out procedures effectively, safely, and humanely, as well as those with more experience to continue a career with laboratory animal model research
- Includes rapid, easily accessed information using tabulated summaries

### DESCRIPTION

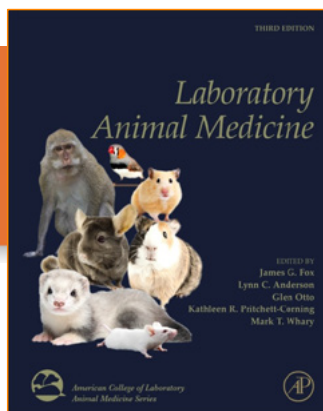
Laboratory Animal Anaesthesia, Fourth Edition provides a basic guide to anaesthesia for a very diverse audience needing content, with straight-forward, structured style of writing. Updated with effects of anaesthetics in different laboratory species, including sources of dose rates will be incorporated into tabular material. New information on pain assessment and pain management will be covered, and an increased emphasis on rats and mice for anaesthesia and perioperative care. With newly revised, full color illustrations to facilitate best learning, *Laboratory animal Anaesthesia, Fourth Edition* provides procedures, key points and invaluable advice from a well-known and respected veterinary anesthetist and scientist with over 30 years of experience in the field.

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TOXICOLOGY**

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**ISBN:** 978-0-12-409527-4

**PREVIOUS EDITION ISBN:**  
978-0-12-263951-7

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 1730

#### **AUDIENCE**

Veterinary and medical students  
and researchers who utilize animals  
in biomedical research.

## **Laboratory Animal Medicine, 3e**

Edited by: **Lynn C. Anderson** VP and Global Scientific Leader, Animal Welfare and Lab Animal Medicine, Covance Laboratories, Inc., Princeton, NJ, USA; **Glen Otto** Director, Animal Resource Center, University of Texas, Austin, TX, USA; **Kathleen R. Pritchett-Corning** Senior Clinical Veterinarian, Office of Animal Resources, Harvard University Faculty of Arts and Sciences, Cambridge, MA, USA; **Mark T. Whary** Associate Director, Division of Comparative Medicine, Massachusetts Institute of Technology, Cambridge, MA, USA; **James G. Fox** Massachusetts Institute of Technology, Cambridge, MA, USA



**This updated edition of the most thorough publication covering all aspects of laboratory animal science covers the biology, health, and care of laboratory animals**

A Volume in the American College of Laboratory Animal Medicine Series.

"...this new edition has maintained the level of quality and quantity one has come to expect from the ACLAM publication series. In its absence, an animal research library should be considered incomplete."

-LABORATORY ANIMAL PRACTITIONER (2003)

"This book offers students of veterinary medicine with practicing or interested scientists in biology and medicine with clearly written and scientifically valid information on the animals used in biomedical research. While the well chosen photographs and illustrations are important and necessary compliments to the text information, the detailed 60-page index allows 'point-source' location of specific details...well organized, well written, and well published, this volume offers much to many who will be seeking its facts and figures."

-VET HUMAN TOXICOL (February 2003)

"This book is written in a clear, readable style that is informative on each topic without significant changes in style among the 32 chapters...a valuable reference for those who need this type of laboratory animal information."

-VETERINARY PATHOLOGY (2003)

#### **KEY FEATURES**

- Organized by species for in-depth understanding of biology, health, and best care of animals
- Features the inclusion of chinchillas, quail, and zebra finches as animal models
- Offers guidance on program and employee management
- Covers regulations, policies, and laws for laboratory animal management worldwide

#### **DESCRIPTION**

*Laboratory Animal Medicine, Third Edition*, is a fully revised publication from the American College of Laboratory Medicine's acclaimed blue book series. It presents an up-to-date volume that offers the most thorough coverage of the biology, health, and care of laboratory animals.

The book is organized by species, with new inclusions of chinchillas, birds, and program and employee management, and is written and edited by known experts in the fields.

Users will find gold-standard guidance on the study of laboratory animal science, as well as valuable information that applies across all of the biological and biomedical sciences that work with animals.

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TOXICOLOGY**

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# RESEARCH REGULATORY COMPLIANCE

EDITORS  
MARK A. SUCKOW AND BILL J. YATES



**ISBN:** 978-0-12-420058-6

**PUB DATE:** August 2015

**FORMAT:** Hardback

**PAGES:** c. 332

## AUDIENCE

Researchers, administrators, institutional officials, and technicians working in laboratories using animal and human subjects.

## Research Regulatory Compliance

Edited by: **Mark A. Suckow** Executive Director, Research Animal Resource, University of Minnesota, St. Paul, MN, USA

**Bill Yates** University of Pittsburgh, Pittsburgh, PA, USA



A “one-stop” resource for information, compliance standards, and regulations surrounding research models, covering not only human subjects, but also animal models.

## KEY FEATURES

- Provides a “one-stop”, go-to resource for the many regulatory and compliance issues that affect laboratory study and research models
- Extremely helpful as a resource for researchers, administrators, and technicians in the laboratory, and also a great asset for faculty or new researchers coming in to the laboratory environment
- Focuses on United States regulations, covering both animal models and human subjects
- Written and edited by known leaders in the field of regulatory compliance who bring many years of collective experience to the book

## DESCRIPTION

*Research Regulatory Compliance* offers the latest information on regulations and compliance in the laboratory. With the increasing complexity of regulations and need for institutional infrastructure to deal with compliance of animal use issues, as well as a requirement surrounding human subjects, this publication provides reputable guidance and information.

The book is extremely helpful as a resource for researchers, administrators, and technicians in the laboratory, and is also a great asset for faculty or new researchers coming in to the laboratory environment. It will help prepare users for the deluge of regulatory and compliance issues they will face while conducting their scientific programs.

The book is edited and authored by known leaders in the field of compliance and regulations, and contains extensive research on the topics. It represents the new standard for information in every laboratory.

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TOXICOLOGY

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**ISBN:** 978-0-12-804819-1

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 280

**AUDIENCE**

Researchers, faculty, and graduate students interested in cutting-edge reviews concerning the molecular and cellular biology of vitamins, hormones, and related factors and co-factors. Libraries and laboratories at institutes with strong programs in cell biology, biochemistry, molecular biology, gene regulation, hormone control, and signal transduction are likely to be interested.

## Vitamins and Hormones, Vol 101

*Klotho*

Edited by: **Gerald Litwack** Toluca Lake, North Hollywood, California, USA



This latest edition of a series first published in 1943 on Vitamins and Hormones is the longest-running serial published by Academic Press, providing up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic, with volumes focusing on a single molecule or on a disease that is related to vitamins or hormones

**KEY FEATURES**

- Contains contributions from experts in the field of vitamins and hormones
- Covers a vast array of subjects
- In-depth, current information at the molecular to clinical levels

**DESCRIPTION**

*Klotho* is the latest edition of a series first published in 1943 on Vitamins and Hormones and the longest-running serial published by Academic Press. It provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic, with volumes focusing on a single molecule or on a disease that is related to vitamins or hormones that are interpreted broadly so that related substances, such as transmitters, cytokines, growth factors, and others can be reviewed.

**SERIALS**

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## Advances in Cancer Research, Vol 130

### *Advances in Cancer Research*

Edited by: **Kenneth D Tew** Department of Cell & Molecular Pharmacology,  
Medical University of South Carolina, USA

**Paul B Fisher** Department of Human & Molecular Genetics, Virginia  
Commonwealth University, USA



**This comprehensive guide provides invaluable information on the exciting and fast-moving field of cancer research that includes outstanding and original reviews on a variety of topics**

#### Praise for the Serial

"This classic and essential series presents critical overviews on select aspects of both cancer research and the basic underlying sciences." —AMERICAN SCIENTIST

"Excellent, highly informative, in-depth reviews...expertly written, up-to-date, and well-referenced." —JOURNAL OF MEDICINAL CHEMISTRY

"This is a series that has a long tradition of excellence in the field of cancer biology."

—DOODY'S PUBLISHING REVIEWS

#### KEY FEATURES

- Provides information on cancer research
- Outstanding and original reviews
- Suitable for researchers and students

#### DESCRIPTION

*Advances in Cancer Research* provides invaluable information on the exciting and fast-moving field of cancer research, presenting outstanding and original reviews on a variety of topics.

**ISBN:** 978-0-12-804789-7

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 300

#### AUDIENCE

Researchers and students in the basic and clinical sciences of cancer biology and oncology, plus related areas in genetics, immunology, pharmacology, cell biology, and molecular biology.

#### SERIALS

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**ISBN:** 978-0-12-804694-4

**PUB DATE:** May 2016

**FORMAT:** Hardback

**PAGES:** c. 112

**AUDIENCE**

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

## Advances in Genetics, Vol 94

### *Genetics and Molecular Biology of Entomopathogenic Fungi*

Edited by: **Brian Lovett** Entomology Department, University of Maryland, USA

**Raymond St. Leger** Entomology Department, University of Maryland, USA



**This book provides users with cutting-edge reviews on the rapidly evolving field of genetics, including information on the recent advancements that have been made and critical analyses on future directions**

#### KEY FEATURES

- Critically analyzes future directions for the study of clinical genetics
- Written and edited by recognized leaders in the field
- Presents new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics

#### DESCRIPTION

*Advances in Genetics* provides the latest information on the rapidly evolving field of genetics, presenting new medical breakthroughs that are occurring as a result of advances in our knowledge of the topic. The book continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines, critically analyzing future directions,

This thematic volume focuses on the advances and the future potential of the rapidly growing field of entomopathogenic fungi. With a focus on the genetics and molecular biology behind the progress, techniques developed to study all aspects of these fungi will be highlighted, and topics will span from systematics of fungi to how a fungus infects an insect and how that insect responds.

#### SERIALS

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**ISBN:** 978-0-12-802290-0

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 350

**AUDIENCE**

The information in this volume will be of interest to a broad range of basic and translational scientists, not only in the relatively narrow field of protein folding/biochemistry, but in other areas of cancer biology and clinical oncology.

## Advances in Cancer Research, Vol 129

### *Hsp90 in Cancer: Beyond the Usual Suspects*

Edited by: **Jennifer Isaacs** Department of Cell and Molecular Pharmacology, Medical University of South Carolina, Charleston, SC, USA  
**Luke Whitesell** Whitehead Institute for Biomedical Research, Cambridge, USA



**The latest in the *Advances in Cancer Research* series provides the most up-to-date, invaluable information on the exciting and fast-moving field of cancer research, focusing mainly on the multifunctional molecular chaperone Hsp90**

"This classic and essential series presents critical overviews on select aspects of both cancer research and the basic underlying sciences." –AMERICAN SCIENTIST

"Excellent, highly informative, in-depth reviews...expertly written, up-to-date, and well-referenced." –JOURNAL OF MEDICINAL CHEMISTRY

"This is a series that has a long tradition of excellence in the field of cancer biology."

–DOODY'S PUBLISHING REVIEWS

#### KEY FEATURES

- Focuses on the multifunctional molecular chaperone Hsp90 which regulates the post-translational stability and function of a broad repertoire of client proteins
- Highlights the rapidly evolving understanding of the fundamental roles of Hsp90 in cancer biology
- Discusses the lesser-known aspects of how Hsp90 and its related family members enable oncogenic transformation and malignant progression

#### DESCRIPTION

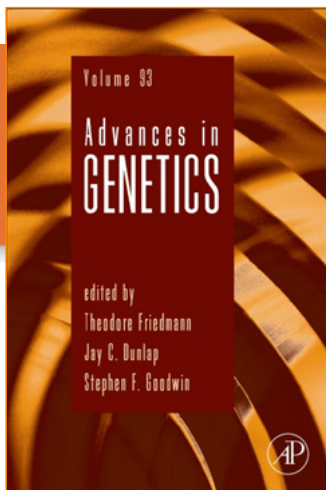
*Hsp90 in Cancer: Beyond the Usual Suspects*, the latest volume in the *Advances in Cancer Research* series, focuses on the multifunctional molecular chaperone Hsp90 which regulates the post-translational stability and function of a broad repertoire of client proteins and discusses some of the lesser-known aspects of how Hsp90 and its related family members enable oncogenic transformation and malignant progression.

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## Advances in Genetics, Vol 93

### *Advances in Genetics*

Edited by: **Theodore Friedmann** School of Medicine, University of California at San Diego, USA

**Jay C. Dunlap** The Geisel School of Medicine, Dartmouth, NH, USA

**Stephen F. Goodwin** University of Oxford, UK



**This book provides users with cutting-edge reviews on the rapidly evolving field of genetics, including information on the recent advancements that have been made and critical analyses on future directions**

#### KEY FEATURES

- Critically analyzes future directions for the study of clinical genetics
- Written and edited by recognized leaders in the field
- Presents new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics

#### DESCRIPTION

*Advances in Genetics* provides the latest information on the rapidly evolving field of genetics, presenting new medical breakthroughs that are occurring as a result of advances in our knowledge of the topic. The book continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines, critically analyzing future directions.

**ISBN:** 978-0-12-804801-6

**PUB DATE:** March 2016

**FORMAT:** Hardback

**PAGES:** c. 112

#### AUDIENCE

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

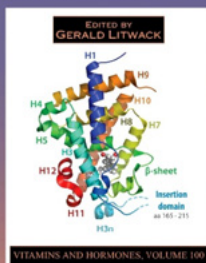
## SERIALS

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## VITAMIN D HORMONE



**ISBN:** 978-0-12-804824-5

**PUB DATE:** February 2016

**FORMAT:** Hardback

**PAGES:** c. 484

### AUDIENCE

Researchers, faculty, and graduate students interested in cutting-edge reviews concerning the molecular and cellular biology of vitamins, hormones, and related factors and co-factors. Libraries and laboratories at institutes with strong programs in cell biology, biochemistry, molecular biology, gene regulation, hormone control, and signal transduction are likely to be interested.

## Vitamins and Hormones, Vol 100

### *Vitamin D Hormone*

Edited by: **Gerald Litwack** Toluca Lake, North Hollywood, California, USA



Cutting-edge reviews concerning the molecular and cellular biology of vitamins and hormones

### KEY FEATURES

- Expertise of the contributors
- Coverage of a vast array of subjects
- In depth current information at the molecular to the clinical levels

### DESCRIPTION

First published in 1943, *Vitamins and Hormones* is the longest-running serial published by Academic Press.

The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed.

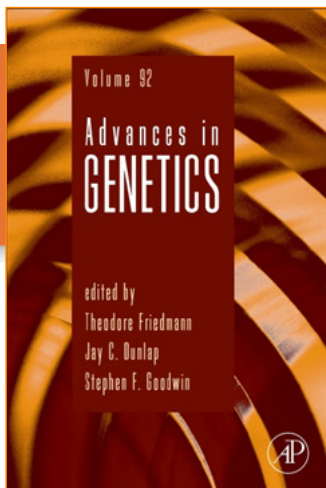
This volume focuses on vitamin D hormone.

### SERIALS

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**ISBN:** 978-0-12-804014-0

**PUB DATE:** November 2015

**FORMAT:** Hardback

**PAGES:** c. 186

**AUDIENCE**

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

## Advances in Genetics, Vol 92

### *Advances in Genetics*

Edited by: **Theodore Friedmann** School of Medicine, University of California at San Diego, USA

**Jay C Dunlap** The Geisel School of Medicine, Dartmouth, NH, USA

**Stephen F. Goodwin** University of Oxford, UK



**This book provides users with cutting-edge reviews of the rapidly evolving field of genetics, including recent advancements**

#### KEY FEATURES

- Critically analyzes future directions for the study of clinical genetics
- Written and edited by recognized leaders in the field
- Presents new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics

#### DESCRIPTION

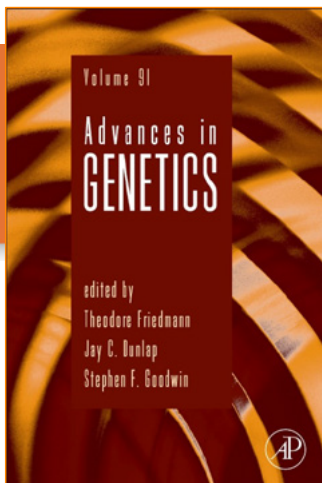
*Advances in Genetics* provides the latest information on the rapidly evolving field of genetics, presenting new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics. The book continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines, critically analyzing future directions.

## SERIALS

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**ISBN:** 978-0-12-802921-3

**PUB DATE:** September 2015

**FORMAT:** Hardback

**PAGES:** c. 154

**AUDIENCE**

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

## Advances in Genetics, Vol 91

### *Advances in Genetics*

Edited by: **Theodore Friedmann** School of Medicine, University of California at San Diego, USA

**Jay C Dunlap** The Geisel School of Medicine, Dartmouth, NH, USA

**Stephen F. Goodwin** University of Oxford, UK



**This book provides users with cutting-edge reviews on the rapidly evolving field of genetics, including information on this rapidly evolving field and the recent advancements that have been made.**

#### KEY FEATURES

- Critically analyzes future directions for the study of clinical genetics
- Written and edited by recognized leaders in the field
- Presents new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics

#### DESCRIPTION

*Advances in Genetics* provides the latest information on the rapidly evolving field of genetics, presenting new medical breakthroughs that are occurring as a result of advances in our knowledge of genetics.

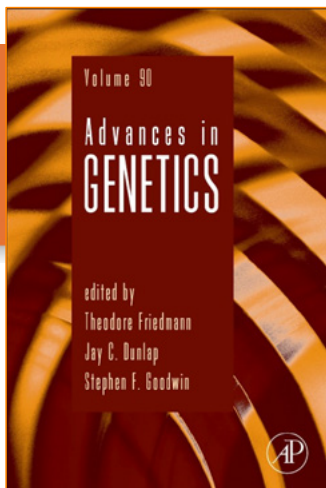
The book continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines, critically analyzing future directions.

#### SERIALS

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**ISBN:** 978-0-12-803694-5

**PUB DATE:** August 2015

**LIST PRICE:**

£104.00/€122.00/\$171.00

**FORMAT:** Hardback

**PAGES:** c. 210

**AUDIENCE**

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

## Advances in Genetics, Vol 90

### *Advances in Genetics*

Edited by: **Theodore Friedmann** School of Medicine, University of California at San Diego, USA

**Jay C Dunlap** The Geisel School of Medicine, Dartmouth, NH, USA

**Stephen F. Goodwin** University of Oxford, UK



**This series continually publishes cutting-edge reviews in the rapidly evolving field of genetics**

Praise for previous volumes in the series:

*"Outstanding both in variety and in the quality of its contributions."*--Nature

*"Can be highly recommended to geneticists, and biologists in general...will prove to be of high importance for the development of the science of genetics."*--Science

#### KEY FEATURES

- Critically analyzes future directions
- Written and edited by recognized leaders in the field

#### DESCRIPTION

The field of genetics is rapidly evolving, and new medical breakthroughs are occurring as a result of advances in our knowledge of genetics. *Advances in Genetics* continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines.

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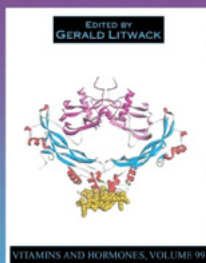
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## BONE MORPHOGENIC PROTEIN



**ISBN:** 978-0-12-802442-3

**PUB DATE:** August 2015

**FORMAT:** Hardback

**PAGES:** c. 332

### AUDIENCE

Researchers, faculty, and graduate students interested in cutting-edge reviews concerning the molecular and cellular biology of vitamins, hormones, and related factors and co-factors. Libraries and laboratories at institutes with strong programs in cell biology, biochemistry, molecular biology, gene regulation, hormone control, and signal transduction are likely to be interested.

## Vitamins and Hormones, Vol 99

### *Bone Morphogenic Protein*

Edited by: **Gerald Litwack** Toluca Lake, North Hollywood, California, USA



Cutting-edge reviews concerning the molecular and cellular biology of vitamins and hormones

### KEY FEATURES

- Expertise of the contributors
- Coverage of a vast array of subjects
- In depth current information at the molecular to the clinical levels

### DESCRIPTION

First published in 1943, *Vitamins and Hormones* is the longest-running serial published by Academic Press.

The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed.

This volume focuses on Bone Morphogenic Protein.

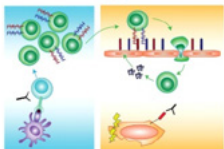
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ADVANCES IN  
**CANCER RESEARCH**  
VOLUME  
128



**IMMUNOTHERAPY OF CANCER**

Edited by  
Xiang-Yang Wang  
Paul B. Fisher



**ISBN:** 978-0-12-802316-7

**PUB DATE:** July 2015

**FORMAT:** Hardback

**PAGES:** c. 376

**AUDIENCE**

Researchers and students in the basic and clinical sciences of cancer biology and oncology, plus related areas in immunology, genetics, pharmacology, cell biology, and molecular biology.

## Advances in Cancer Research, Vol 128

### *Immunotherapy of Cancer*

Edited by: **Paul B Fisher** Department of Human & Molecular Genetics,  
Virginia Commonwealth University, USA

**Xiang-Yang Wang** Professor, Dept of Human & Molecular Genetics,  
Virginia Commonwealth University



**Provides the most up-to-date, invaluable information on the exciting and fast-moving field of cancer research**

Praise for the Serial

"This classic and essential series presents critical overviews on select aspects of both cancer research and the basic underlying sciences." –AMERICAN SCIENTIST

"Excellent, highly informative, in-depth reviews...expertly written, up-to-date, and well-referenced." –JOURNAL OF MEDICINAL CHEMISTRY

"This is a series that has a long tradition of excellence in the field of cancer biology."

–DOODY'S PUBLISHING REVIEWS

#### KEY FEATURES

- Provides information on cancer research, including outstanding and original reviews
- Covers the current progress and emerging concepts in cancer inflammation, immunology, and immunotherapy
- Suitable for researchers and students studying, and interested in, the field of immunotherapy for cancer
- Ideal for those studying cancer inflammation, tumor immunology, cancer immunotherapy, dendritic cell, antigen presentation, immune checkpoint, myeloid-derived suppressor cells, macrophages, and tumor environments

#### DESCRIPTION

*Immunotherapy of Cancer* provides information on cancer research related to inflammation and immunity, containing outstanding reviews by experts in the field. It is suitable for researchers and students who have an interest in cancer immunobiology.

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ADVANCES IN  
**CANCER RESEARCH**  
VOLUME  
**127**



Edited by  
**Kenneth D. Tew**  
**Paul B. Fisher**



**ISBN:** 978-0-12-802920-6

**PUB DATE:** June 2015

**FORMAT:** Hardback

**PAGES:** c. 314

**AUDIENCE**

Researchers and students in the basic and clinical sciences of cancer biology and oncology, plus related areas in genetics, immunology, pharmacology, cell biology, and molecular biology.

## Advances in Cancer Research, Vol 127

### *Advances in Cancer Research*

Edited by: **Kenneth D Tew** Department of Cell & Molecular Pharmacology, Medical University of South Carolina, USA

**Paul B. Fisher** Department of Human & Molecular Genetics, Virginia Commonwealth University, USA



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"This is a series that has a long tradition of excellence in the field of cancer biology."

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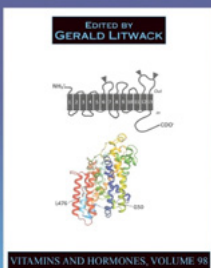
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## HORMONES AND TRANSPORT SYSTEMS



**ISBN:** 978-0-12-803008-0

**PUB DATE:** March 2015

**FORMAT:** Hardback

**PAGES:** c. 538

### AUDIENCE

Researchers, faculty, and graduate students interested in cutting-edge reviews concerning the molecular and cellular biology of vitamins, hormones, and related factors and co-factors. Libraries and laboratories at institutes with strong programs in cell biology, biochemistry, molecular biology, gene regulation, hormone control, and signal transduction are likely to be interested.

## Vitamins and Hormones, Vol 98

### *Hormones and Transport Systems*

Edited by: **Gerald Litwack** Toluca Lake, North Hollywood, California, USA



Cutting-edge reviews concerning the molecular and cellular biology of vitamins and hormones

### KEY FEATURES

- Expertise of the contributors
- Coverage of a vast array of subjects
- In depth current information at the molecular to the clinical levels

### DESCRIPTION

First published in 1943, *Vitamins and Hormones* is the longest-running serial published by Academic Press.

The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed.

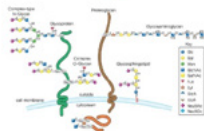
This volume focuses on hormone and transport systems.

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*Edited by*  
**Richard R. Drake**  
**Lauren Ball**

## AUDIENCE

Researchers working in any area related to extracellular matrix function, the epithelial-to-mesenchymal transition and the mechanisms of metastasis.

## Glycosylation and Cancer

Edited by: **Richard R Drake** Cell and Molecular Pharmacology & Experimental Therapeutics, Medical University of South Carolina, USA  
**Lauren Ball** Cell and Molecular Pharmacology & Experimental Therapeutics, Medical University of South Carolina, USA



**Advances in Cancer Research** provides invaluable information on the exciting and fast-moving field of cancer research

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- Outstanding and original reviews
- Suitable for researchers and students

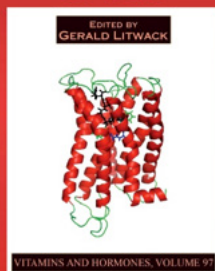
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## NOCICEPTIN OPIOID



**ISBN:** 978-0-12-802443-0

**PUB DATE:** February 2015

**FORMAT:** Hardback

**PAGES:** c. 342

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Researchers, faculty, and graduate students interested in cutting-edge reviews concerning the molecular and cellular biology of vitamins, hormones, and related factors and co-factors. Libraries and laboratories at institutes with strong programs in cell biology, biochemistry, molecular biology, gene regulation, hormone control, and signal transduction are likely to be interested.

## Vitamins and Hormones, Vol 97

### *Nociceptin Opioid*

Edited by: *Gerald Litwack* Toluca Lake, North Hollywood, California, USA



Cutting-edge reviews concerning the molecular and cellular biology of vitamins and hormones

### KEY FEATURES

- Expertise of the contributors
- Coverage of a vast array of subjects
- In depth current information at the molecular to the clinical levels
- Three-dimensional structures in color
- Elaborate signaling pathways

### DESCRIPTION

First published in 1943, *Vitamins and Hormones* is the longest-running serial published by Academic Press.

The Series provides up-to-date information on vitamin and hormone research spanning data from molecular biology to the clinic. A volume can focus on a single molecule or on a disease that is related to vitamins or hormones. A hormone is interpreted broadly so that related substances, such as transmitters, cytokines, growth factors and others can be reviewed.

This volume focuses on nociceptin opioid.

## SERIALS

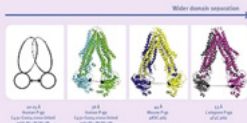
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## ADVANCES IN CANCER RESEARCH VOLUME

125



### ABC TRANSPORTERS AND CANCER

Edited by  
John D. Schuetz  
& Toshihisa Ishikawa



**ISBN:** 978-0-12-801251-2

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 260

#### AUDIENCE

Researchers and students in the basic and clinical sciences of cancer biology and oncology, plus related areas in genetics, immunology, pharmacology, cell biology, and molecular biology.

## Advances in Cancer Research, Vol 125

### *ABC Transporters and Cancer*

Edited by: **Toshihisa Ishikawa** NGO Personalized Medicine & Healthcare, Japan

**John Schuetz** Department of Pharmaceutical Sciences, St. Jude Children's Research Hospital, USA



**Advances in cancer research provides invaluable information on the exciting and fast-moving field of cancer research**

Praise for the Serial

"This classic and essential series presents critical overviews on select aspects of both cancer research and the basic underlying sciences." —AMERICAN SCIENTIST

"Excellent, highly informative, in-depth reviews...expertly written, up-to-date, and well-referenced." —JOURNAL OF MEDICINAL CHEMISTRY

"This is a series that has a long tradition of excellence in the field of cancer biology."

—DOODY'S PUBLISHING REVIEWS

#### KEY FEATURES

- Provides information on cancer research
- Outstanding and original reviews
- Suitable for researchers and students

#### DESCRIPTION

*ABC Transporters and Cancer* provides invaluable information on the exciting and fast-moving field of cancer research. Here, outstanding and original reviews are presented on a variety of topics. This volume covers ABC transporters and cancer, and is suitable for researchers and students alike.

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Volume 89  
**Nonviral Vectors  
for Gene Therapy:  
Physical Methods  
and Medical  
Translation**

edited by  
Leaf Huang  
Dexi Liu  
Ernst Wagner



**ISBN:** 978-0-12-802272-6

**PUB DATE:** January 2015

**FORMAT:** Hardback

**PAGES:** c. 286

**AUDIENCE**

Molecular geneticists, clinical geneticists, neurologists, neuroscientists, molecular biologists, and biochemists.

## Advances in Genetics, Vol 89

### *Non-Viral Vectors for Gene Therapy*

Edited by: **Leaf Huang** Department of Biomedical Engineering, University of North Carolina at Chapel Hill, North Carolina, U.S.A.

**Dexi Liu** Department of Pharmaceutical and Biomedical Sciences, University of Georgia College of Pharmacy, Georgia, U.S.A.

**Ernst Wagner** Munich Center for System-based Drug Research, Center for Nanoscience, Ludwig-Maximilians-Universität, Germany



**This series continually publishes cutting-edge reviews in the rapidly evolving field of genetics**

Praise for previous volumes in the series:

*"Outstanding both in variety and in the quality of its contributions."*--Nature

*"Can be highly recommended to geneticists, and biologists in general...will prove to be of high importance for the development of the science of genetics."*--Science

#### KEY FEATURES

- Includes methods for testing with ethical, legal, and social implications
- Critically analyzes future directions
- Written and edited by recognized leaders in the field

#### DESCRIPTION

The field of genetics is rapidly evolving, and new medical breakthroughs are occurring as a result of advances in our knowledge of genetics. *Advances in Genetics* continually publishes important reviews of the broadest interest to geneticists and their colleagues in affiliated disciplines.

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# Titles Index

## A

Abidov	The Cardiac MRI in Diagnosis	41
Akter	Tissue Engineering Made Easy	30
Albanna	Skin Tissue Engineering and Regenerative Medicine	44
Apte	Liver Regeneration	73
Aronow	Translational Research in Coronary Artery Disease	52
Arroyo	Back to Basics in Physiology	79
Atala	Essentials of 3D Biofabrication and Translation	75

## B

Baskin	Ensuring National Biosecurity	43
Bassaganya-Riera	Computational Immunology: Models and Tools	58
Becker	Heat Transfer and Fluid Flow in Biological Processes	93
Béranger	Big Data and Ethics	18
Best	Dynemicin A, Uncialamycin and Analogues	19
Bignold	Principles of Tumors	74
Bruschi	Strategies to Modify the Drug Release from Pharmaceutical Systems	12
Bryder	Virtual Business Models	2
Buja	Cardiovascular Pathology, 4e	47

## C

Clarke	Clinical Challenges in Therapeutic Drug Monitoring	24
Cole	Human Physiology, Biochemistry and Basic Medicine	60
Coleman	Diagnostic Molecular Pathology	23

## D

Da	Medicinal Plants	11
Darbre	Endocrine Disruption and Human Health	86
Dasgupta	Alcohol and Its Biomarkers	88
Dixon	Health Information Exchange	42
Drake	Glycosylation and Cancer, Vol 126	116
Duan	Highlights of the Chinese Exposure Factors Handbook	87

# Titles Index

## F

Farhat	Bioengineering for Surgery	9
Flecknell	Laboratory Animal Anaesthesia, 4e	100
Foote	Oral Exams	96
Fox	Laboratory Animal Medicine, 3e	101
Fraga	Epigenomics in Health and Disease	55
Friedmann	Advances in Genetics, Vol 93	107
Friedmann	Advances in Genetics, Vol 92	109
Friedmann	Advances in Genetics, Vol 91	110
Friedmann	Advances in Genetics, Vol 90	111

## G

Gandhi	Stellate Cells in Health and Disease	82
Gavins	Vascular Responses to Pathogens	57
Geavlete	Endoscopic Diagnosis and Treatment in Urinary Bladder Pathology	31
Geavlete	Endoscopic Diagnosis and Treatment in Prostate Pathology	45
Geavlete	Endoscopic Diagnosis and Treatment in Urethral Pathology	62

## H

Hamblin	Applications of Nanoscience in Photomedicine	16
Hamblin	Imaging in Dermatology	33
Hamblin	Nanoscience in Dermatology	34
Heller	FORWARD to Professorship in STEM	46
Hesse	Oncology Informatics	38
Hoffman	Modeling Neuropsychiatric Disorders in Laboratory Animals	10
Hoffman	Biostatistics for Medical and Biomedical Practitioners	66
Hongmao	A Practical Guide to Rational Drug Design	8
Houssami	Breast Cancer Screening	25
Huang	Epigenetic Gene Expression and Regulation	51
Huang	Non-Viral Vectors for Gene Therapy, Vol 89	119

# Titles Index

## I

Isaacs	Hsp90 in Cancer: Beyond the Usual Suspects, Vol 129	106
Ishikawa	ABC Transporters and Cancer, Vol 125	118

## J

James	The Health of Populations	56
-------	---------------------------	----

## K

Krantz	Oral Communication Skills for Scientific Presentations	94
Kumar	Medical and Health Genomics	21
Kumar	Genomics and Society	53

## L

Lalanne	Biostatistics and Computer-Based Analysis	20
Lanzkowsky	Lanzkowsky's Manual of Pediatric Hematology and Oncology, 6e	36
Little	Kidney Development, Disease, Repair and Regeneration	68
Litwack	Klotho, Vol 101	103
Litwack	Vitamin D Hormone, Vol 100	108
Litwack	Bone Morphogenic Protein, Vol 99	112
Litwack	Hormones and Transport Systems, Vol 98	115
Litwack	Nociceptin Opioid, Vol 97	117
Lorenzo	Osteoimmunology, 2e	63
Lovett	Genetics and Molecular Biology of Entomopathogenic Fungi, Vol 94	105
Lutz	Ultrafiltration for Bioprocessing	15

## M

Maiese	Molecules to Medicine with mTOR	37
Malavolta	Molecular Basis of Nutrition and Aging	32
Mauricio	Molecular Nutrition and Diabetes	48
McCabe	Healthy Babies Are Worth The Wait	77
Mohler	Regenerative Medicine for Peripheral Artery Disease	22
Musoke	Informed and Healthy	28
Mydlo	Prostate Cancer, 2e	61

# Titles Index

## N

Nadkarni	Clinical Research Computing	27
Narain	Polymers and Nanomaterials for Gene Therapy	3
Neidhart	DNA Methylation and Complex Human Disease	67
Neigh	Sex Differences in Physiology	26
Nicholson	Metabolic Phenotyping in Personalized and Public Healthcare	40
Nilsson	Early Vascular Aging (EVA)	72

## O

Oellerich	Personalized Immunosuppression in Transplantation	69
-----------	---	----

## P

Pantalone	MRI Atlas of Pituitary Pathology	89
Parker	Atlas of Histology of the Juvenile Rat	99
Patel	Molecular Aspects of Alcohol and Nutrition	54
Patience	Communicate Science Papers, Presentations, and Posters Effectively	97
Patwardhan	Integrative Approaches for Health	85
Peake	The Life-Cycle of Pharmaceuticals in the Environment	5
Perin	Stem Cell and Gene Therapy for Cardiovascular Disease	71
Pleskow	Barrett's Esophagus	35
Poltronieri	Applied Plant Genomics and Biotechnology	17
Pritchard	Success Strategies From Women in STEM, 2e	98

## R

Reddy	Advances in Pathobiology and Management of Paget's Disease of Bone	29
Rodriguez	CAPA in the Pharmaceutical and Biotech Industries	4
Rodriguez-Oquendo	Translational Cardiometabolic Genomic Medicine	65
Rose	Friends and Partners	39

## S

Sandle	Pharmaceutical Microbiology	7
Sarmiento	Concepts and Models for Drug Permeability Studies	6
Schwarzer	The Scientist's Guide to Cardiac Metabolism	50

# Titles Index

Shahzad	Translational Medicine: Tools And Techniques	49
Shire	Monoclonal Antibodies	14
Smith	Graduate Research, 4e	95
Snyder	The Management of Scientific Integrity within Academic Medical Centers	92
Suckow	Research Regulatory Compliance	102
<b>T</b>		
Takei	Handbook of Hormones	70
Tang	Mesenchymal Stem Cell Derived Exosomes	64
Tew	Advances in Cancer Research, Vol 130	104
Tew	Advances in Cancer Research, Vol 127	114
Tollefsbol	Personalized Epigenetics	78
<b>U</b>		
Unger	The Protective Arm of the Renin Angiotensin System (RAS)	81
<b>V</b>		
Vives	Guide to Cell Therapy GxP	76
<b>W</b>		
Wahed	Hematology and Coagulation	91
Wang	Immunotherapy of Cancer, Vol 128	113
Wartman	The Transformation of Academic Health Centers	83
Watson	Handbook of Fertility	80
Watson	Foods and Dietary Supplements	90
Wehling	Principles of Translational Science in Medicine, 2e	84
Weiss	Genetic Diagnosis of Endocrine Disorders, 2e	59
<b>Z</b>		
Zengyou	Data Mining for Bioinformatics Applications	13

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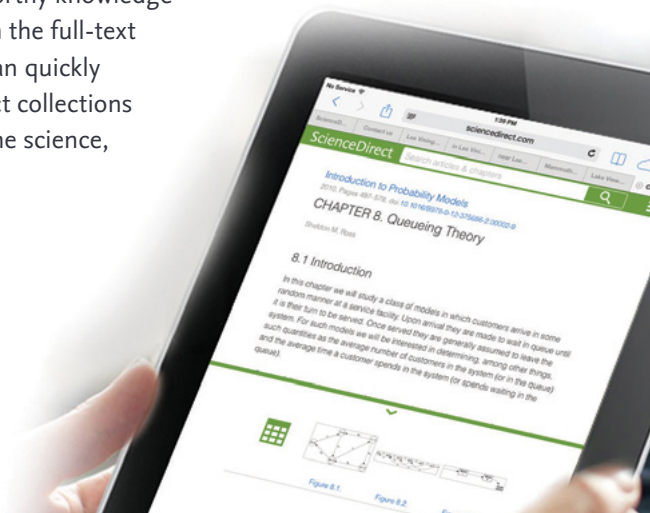


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