D. J. Baker, SAMU de Paris, Paris, France

**Toxic Trauma**

**A Basic Clinical Guide**

This book provides practical guidance to emergency personnel and others in the event of having to manage individual or mass chemical casualties as part of their work in a civilian ambulance service or hospital. The text considers the nature and basic science of the hazards faced as well as the practical management of persons exposed to chemicals and toxins (which although of biological origin behave as chemicals in terms of their effects and transmission). Individual chapters cover the development and classification of chemical toxic agents, how exposure can occur and how medical personnel should be involved in its management.

**Features**

- A practical reference guide for medical personnel faced with the management of casualties following exposure to toxic chemical agents
- The approach to the effects of chemical agent exposure will be one that parallels conventional trauma management teaching systems (eg ATLS)
- The text will go beyond existing literature on poisoning and clinical toxicology to provide a holistic approach to the management of exposure to industrial and chemical warfare agents

**Contents**


**Fields of interest**
Pharmacology/Toxicology; Emergency Medicine

**Target groups**
Professional/practitioner

**Discount group**
Professional Non-Medical

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M. Balali-Mood, Mashhad University of Medical Sciences, Mashhad, Iran; M. Abdollahi, Tehran University of Medical Science, Tehran, Iran (Eds)

**Basic and Clinical Toxicology of Organophosphorus Compounds**

This book explains the chemistry of Organophosphorus compounds (OPs), their mechanism of toxicity and the history of OPs from their initial discovery to the development of new compounds such as Novichoks. It details the harmful effects to human health both as a result of acute and chronic OP exposure and the necessary clinical management of affected patients to reduce their toxic side effects.

**Features**

- A comprehensive reference for clinical toxicologists and emergency physicians involved in teaching and research on the health effects of organophosphorus compounds
- Provides updated information on different aspects of organophosphorus compounds including neurological complications of exposure
- A basic guide to organophosphorus compounds for regulatory authorities in agriculture, works, environment, industries, military and health

**Contents**

Chemistry and classification of OP compounds.- History of use and epidemiology of organophosphorus poisoning.- Acute toxicity of organophosphorus compounds.- Chronic toxicity of organophosphorus compounds.- Toxicity and novel biomarkers of OP exposure.- Clinical management of acute OP pesticide poisoning.- Clinical management of organophosphorus nerve agents’ poisonings.- Occupational and environmental aspects of organophosphorus compounds.- Summary, discussion and conclusions.

**Fields of interest**
Pharmacology/Toxicology; Emergency Medicine; Molecular Medicine

**Target groups**
Professional/practitioner

**Discount group**
Professional Non-Medical

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C. Carlberg, F. Molnár, University of Eastern Finland, Kuopio, Finland

**Mechanisms of Gene Regulation**

This textbook aims to describe the fascinating area of eukaryotic gene regulation for graduate students in all areas of the biomedical sciences. Gene expression is essential in shaping the various phenotypes of cells and tissues and as such, regulation of expression is a fundamental aspect of nearly all processes in physiology, both in healthy and in diseased states. This pivotal role for the regulation of gene expression makes this textbook essential reading from students of all the biomedical sciences in order to be better prepared for their specialized disciplines. A complete understanding of transcription factors and the processes that alter their activity is a major goal of modern life science research.

**Features**

- Figure-driven textbook, i.e. ratio of text to figures is low
- Expertly written textbook on a modern field of general interest, based on 10 years experience of teaching the course for which the textbook is designed
- Many figures are based on real protein structures, i.e. not only on schemes

**Contents**

Overview: What is gene expression?.- The impact of chromatin.- The basal transcriptional machinery.- Transcription factors.- Linking signal transduction and gene regulation.- Switching genes on and off at the example of nuclear receptors.- Mapping the genome.- Chromatin modifiers.- Genomic imprinting.- The epigenome.- Chromatin remodeling.- Chromatin architecture.- Regulatory RNA.

**Fields of interest**
Gene Expression; Protein Structure

**Target groups**
Graduate

**Discount group**
Professional Non-Medical

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Machine Learning in Medicine

Part Three

Machine learning is concerned with the analysis of large data and multiple variables.

Features
- Electronic health records of modern health facilities, are increasingly complex and systematic assessment of these records is virtually impossible without special computationally intensive methods.
- Clinicians and other health professionals are not familiar with these methods, and this book is the first publication that systematically reviews such methods, particularly, for this audience.
- The book is written as a hand-held presentation also accessible to non-mathematicians, and as a must-read publication for those new to the methods.
- The book includes step by step data analyses in SPSS, and can, therefore, also be used as a cookbook-like guide for those starting with the novel methodologies in machine learning.

Contents

Mucosal Delivery of Biopharmaceuticals

Biology, Challenges and Strategies

Contents
Focal Controlled Drug Delivery

Contents
Molecular Mechanisms of Angiogenesis

From Ontogenesis to Oncogenesis

Angiogenesis is a multi-stage process that drives the generation of new blood and lymphatic vessels from pre-existing ones. It is highly active during embryogenesis, largely inactive during adulthood but reactivated during wound healing and under a number of pathological situations including cancer and ocular diseases. In addition to endothelial cells, which line the walls of the vessels, several other cell types (pericytes, macrophages, progenitor cells,...) also contribute to angiogenesis. A number of signaling pathways are activated and very finely tune the delicate morphogenetic events that ultimately lead to the formation of stable bloodproof neovessels. This book reviews recent advances made in our understanding of the molecular and cellular mechanisms of angiogenesis, with a focus on how to integrate these observations into the context of developmental, post-natal and pathological neovascularization.

Features
► Offers the latest information on the major signaling pathways that control angiogenesis, which is integrated into the description of the cellular events driving developmental, post-natal and pathological angiogenesis ► Presents contributions by the leading international experts in the field ► Published under the auspices of the French society of angiogenesis

Fields of interest
Molecular Medicine; Oncology; Cancer Research

Target groups
Professional/practitioner

Discount group
Professional Non-Medical

Ocular Pharmacology and Toxicology

Features
► Serves as an ideal training manual for exploring design and conduct of ocular pharmacology and toxicology studies ► Features practical methodologies that are tested and successful ► Includes study design, analysis, and routes to regulatory approval for a variety of ophthalmic drugs

Contents

Field of interest
Pharmacology/Toxicology

Target groups
Professional/practitioner

Discount group
Professional Non-Medical

Progress in Heritable Soft Connective Tissue Diseases

This volume is a reference handbook focusing on diseases like Marfan syndrome, Ehlers-Danlos syndrome, Loeys-Dietz syndrome and other heritable soft connective tissue diseases. The book presents detailed information for both basic scientists and for clinicians seeing patients.

Features
► Provides an update on the pathophysiology of heritable soft connective tissue diseases ► Discusses the role of individual components of the extracellular matrix in specific aspects of various soft tissue disorders ► Can be used as a diagnostic guide for clinicians with tables correlating syndromes with symptoms, clinical signs and laboratory findings ► Offers new management options and therapeutic directions

Contents

Fields of interest
Human Genetics; Cell Physiology; Internal Medicine

Target groups
Graduate

Discount group
Professional Non-Medical
**Protein Conformational Dynamics**

Contents


**Fields of interest**

Biomedicine general; Protein Science; Computer Appl. in Life Sciences

**Target groups**

Research

**Discount group**

Professional Non-Medical

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**Tumor Metabolome Targeting and Drug Development**

In this volume, the major metabolic alterations identified in cancer and tumor-associated cells are explored, including discussions of former and emerging approaches to drug development in targeting cancer cell metabolism. The metabolic network in cells promotes the generation of both energy and biomass needed for them to grow, divide and differentiate. However, the metabolism of malignant cells generally varies from that of normal cells.

**Features**

- Provides expert reviews of multiple metabolic targets covering the glycolytic pathway, Krebs cycle, tumor microenvironment, hypoxia, and therapeutic strategies.
- Explores experimental models for evaluating the tumor metabolome to provide knowledge and access to the field.
- Bridges the fields of cancer cell metabolism, tumor/stroma microenvironments, autophagy, drug discovery and development, and translational application of novel cancer therapies.

**Contents**

Tumor cell metabolic reprogramming and drug targeting.
- Cancer metabolism: a nexus of matter, energy and reactive oxygen species.
- Regulating mitochondrial respiration in cancer.
- Regulation of cancer cell metabolism by hypoxia.
- Glucose metabolism and the anti-oxidative defence system in cancer cells: Options for application of ROS-based anticancer drugs.
- Modulating autophagy and the "reverse Warburg effect".
- Metabolic adaptation in reprogrammed cancer cells.

**Fields of interest**

Cancer Research; Metabolomics; Molecular Medicine

**Target groups**

Research

**Discount group**

Professional Non-Medical

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**Lipid Hydroperoxide-Derived Modification of Biomolecules**

Contents


**Fields of interest**

Cancer Research; Posttranslational Modification; Food Science

**Target groups**

Research

**Discount group**

Professional Non-Medical

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Due December 2013


$189.00

ISBN 978-3-319-02969-6

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Due December 2013

2014. I, 318 p. 22 illus., 12 in color. (Cancer Drug Discovery and Development) Hardcover

$189.00

ISBN 978-1-4614-9544-4

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Due December 2013

2014. XV, 230 p. 77 illus., 25 in color. (Subcellular Biochemistry, Volume 77) Hardcover

$189.00

ISBN 978-94-007-7919-8
Experimental Metastasis: Modeling and Analysis

Metastatic dissemination of cancer is a main cause of cancer related deaths, therefore biological mechanisms implicated in metastatic process presents an essential object of cancer research. This research requires creation and utilization of adequate laboratory models. The book describes main approaches to model processes of metastatic cancer dissemination and metastases development. The book is structured in according with various metastatic pathways reflecting molecular specificity of metastatic process as well as anatomical specificity of area of dissemination.

Features
- Structure of the book is based on anatomical areas of cancer dissemination that has clinical relevance.
- Any chapter is written/supervised by leading researcher in specific area of metastasis research.
- The book is focused on experimental approach of metastatic cancer research; any chapter contains supportive theoretical information and detailed description of relevant laboratory procedures.
- The book is supplemented by informative illustrations, schemes and tables.
- Extensive lists of references for any chapter provides with possibility of effective deep study.

Contents

Fields of interest
Cancer Research; Laboratory Medicine; Animal Models

Target groups
Professional/practitioner

Discount group
Professional Non-Medical

Impact of Sleep and Sleep Disturbances on Obesity and Cancer

Sleep has recently been recognized as a critical determinant of energy balance regulating, restoration and repair of many of the physiologic and psychologic processes involved in modulating energy intake and utilization.

Features
- Focuses on the relation of sleep disorders, both qualitative and quantitative, to obesity and cancer across the lifespan.
- Discusses epidemiologic considerations, research on mechanisms of sleep and cancer, as well as potential approaches to interventions.
- Constitutes a valuable addition at the cutting edge of studies on Energy Balance and Cancer.

Contents

Fields of interest
Cancer Research; Human Physiology; Endocrinology

Target groups
Research

Discount group
Professional Non-Medical
Voltage Gated Sodium Channels

A number of techniques to study ion channels have been developed since the electrical basis of excitability was first discovered. Ion channel biophysicists have at their disposal a rich and ever-growing array of instruments and reagents to explore the biophysical and structural basis of sodium channel behavior.

Features
- Gives unprecedented insight into the structural basis of sodium channel function
- Explores sodium channels from the perspectives of their biophysical behavior
- Written by leading experts in the field

Contents
Overview: biophysical properties and structure of sodium channels.
- The role of β subunits in physiology and pathophysiology of sodium channels.
- Probing gating mechanisms of sodium channel using pore blockers.
- Animal toxins influence voltage-gated sodium channel function.
- Voltage-sensor trapping toxins: Isoform-specific ligands for sodium channels.
- Pharmacological insights and quirks of bacterial sodium channels.
- Regulation/modulation of sensory neuron sodium channels.
- Ubiquitylation of voltage-gated sodium channels.
- Voltage-gated sodium channels.
- The voltage sensor module in the sodium channel.
- Voltage Gated Sodium Channels

Pathogenesis of Leishmaniasis

New Developments in Research

This book will discuss recent developments in several laboratories studying leishmaniasis. Sequencing of the human genome, as well as of the leishmania genome, has led to significant advances in our understanding of host-immune responses against leishmania, and mechanisms of infection-induced pathology, which is responsible for morbidity and mortality. The book will focus on the latest basic research into leishmaniasis, but will also address how advances in understanding can be applied to prevention, control and treatment of what the WHO has classified a neglected tropical disease.

Features
- Will address the most recent developments in the understanding of leishmaniasis
- Uses information gained from the sequencing of the leishmania genome to assess the host-immune response
- Focus is primarily on the most recent basic research, but will also consider how to apply the knowledge gained to prevention, control and treatment of this neglected tropical disease

Contents
Immunopathology of leishmaniasis.
- Immune evasion in leishmaniasis.
- Biomarkers in prevention and treatment of leishmaniasis.
- Para-transgenesis and Leishmaniasis.
- Vaccines for leishmaniasis.
- Reservoir control strategies.
- Vector control strategies.
- Global epidemiology (Dr. Caryn Bern).
- Newer approaches to cutaneous and visceral leishmaniasis (Satoskar and Shyam Sundar).

Fields of interest
Parasitology; Immunology; Medical Microbiology

Target groups
Research

Discount group
Professional Non-Medical

Due February 2014
2014. Approx. 400 p. (Handbook of Experimental Pharmacology, Volume 221) Hardcover
➤ approx. $419.00
ISBN 978-3-642-41587-6

Due April 2014
2014. Approx. 275 p. Hardcover
➤ approx. $189.00
ISBN 978-1-4614-9107-1

Due December 2013
2014. X, 150 p. 10 illus. in color. (Research and Perspectives in Endocrine Interactions, Volume 12) Hardcover
➤ approx. $139.00
ISBN 978-3-319-02590-2
G Protein-Coupled Receptor Genetics

Research and Methods in the Post-Genomic Era

Contents

Fields of interest
Pharmacology/Toxicology; Proteomics

Target groups
Professional/practitioner

Discount group
Professional Non-Medical

Gene Correction

Methods and Protocols

Contents

Fields of interest
Human Genetics; Gene Function

Target groups
Professional/practitioner

Discount group
Professional Non-Medical

DNA Cloning and Assembly Methods

Features
► Includes methods based on mechanisms ► Provides step-by-step detail essential for reproducible results ► Contains key notes and implementation advice from the experts

Contents

Fields of interest
Human Genetics; Gene Function

Target groups
Professional/practitioner

Discount group
Professional Non-Medical