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Human Epigenomics
C. Carlberg, F. Molnár

The term epigenetics describes regulatory and information storing mechanisms of specific genes that do not involve any change of their DNA sequence. Epigenetics is closely related to the extensively folded state, in which the genome is packaged, known as chromatin. [...]

Contents

Fields of Interest
Human Genetics; Molecular Medicine

February 2018
XIX, 223 p. 120 illus. in color. Hardcover. 155 x 235 mm
£ 61.99 | € 76.99 | $ 89.99
ISBN 978-981-10-7613-8

All Languages Rights Available

Medical Parasitology
A Textbook
R. Mahmud, Y. A. L. Lim, A. Amir

This textbook will provide a systematic comprehension of the various medically important human parasites; their distribution, habitat, morphology and life cycle, pathogenesis and clinical features, laboratory diagnosis, treatment, prevention and control. The main emphasis is on the protozoan and helminthic diseases, also medical entomology covering vectors relevant to these diseases. [...]

Contents
Section 1 Basic concepts in medical parasitology.- Section 2 MUST KNOW infections in medical parasitology. Protozoan infections.- Helminth infections.- Section 3 Integration of parasitic infections.- Foodborne parasites.- Waterborne parasites.- Vectorborne parasites.- Zoonotic parasites.

Fields of Interest
Parasitology; Infectious Diseases; Drug Resistance

February 2018
XI, 191 p. 82 illus. in color. Softcover. 155 x 235 mm
£ 61.99 | € 76.99 | $ 99.00
ISBN 978-3-319-68794-0

All Languages Rights Available

Microbial Biotechnology
Volume 2. Application in Food and Pharmacology
J. K. Patra, G. Das, H. Shin (Eds)

This edited book, is a collection of 25 chapters describing the recent advancements in the application of microbial technology in the food and pharmacology sector. [...]

Contents
Section 1: Application of microbial technology in food.- 1. Recent food preservation techniques employed in the food industry.- 2. Metagenomic insights into environmental microbiome and their application in food/pharmaceutical industry.- 3. Changing paradigm of probiotics from functional foods to biotherapeutic agents. [...]

Fields of Interest
Biomedical Engineering/Biotechnology; Applied Microbiology

March 2018
XVIII, 547 p. 57 illus., 33 illus. in color. Hardcover. 155 x 235 mm
£ 160.00 | € 199.99 | $ 239.00

All Languages Rights Available

All Languages Rights Available
Pediatric Vaccines and Vaccinations
A European Textbook
T. Vesikari, P. Van Damme (Eds)

This graduate textbook serves as a highly readable guide on vaccines and vaccination in infants, children and adolescents from an European perspective. The first part of the book is dedicated to childhood and adolescent vaccine schedules, maternal and neonatal immunization and safety of vaccines. In a second part we focus on viral and bacterial vaccines. [...] 

Contents
Foreword.- Part I: General Vaccinology.- Expected and unexpected effects of vaccination.- How vaccinating people can also protect others.- Childhood and adolescent immunization programmes in Europe.- Vaccine hesitancy, acceptance and demand.- Adjuvants in pediatric vaccines.- Maternal immunization.- Neonatal immunization.- Part II: Viral vaccines and vaccinations.- Poliovirus vaccines. [...] 

Fields of Interest
Vaccine; Immunology; Pediatrics

A Practical Guide to Biomedical Research for the Aspiring Scientist
P. Agger, R. S. Stephenson, J. M. Hasenkam

This book advises and supports novice researchers in taking their first steps into the world of scientific research. Through practical tips and tricks presented in a clear, concise and step-wise manner, the book describes the entire research process from idea to publication. It also gives the reader insight into the vast opportunities a research career can provide. [...] 

Contents
Part 1. Before you start.- Chap 1 First steps in research, an overview.- Chap 2 Research environments (Differences and similarities, pros and cons).- Chap 3 Finding a good supervisor.- Chap 4 Defining the project.- Part 2. Doing research.- Chap 5 Searching for scientific literature.- Chap 6 he scientific protocol, purpose and target group, and how is it written?- Chap 7 Applications. [...] 

Fields of Interest
Biomedicine, general; Science Education; Popular Life Sciences

Methods for Stability Testing of Pharmaceuticals
S. Bajaj, S. Singh (Eds)

This detailed volume collects numerous methods and protocols related to different aspects of stability programs that are followed in pharmaceutical development laboratories. [...] 

Contents

Fields of Interest
Pharmacology/Toxicology

Series Title
Methods in Pharmacology and Toxicology

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XIII, 264 p. 61 illus., 57 illus. in color. Hardcover.
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X, 263 p. 75 illus., 46 illus. in color. Hardcover.
178 x 254 mm
£88.00 | €109.99 | $139.00
ISBN 978-1-4939-7685-0

All Languages Rights Available
Toxicity and Biodegradation Testing
E. D. Bidoia, R. N. Montagnolli (Eds)

This volume presents a broad compendium of techniques used in biodegradation and toxicological research. [...] 

Contents
Biodegradation of Selected Endocrine Disrupting Compounds.- Biodegradation and Inhibitory Effects of Antibiotics on Biological Wastewater Treatment Systems.- Alternative Approaches to Determine the Efficiency of Biomixtures Used for Pesticide Degradation in Biopurification Systems.- Bioremediation of Methomyl by Escherichia coli. [...] 

Fields of Interest
Pharmacology/Toxicology 

Series Title
Methods in Pharmacology and Toxicology 

Retinal Gene Therapy
Methods and Protocols
C. J. F. Boon, J. Wijnholds (Eds)

This detailed volume describes a spectrum of methods and protocols that can be used for the bench-to-bedside development and evaluation of retinal gene therapy. [...] 

Contents
Small Scale Production of Recombinant Adeno-Associated Viral Vectors for Gene Delivery to the Nervous System.- Small and Micro-Scale Recombinant Adeno-Associated Virus Production and Purification for Ocular Gene Therapy Applications.- Design and Development of AAV-Based Gene Supplementation Therapies for Achromatopsia and Retinitis Pigmentosa. [...] 

Fields of Interest
Human Genetics 

Series Title
Methods in Molecular Biology 

Veterinary Forensic Pathology, Volume 1
J. W. Brooks (Ed)

This richly illustrated two-volume book offers a comprehensive and essential reference guide for veterinary pathologists and clinical veterinarians interested in performing animal necropsies for forensic casework. It presents a broad range of animal crime cases, with particular focus on the post mortem examination and the observed pathology. [...] 

Contents

Fields of Interest
Forensic Science; Veterinary Medicine/ Veterinary Science; Forensic Medicine
Veterinary Forensic Pathology, Volume 2
J. W. Brooks (Ed)

This richly illustrated two-volume book offers a comprehensive and essential reference guide for veterinary pathologists and clinical veterinarians interested in performing animal necropsies for forensic casework. It presents a broad range of animal crime cases, with particular focus on the post mortem examination and the observed pathology. […]

Contents

Fields of Interest
Forensic Science; Veterinary Medicine/Veterinary Science; Forensic Medicine

Proteases and Cancer
Methods and Protocols
S. Cal, A. J. Obaya (Eds)

This volume explores the role of proteases in various catalytic classes and cellular processes associated with cancer. […]

Contents
dissecting Degradomes: Analysis of Protease-Coding Genes.- Identification of Protease Cleavage Sites and Substrates in Cancer by Carboxy-TAILS (C-TAILS).- Identification of Proteolytic Cleavage Sites of EphA2 by Membrane Type-1 Matrix Metalloproteinase on the Surface of Cancer Cells.- Biotin Chasing Assay to Evaluate uPAR Stability and Cleavage on the Surface of Cells. […]

Fields of Interest
Cancer Research

Series Title
Methods in Molecular Biology

Drug-Induced Liver Toxicity
M. Chen, Y. Will (Eds)

This book provides a comprehensive view of the methodologies used for the study of liver toxicity encountered throughout the whole life cycle of a drug, from drug discovery, to clinical trial, post-marketing, and even clinical practice. Organized into six sections, the first section introduces the mechanisms contributing to drug-induced liver toxicity. […]

Contents

Fields of Interest
Pharmacology/Toxicology

Series Title
Methods in Pharmacology and Toxicology
Circular RNAs
Methods and Protocols
C. Dieterich, A. Papantonis (Eds)

This volume provides established approaches for identifying, characterizing, and manipulating circRNAs in vitro, in vivo, and in silico. Chapters highlight the breakthroughs and the challenges in this new field of research. […]

Contents
Detection and Reconstruction of Circular RNAs from Transcriptomic Data.- Deep Computational Circular RNA Analytics from RNA-seq Data.- Genome-wide circRNA Profiling from RNA-seq Data.- Analysis of Circular RNAs using the Web Tool CircInteractome.- Characterization and Validation of Circular RNA and their Host Gene mRNA Expression using PCR. […]

Fields of Interest
Human Genetics

Series Title
Methods in Molecular Biology

January 2018
XIII, 220 p. 50 illus., 33 illus. in color. Hardcover.
178 x 254 mm
£ 76.00 | € 94.99 | $ 119.00
ISBN 978-1-4939-7561-7
All Languages Rights Available

Disease Gene Identification
Methods and Protocols
J. K. DiStefano (Ed)

This volume presents detailed laboratory procedures in an easy to follow format that can be carried out with success by investigators lacking previous exposure to a specific research method. Chapter guide readers through the application of molecular approaches to disease gene identification and overviews, and case studies are also presented. […]

Contents
Identification of Disease Susceptibility Alleles in the Next Generation Sequencing Era.- Induced Pluripotent Stem Cells in Disease Modeling and Gene Identification.- Development of Targeted Therapies Based on Gene Modification.- What can we Learn about Human Disease from the Nematode C. elegans?- Microbiome Sequencing Methods for Studying Human Diseases. […]

Fields of Interest
Human Genetics

Series Title
Methods in Molecular Biology

February 2018
X, 400 p. 63 illus., 50 illus. in color. Hardcover.
178 x 254 mm
£ 88.00 | € 109.99 | $ 139.00
All Languages Rights Available

Impacts of Medications on Male Fertility
J. E. Drobnis, A. K. Nangia

The over-arching goal of this volume is to help infertility practitioners evaluate and manage their patients with poor semen quality. The authors review the existing literature on the effects of medications on male fertility, and provide detailed information about what is known, giving the number of individuals and population characteristics for studies of medication effects on male fertility. […]

Contents
Introduction to Medication Effects on Male Reproduction.- Challenges of obtaining evidence-based information regarding medications and male fertility.- Male Reproductive Functions Disrupted by Pharmacological Agents.- Exogenous Androgens and Male Reproduction.- Phosphodiesterase inhibitors (PDE Inhibitors) and Male Reproduction.- Pain Medications and Male Reproduction. […]

Fields of Interest
Pharmacology/Toxicology; Reproductive Medicine; Laboratory Medicine

Series Title
Advances in Experimental Medicine and Biology

January 2018
155 x 235 mm
£ 124.00 | € 154.99 | $ 189.00
ISBN 978-3-319-69534-1
All Languages Rights Available
Case Studies in Medical Toxicology
From the American College of Medical Toxicology
L. R. Dye, C. Murphy, D. P. Calello, M. D. Levine, A. Skolnik (Eds)

The ACMT National Case Conference (NCC) is a monthly discussion of novel or interesting cases in medical toxicology. Participation is through online webinar, and the conferences are recorded to allow for review at any time. The cases in this book are taken from recordings of NCC with edits and revisions by contributors and editors to demonstrate educational points. [...]

Contents
Case 1: Laundry Pod Ingestion in an Adult.- Case 2: Coma and Metabolic Acidosis.- Case 3: Diet Pill Ingestion in a Child.- Case 4: Salicylate Ingestion.- Case 5: Exotic Snake Envenomation.- Case 6: Medication Error in the Delivery Room.- Case 7: Delirium and Bradycardia Following Opioid Dependency Treatment.- Case 8: Necrotic Skin Lesion.- Case 9: Isoniazid Ingestion. [...]

Fields of Interest
Pharmacology/Toxicology; Emergency Medicine; Intensive / Critical Care Medicine

Written for practitioners of emergency and critical care medicine, this book helps to learn from other case experiences. It includes the best cases from the ACMT National Case Conference (NCC) and uses a template to allow for easy adoption of information into practice. [...]
Computational Methods for GPCR Drug Discovery
A. Heifetz (Ed)

This volume looks at modern computational strategies and techniques used in GPCR drug discovery including structure and ligand-based approaches and cheminformatics. [...] 

Contents

Fields of Interest
Pharmacology/Toxicology

Series Title
Methods in Molecular Biology

Inflammation and Cancer
Methods and Protocols
B. J. Jenkins (Ed)

This volume provides a broad spectrum of research models, techniques, and protocols. [...] 

Contents
In Vivo Models of Inflammatory Bowel Disease and Colitis-Associated Cancer.- Combining Cell Type-Restricted Adenoviral Targeting with Immunostaining and Flow Cytometry to Identify Cells-of-Origin of Lung Cancer.- Utility of Endoscopic Ultrasound-Guided Fine-Needle Aspiration for Preclinical Evaluation of Therapies in Cancer.- Modelling Intestinal Carcinogenesis Using In Vitro Organoid Cultures. [...] 

Fields of Interest
Cancer Research

Series Title
Methods in Molecular Biology

Point-of-care testing
Principles and Clinical Applications
P. Luppa, R. Junker (Eds)

The underlying technology and the range of test parameters available are evolving rapidly. The primary advantage of POCT is the convenience of performing the test close to the patient and the speed at which test results can be obtained, compared to sending a sample to a laboratory and waiting for results to be returned. [...] 

Contents
Definitions and Application Fields.- Role of POCT in the Healthcare system.- Device categories.- Pre- and Postanalytics. 

Fields of Interest
Laboratory Medicine; Anesthesiology; Emergency Medicine; Intensive / Critical Care Medicine; General Practice / Family Medicine; Internal Medicine

December 2017
XI, 436 p. 111 illus., 102 illus. in color. Hardcover. 178 x 254 mm 
£ 88.00 | € 109.99 | $ 139.00
ISBN 978-1-4939-7464-1

All Languages Rights Available

January 2018
XII, 315 p. 16 illus. Hardcover. 178 x 254 mm 
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All Languages Rights Available

July 2018
XXVI, 424 p. 84 illus., 75 illus. in color. Softcover. 168 x 240 mm 
£ 106.50 | € 132.99 | $ 149.00
ISBN 978-3-662-54496-9

All Languages Rights Available
Characterization of Nanoparticles Intended for Drug Delivery
S. E. McNeil (Ed)

This second edition volume expands on the first edition by providing up-to-date protocols to characterize nanomaterials used as drug delivery agents. [..]

Contents
Evaluating Nanomedicines: Obstacles and Advancements.- Detection of Bacterial Contamination in Nanoparticle Formulations by Agar Plate Test.- Considerations and Some Practical Solutions to Overcome Nanoparticle Interference with LAL Assays and to Avoid Endotoxin Contamination in Nanoformulations.- Elemental Analysis in Biological Matrices Using ICP-MS. [..]

Fields of Interest
Pharmacology/Toxicology

Series Title
Methods in Molecular Biology

Preeclampsia
Methods and Protocols
P. Murthi, C. Vaillancourt (Eds)

This volume presents the latest developments and techniques used to study the physiopathology, diagnosis, and treatment of pre-eclampsia. [..]

Contents
Diagnostic Imaging: Ultrasound.- Biomarker Immunoassays in the Diagnosis of Pre-Eclampsia: Calculating the sFlt1:PlGF Ratio Using the Cobas e 411 Analyzer.- Assessing the Circulating Placental Specific Anti-Angiogenic Protein sFLT-1 e15a in Pre-Eclampsia.- Role of Activin A in the Pathogenesis of Endothelial Cell Dysfunction in Pre-Eclampsia.- Genetic Approaches in Pre-Eclampsia. [..]

Fields of Interest
Molecular Medicine

Series Title
Methods in Molecular Biology

Drug Interactions in Infectious Diseases: Antimicrobial Drug Interactions
M. P. Pai, J. J. Kiser, P. O. Gubbins, K. A. Rodvold (Eds)

The 4th edition of Drug Interactions in Infectious Diseases is being split into two separate volumes – "Mechanisms and Models of Drug Interactions" and "Antimicrobial Drug Interactions". This volume, "Antimicrobial Drug Interactions," delivers a quick clinical resource that distills relevant drug interactions by antimicrobial drug class. [..]

Contents

Fields of Interest
Pharmaceutical Sciences/Technology; Infectious Diseases; Pharmacy

Series Title
Infectious Disease
Drug Interactions in Infectious Diseases: Mechanisms and Models of Drug Interactions
M. P. Pai, J. J. Kiser, P. O. Gubbins, K. A. Rodvold (Eds)

The 4th edition of Drug Interactions in Infectious Diseases is being split into two separate volumes – "Mechanisms and Models of Drug Interactions" and "Antimicrobial Drug Interactions". [..]

Contents

Fields of Interest
Pharmaceutical Sciences/Technology; Infectious Diseases; Pharmacy

Series Title
Infectious Disease

March 2018
VIII, 352 p. 6 illus., 5 illus. in color. Hardcover. 155 x 235 mm
£ 92.00 | € 114,99 | $ 129.00
ISBN 978-3-319-72421-8

All Languages Rights Available

Biomarkers for Preclinical Alzheimer’s Disease
R. Perneczky (Ed)

This volume discusses the importance of imaging, fluid, and genetic biomarkers in detecting the earliest pre-symptomatic stages of Alzheimer’s disease (AD). The chapters in this book are separated into five parts. Part one explores the reasons why we need improved approaches for early detection and diagnosis of AD. Part two describes clinical and research techniques for preclinical AD diagnosis. [..]

Contents

Fields of Interest
Neurosciences

Series Title
Neuromethods

March 2018
XIII, 272 p. 39 illus., 31 illus. in color. Hardcover. 178 x 254 mm
£ 76.00 | € 94,99 | $ 119.00
ISBN 978-1-4939-7673-7

All Languages Rights Available

Use of Nanoparticles in Neuroscience
F. Santamaria, X. G. Peralta (Eds)

This volume discusses techniques to synthesize and functionalize nanoparticles, monitor their delivery and uptake, and identify and evaluate their lethal and non-lethal effects on the metabolic activity of the nervous system. The chapters in this book are divided into 4 sections: photo-stimulation, thermal stimulation, mechanical perturbation, and toxicity and physiological effects. [..]

Contents
Optocapacitance Allows for Photostimulation of Neurons without Requiring Genetic Modification.- Nanoparticle-Assisted Localized Optical Stimulation of Cultured Neurons.- Nanoparticle Preparation for Magneto-thermal Genetic Stimulation in Cell Culture and in the Brain of Live Rodents. [..]

Fields of Interest
Neurosciences

Series Title
Neuromethods

January 2018
XVI, 296 p. 98 illus., 66 illus. in color. Hardcover. 178 x 254 mm
£ 76.00 | € 94,99 | $ 119.00

All Languages Rights Available
The Retinoblastoma Protein
P. G. Santiago-Cardona (Ed)

This volume covers the mechanisms of pRb inactivation detailing repressive mechanisms commonly associated to cancer, and representative of the experimentally relevant tests used in the establishment of cancer diagnosis and prognosis. [...] 

Contents

Characterization of RB1 Deletions in Interphase and Metaphase by Molecular Cytogenetics Exemplified in Chronic Lymphatic Leukemia. - Detection of RB1 Gene Copy Number Variations using a Multiplex Ligation-Dependent Probe Amplification Method. - A Fluorescent Quantitative Multiplex PCR Method to Detect Copy Number Changes in the RB1 Gene. [...] 

Fields of Interest

Cancer Research

Series Title

Methods in Molecular Biology

Allergy Prevention and Exacerbation

The Paradox of Microbial Impact on the Immune System

C. B. Schmidt-Weber (Ed)

Allergy is developing into one of the most prevalent diseases affecting individuals in the very early days of life. While the cause of this epidemic is still unclear, it appears that the westernized life style is playing an important role, which includes nutrition, possibly air pollution as well as hygienic conditions. [...] 

Contents

Chapter 1: Overview: The paradox of microbial impact on the immune system in allergy prevention and exacerbation. - Chapter 2: Microbial triggers in Autoimmunity, severe Allergy, and Autoallergy. - Chapter 3: Bacterial allergens. - Chapter 4: Good and bad farming: the right microbiome protects from allergy. - Chapter 5: The lost friend: H. pylori. [...] 

Fields of Interest

Immunology; Allergology; Infectious Diseases; Molecular Medicine

Series Title

Birkhäuser Advances in Infectious Diseases

Comparative Genomics

Methods and Protocols

J. C. Setubal, J. Stoye, P. F. Stadler (Eds)

This volume provides broad coverage of computational and mathematical techniques and concepts related to the field of comparative genomics. The topics covered in the chapters range from those concerned with general techniques and concepts that apply to all organisms to others that are more specialized, covering specific biological systems such as viruses, Drosophila, and Homo sapiens. [...] 

Contents

Gene Phylogenies and Orthologous Groups. - Pan-Genome Storage and Analysis Techniques. - Comparative Genomics for Prokaryotes. - Assembly, Annotation and Comparative Genomics in PATRIC, the All Bacterial Bioinformatics Resource Center. - Phylogenomics. - Comparative Genome Annotation. - A Practical Guide for Comparative Genomics of Mobile Genetic Elements in Prokaryotic Genomes. [...] 

Fields of Interest

Human Genetics

Series Title

Methods in Molecular Biology
Extracellular Recording Approaches
R. V. Sillitoe (Ed)

This volume presents techniques and recently developments in extracellular recording. The chapters in this book explore topics such as mouse, rat and zebrafish models; extracellular recordings on human cognition; single-unit recordings and multi-electrode arrays; and recordings in perinatal and early developing mice. [...] 

Contents
In Vivo Loose-Patch Juxtacellular Labeling of Cerebellar Neurons in Mice.- Targeted Electrophysiological Recordings In Vivo in the Mouse Cerebellum.- Single-Unit Extracellular Recording from the Cerebellum during Eyeblink Conditioning in Head-Fixed Mice.- Multielectrode Arrays for Recording Complex Spike Activity.- Large-Scale Tetrode Recording in the Rodent Hippocampus. [...] 

Fields of Interest
Neurosciences 

Series Title
Neuromethods

Brain Morphometry
G. Spalletta, F. Piras, T. Gili (Eds)

This volume presents the latest methods and approaches used to better characterize the properties of the structural human brain, and also explores various dysfunctional and non-dysfunctional neuroanatomical variations. This book is divided into 3 parts: methods, non-clinical applications, and clinical applications. [...] 

Contents
Registration.- Convolutional Neural Networks for Rapid and Simultaneous Brain Extraction and Tissue Segmentation.- Cortical Thickness.- Surface and Shape Analysis.- The General Linear Model: Theory and Practicalities in Brain Morphometric Analyses.- Relating High-Dimensional Structural Networks to Resting Functional Connectivity with Sparse Canonical Correlation Analysis for Neuroimaging. [...] 

Fields of Interest
Neurosciences 

Series Title
Neuromethods

Optogenetics: A Roadmap
A. Stroh (Ed)

This volume focuses on the optogenetics workflow, and covers topics on viral vectors, targeting strategies, choice on opsins, animal models and readouts, and applications in systems neuroscience. This book shows readers how to identify the critical aspects of each methodological step, and how to determine the necessary level of complexity to address the particular research question. [...] 

Contents
User’s Guide to the Selection of Viral Vectors for Optogenetic Studies.- Cell Type-Specific Targeting Strategies for Optogenetics.- Molecular Engineering of Channelrhodopsin for Enhanced Control over the Nervous System.- Optogenetic Control of Intracellular Signaling: Class II Opsins.- Optogenetics in Stem Cell Research: Focus on the Central Nervous System. [...] 

Fields of Interest
Neurosciences 

Series Title
Neuromethods
This volume focuses on procedures for the development and application of several research animal models and in vitro methods that allow researchers to gain insight into the underlying cellular, biochemical, and physiological mechanisms involved in traumatic and ischemic injury.

Contents

Fields of Interest
Molecular Medicine

Series Title
Methods in Molecular Biology

MicroRNA Protocols
S. Ying (Ed)

This volume focuses on the analysis of miRNA and its many components such as targets and expression profiling, regulation of gene expression, miRNA detection in biofluids, and its application in cancer and wound healing. The chapters in this book explore topics that's cover biogenesis, isolation and profiling of miRNA, exosomal miRNAs, and the study of the functional significance of miRNAs.

Contents

Fields of Interest
Human Genetics

Series Title
Methods in Molecular Biology

Ultraviolet Light in Human Health, Diseases and Environment
S. I. Ahmad (Ed)

This book is about the roles and importance of Ultraviolet (UV) light from sun and from man-made UV lamps in our daily life, on health and diseases, also its application in sterilization and treatment.

Contents
History of UV lamps, types and their applications.- UV light induced generation of reactive oxygen species.- UV-induced molecular signalling skin cancer.- Xeroderma pigmentosum Group A (XPA) irradiation.- Impact of UV light on vitiligo.- Polymorphous light eruption.- Ultraviolet photobiology in dermatology.- UV A-1 in dermatological diseases.

Fields of Interest
Cancer Research; Microbiology; Pathology

Series Title
Advances in Experimental Medicine and Biology

March 2018
XI, 245 p. 72 illus., 56 illus. in color. With online files/update. Hardcover. 178 x 254 mm
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XXIV, 365 p. 85 illus., 52 illus. in color. Hardcover. 178 x 254 mm
£136.00 | €169.99 | $209.00
ISBN 978-3-319-56016-8

All Languages Rights Available
Chromogranins: from Cell Biology to Physiology and Biomedicine
T. Angelone, M. C. Cerra, B. Tota (Eds)

The volume is designed to provide an integrated overview of the results from the last fifteen years of research on Chromogranins in relation to cell biology, physiology and biomedicine. [...]

Contents
Chromaffin cells and Granins: History and Perspectives.- The extended granin family: structure, function, and biomedical implications.- CgA and CgB in granule secretion.- Proteolytic processing of CgA and CgB/Antimicrobial properties of Chromogranins.- Chromogranins and inositol 1,4,5-trisphosphate-dependent Ca2+-signaling.- CgA in angiogenesis and tumor biology. [...]

Fields of Interest
Human Physiology; Molecular Medicine

Series Title
UNIPA Springer Series

Zic family
Evolution, Development and Disease
J. Aruga (Ed)

This book provides a comprehensive overview of ZIC-family research. Part1 summarizes the ZIC family in animal evolution and development and presents an overall picture of the ZIC family gene structure in eumetazoan animals, providing an evolutionary hypothesis and reviewing the studies on the role of ZIC family proteins in developmental processes for each animal model. [...]

Contents

Fields of Interest
Neurosciences; Evolutionary Biology; Cancer Research; Developmental Biology; Neurobiology

Series Title
Advances in Experimental Medicine and Biology

November 2017
IX, 267 p. 16 illus., 4 illus. in color. Hardcover.
155 x 235 mm
£ 124,00 | € 154,99 | $ 189.00
ISBN 978-3-319-58337-2

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February 2018
X, 380 p. 105 illus., 69 illus. in color. Hardcover.
155 x 235 mm
£ 136,00 | € 169,99 | $ 209.00
ISBN 978-981-10-7310-6

All Languages Rights Available

Animal Models of Neurological Disorders
Principle and Working Procedure for Animal Models of Neurological Disorders
P. K. Bansal, R. Deshmukh (Eds)

This book introduces undergraduate, postgraduate and research students and scientists to animal models of neurological disorders, along with their working principle and brief procedures. [...]

Contents

Fields of Interest
Neurosciences; Animal Models; Neurobiology; Pharmacology/Toxicology

February 2018
XVIII, 343 p. 68 illus., 45 illus. in color. Hardcover.
155 x 235 mm
£ 136,00 | € 169,99 | $ 209.00

All Languages Rights Available
Gynecologic malignancies, especially endometrial and ovarian cancers are among the most important and most severely affected by obesity. [...] 

Contents 

Fields of Interest 
Cancer Research; Gynecology

Series Title 
Energy Balance and Cancer

November 2017 
XIII, 312 p. 17 illus., 15 illus. in color. Hardcover. 155 x 235 mm  
£ 136.00 | € 169.99 | $ 209.00  
ISBN 978-3-319-63482-1  
All Languages Rights Available

The Leishmaniases: Old Neglected Tropical Diseases 
F. Bruschi, L. Gradoni (Eds)

Out of the 20 neglected tropical diseases (NTDs) prioritized by the World Health Organization, the leishmaniases rank in the top 3 among those caused by protozoa. [...] 

Contents 
Introduction to epidemiology.- Leishmania taxonomy.- Parasite biology: the vectors.- Parasite biology: the reservoir hosts.- Immunological and immunopathological aspects.- Clinical aspects in immunocompetent and immunocompromised patients.- Diagnosis.- Treatment of visceral leishmaniasis.- Treatment of tegumentary forms of leishmaniasis.- Control and public health aspects.

Fields of Interest 
Parasitology; Infectious Diseases; Medical Microbiology; Immunology

January 2018 
IX, 245 p. 30 illus., 29 illus. in color. Hardcover. 155 x 235 mm  
£ 124.00 | € 154.99 | $ 189.00  
ISBN 978-3-319-72385-3  
All Languages Rights Available

Next Generation Point-of-care Biomedical Sensors Technologies for Cancer Diagnosis 
P. Chandra, Y. N. Tan, S. P. Singh (Eds)

This book presents recent research on cancer detection methods based on nanobiosensors, which offer ultrasensitive point-of-care diagnosis. Several methods for diagnosing cancer have been discovered and many more are currently being developed. [...] 

Contents 
Cancer Biomarkers: Important Tools for Cancer Diagnosis and Prognosis.- Transcription factors as detection and diagnostic biomarkers in cancer.- Cancer biomarkers immunosensing strategies based on graphene surface engineered materials.- Label-free biosensors for early diagnosis of cancer based on G-quadruplex and isothermal amplification. [...] 

Fields of Interest 
Cancer Research; Biomedical Engineering/Biotechnology; Biological Techniques; Nanotechnology and Microengineering; Nanochemistry

January 2018 
XII, 396 p. 164 illus., 149 illus. in color. Hardcover. 155 x 235 mm  
£ 136.00 | € 169.99 | $ 209.00  
ISBN 978-981-10-4725-1  
All Languages Rights Available
Nuclear Pore Complexes in Genome Organization, Function and Maintenance
M. D’Angelo (Ed)

The three-dimensional organization of the DNA inside the eukaryotic cell nucleus has emerged as a critical regulator of genome integrity and function. [...] 

Contents
Spatial Organization of the Nucleus Compartmentalizes and Regulates the Genome.- The Molecular Composition and Function of the Nuclear Periphery and Its Impact on the Genome.- Nuclear Pore Complexes: Fascinating Nucleocytoplasmic Checkpoints.- Nuclear Pore Complex in Genome Organization and Gene Expression in Yeast.- Nuclear Pore Complex in Genome Organization and Gene Expression in Drosophila. [...] 

Fields of Interest
Gene Function; Gene Expression; Cell Biology

The Pulvinar Thalamic Nucleus of Non-Human Primates: Architectonic and Functional Subdivisions
R. Gattass, J. G.M. Soares, B. Lima

This book discusses the hypothesis that the primate pulvinar contains an original scaffold, which is derived from cytoarchitectural markers and specific protein distributions. Thereafter, along primate evolution, different selective pressures acted in order to shape and fine-tune the connectivity of the pulvinar with specific regions of the neocortex. [...] 

Contents
Chapter 1: Introduction.- Chapter 2: Cytoarchitecture and Myeloarchitecture of the Pulvinar.- Chapter 3: Chemoarchitecture of the Pulvinar.- Chapter 4: Visual Map Representations in the Primate Pulvinar.- Chapter 5: Connectivity of the Pulvinar.- Chapter 6: Reestablishing the Chemoarchitectural Borders Based on Electrophysiological and Connectivity Data. [...] 

Fields of Interest
Neurosciences; Evolutionary Biology

Medicinal Plants and Environmental Challenges
M. Ghorbanpour, A. Varma (Eds)

This book sheds new light on the role of various environmental factors in regulating the metabolic adaptation of medicinal and aromatic plants. Many of the chapters present cutting-edge findings on the contamination of medicinal plants through horizontal transfer, as well as nanomaterials and the biosynthesis of pharmacologically active compounds. [...] 

Contents
Importance of Medicinal and Aromatic Plants in the Life of Human and Environmental Ecosystems.- Introduction to Environmental Challenges all over the World.- Rarity of Endemic Medicinal Plants and Role of Herbaria for their Conservation against Environmental Challenges.- Metabolic Responses of Medicinal Plants to Global Warming, Temperature and Heat Stress. [...] 

Fields of Interest
Pharmacology/Toxicology; Plant Sciences; Ecology

February 2018
VIII, 240 p. 32 illus. in color. Hardcover. 155 x 235 mm
£ 124.00 | € 154.99 | $ 189.00
ISBN 978-3-319-71612-1

All Languages Rights Available

November 2017
VII, 66 p. 29 illus., 9 illus. in color. Softcover. 155 x 235 mm
£ 88.00 | € 109.99 | $ 139.00
ISBN 978-3-319-70045-8

All Languages Rights Available

February 2018
VI, 413 p. 46 illus., 32 illus. in color. Hardcover. 155 x 235 mm
£ 136.00 | € 169.99 | $ 209.00
ISBN 978-3-319-68716-2

All Languages Rights Available
Microbial Toxins
B. Stiles, A. Alape-Girón, J. D. Dubreuil, M. Mandal (Eds)

This volume provides an overview of microbial toxins from diverse bacterial and fungal origins. These molecules, produced by various species and consisting of protein or small organic molecules, can play a pivotal role in pathogenesis of plants, animals, and humans that in turn can lead to the survival/dissemination of the host microbe. [..]

Contents
s Association Between Structure and Toxicity of Enterotoxigenic Escherichia coli (ETEC).- Heat-Stable Toxin Ib (STa).- Bacillus anthracis Toxins: Efficient Biochemical Weapons for the Infectious Battle.- Bacterial Genotoxins.- Bacterial Pore-Forming Toxin in Macromolecule Delivery: A Lesson Learned from Listeriolysin O.- Chaperones and ADP-ribosylating Bacterial Toxins. [..]

Fields of Interest
Biomedicine, general

Series Title
Toxinology

January 2018
XXVI, 502 p. 77 illus., 59 illus. in color. Hardcover. 155 x 235 mm
£ 179,50 | € 259,00 | $ 299.00
ISBN 978-94-007-6448-4

All Languages Rights Available

Clinical Toxinology in Australia, Europe, and Americas
C. Vogel, S. A. Seifert, D. V. Tambourgi (Eds)

This handbook addresses various topics on clinical toxinology such as the epidemiology and management of snake and insect bites in Australia and different countries in Europe and the Americas. Chapters will be written by experts currently working in the subspecialty, many of whom have first-hand experience in the relevant research fields. [..]

Contents

Fields of Interest
Pharmacology/Toxicology; Animal Biochemistry

Series Title
Toxinology

March 2018
XXV, 490 p. 108 illus., 103 illus. in color. Hardcover. 155 x 235 mm
£ 199,99 | € 249,99 | $ 299.99
ISBN 978-94-017-7436-9

All Languages Rights Available

Clinical Toxinology in Australia, Europe, and Americas
C. Vogel, S. A. Seifert, D. V. Tambourgi (Eds)

This handbook addresses various topics on clinical toxinology such as the epidemiology and management of snake and insect bites in Australia and different countries in Europe and the Americas. Chapters will be written by experts currently working in the subspecialty, many of whom have first-hand experience in the relevant research fields. [..]

Contents

Fields of Interest
Pharmacology/Toxicology; Animal Biochemistry

Series Title
Toxinology

March 2018
XXV, 490 p. 108 illus., 103 illus. in color. Print + eReference. Hardcover. 155 x 235 mm
£ 311,50 | € 389,00 | $ 469.00
ISBN 978-94-017-7437-6

All Languages Rights Available
Clinical Toxinology in Australia, Europe, and Americas
C. Vogel, S. A. Seifert, D. V. Tambourgi (Eds)

This handbook addresses various topics on clinical toxinology such as the epidemiology and management of snake and insect bites in Australia and different countries in Europe and the Americas. Chapters will be written by experts currently working in the subspecialty, many of whom have first-hand experience in the relevant research fields. [...]"}

Contents

Fields of Interest
Pharmacology/Toxicology; Animal Biochemistry

Series Title
Toxinology

5-HT2A Receptors in the Central Nervous System
B. P. Guiard, G. Di Giovanni (Eds)

5-HT2A receptors are G-protein coupled receptors that are widely distributed throughout the brain, most notably on neuronal and glial cells. 5-HT2A receptors have been implicated in various central physiological functions including mood regulation, memory, sleep, nociception, eating, and reward behaviors, and they are also believed to control the cardiovascular system. [...]"}

Contents
Pharmacological analysis in favour of a physiological role for the constitutive activity of 5-HT2A receptors in learning.- βArrestins: Ligand-directed regulators of 5-HT2A receptor trafficking and signaling events.- 5-HT2A receptor heterodimerization Brain distribution.- PET imaging of the 5-HT2A receptor system: A tool to study the receptor’s in vivo brain function. [...]"}

Fields of Interest
Neurosciences; Neurobiology

Series Title
The Receptors

Biology of Chlamydia
G. Häcker (Ed)

The genus Chlamydia encompasses a number of species of obligate intracellular bacteria, including important human pathogens like the most common bacterial agent of sexually transmitted disease. This volume reviews current knowledge of chlamydial biology, covering the unusual structure of the bacteria – which alternate between metabolically almost inactive and fast-dividing forms. [...]"}

Contents
Cell wall biosynthesis in Chlamydia.- Genetic manipulation in Chlamydia.- Early events in the Chlamydia developmental cycle.- Subversion of the host cell cytoskeleton by Chlamydia.- Cell-autonomous host defence against Chlamydia infection.- The enigma of long-term infection: are there quiescent or ‘persistent’ Chlamydia?- Mechanisms of immunopathogenesis during chlamydial infections. [...]"}

Fields of Interest
Medical Microbiology; Immunology; Infectious Diseases

Series Title
Current Topics in Microbiology and Immunology

March 2018
108 illus., 103 illus. in color. eReference. 155 x 235 mm
£ 207.50 | € 259.00 | $ 319.00 ISBN 978-94-017-7438-3

All Languages Rights Available

March 2018
XII, 446 p. 44 Illus., 41 Illus. in color. Hardcover. 155 x 235 mm
£ 160.00 | € 199.99 | $ 239.00 ISBN 978-3-319-70472-2

All Languages Rights Available

March 2018
Approx. 200 p. Hardcover. 155 x 235 mm
£ 124.00 | € 154.99 | $ 189.00 ISBN 978-3-319-71230-7

All Languages Rights Available
Polycyclic Aromatic Hydrocarbons
Environmental Behavior and Toxicity in East Asia
K. Hayakawa (Ed)

This book reviews Polycyclic Aromatic Hydrocarbons (PAHs) and Nitropolycyclic Aromatic Hydrocarbons (NPAHs) contamination in the context of environmental pollution in Asia. [...]  

Contents
Part 1. Introduction.- Introduction.- Part 2. Physical and Chemical Characteristics.- Physical Parameters of PAHs/NPAHs/Oxidative Derivatives.- Chemistry of PAHs/NPAHs/Oxidative Derivatives (structures/name/numbering by IUPAC).- Part 3. Analytical Method.- PAHs/NPAHs (including Application to Environmental Samples).- PAHOHs/PAHQs (including application to biological samples). [...]  

Fields of Interest
Pharmacology/Toxicology; Ecotoxicology; Medicinal Chemistry

Formaldehyde and Cognition
R. He

This book introduces important, new knowledge regarding formaldehyde, especially endogenous formaldehyde, revealing its many key roles in the human body. [...]  

Contents
Formaldehyde from environment.- Anabolism and metabolism of formaldehyde in vivo.- Formaldehyde playing a role in (de)methylation for memory.- Dehydration, formaldehyde and age-related cognitive impairment.- The role of formaldehyde in cell proliferation and death.- Gut microbiota, formaldehyde dysmetabolism, and cognitive impairment. [...]  

Fields of Interest
Neurosciences; Pharmacology/Toxicology; Cell Biology

The Multiple Inert Gas Elimination Technique (MIGET)
S. R. Hopkins, P. D. Wagner

The Multiple Inert Gas Elimination Technique (MIGET) is a complex methodology involving specialized gas chromatography and sophisticated mathematics developed in the early 1970’s. [...]  

Contents

Fields of Interest
Human Physiology; Pneumology/Respiratory System; Sports Medicine

Series Title
Methods in Physiology
Behavioral Pharmacology of Neuropeptides: Oxytocin
R. Hurlemann, V. Grinevich (Eds)

This volume collects cutting-edge expert reviews in the oxytocin field and will be of interest to a broad scientific audience ranging from social neuroscience to clinical psychiatry. The role of the neuropeptide oxytocin in social behaviors is one of the earliest and most significant discoveries in social neuroscience. 

Contents
Preface.- Part 1 Human Research. [...] 

Fields of Interest
Neurosciences; Psychiatry; Behavioral Sciences; Endocrinology 

Series Title
Current Topics in Behavioral Neurosciences

November 2017
XXI, 590 p. 100 illus., 30 illus. in color. Hardcover. 155 x 235 mm
£ 160.00 | € 199.99 | $ 239.00
ISBN 978-3-319-63738-9
All Languages Rights Available

Neuroanatomy for the Neuroscientist
S. Jacobson, E. M. Marcus, S. Pugsley

The purpose of this textbook is to enable a Neuroscientist to discuss the structure and functions of the brain at a level appropriate for students at many levels of study including undergraduate, graduate, dental or medical school level. [...] 

Contents

Fields of Interest
Neurosciences; Neurology; Anatomy

November 2017
XXI, 689 p. 333 illus., 140 illus. in color. Hardcover. 155 x 235 mm
£ 44.99 | € 49.99 | $ 59.99
ISBN 978-3-319-60185-4
All Languages Rights Available

Light and Specular Microscopy of the Cornea
K. Jirsova

The atlas of the Light and Specular Microscopy of the Cornea, particularly of the corneal endothelium presents photographs of healthy and pathological corneas, as well as corneas prepared for grafting. Photographs are taken from donor or patient’s corneas. [...] 

Contents

Fields of Interest
Human Physiology; Ophthalmology; Biological Microscopy

February 2018
XVIII, 217 p. 245 illus., 186 illus. in color. Hardcover. 155 x 235 mm
£ 140.00 | € 174.99 | $ 219.00
ISBN 978-3-319-48843-1
All Languages Rights Available
The existence of living organisms in diverse ecosystems has been the focus of interest to human beings, primarily to obtain insights into the diversity and dynamics of the communities. [...]

Contents
Biomechanics, Muscle Fibers, and How to Interface Experimental Apparatus to a Computer

M. Kawai

This book is written to help and enable students in how to observe biological specimens in terms of viscosity, mass, elasticity and work producing elements. The observations are related to underlying chemical reactions by means of strain (fractional length change) sensitivity of the reactions, and a theory is developed how to connect these. […]

Contents
Basic elements of viscoelasticity.- Reaction processes (chemical kinetics) and their application to muscle biology.- How to characterize chemical reactions occurring in muscle fibers?- Structure and function of muscle cells.- Mathematics needed to solve problems of contraction.- Computer interfacing of experimental apparatus.- Appendices.

Fields of Interest
Human Physiology; Biological Techniques

Inflammation, Aging and Cancer

Biological Injustices to Molecular Village of Immunity that Guard Health

M. Khatami

This book was prepared as extension of author’s accidental discoveries on experimental models of acute and chronic ocular inflammatory diseases that were established at the University of Pennsylvania in 1980’s. Analyses of original data suggest a series of first evidence for direct link between inflammation and developmental phases of immune dysfunction in multistep tumorigenesis and angiogenesis. […]

Contents
Preface.- Introduction to Interrelated Biology of Age-Associated Chronic Diseases and Cancer: Chronic Inflammation, a Common Denominator in Morbidity and Mortality.- Immune Surveillance in Health and Diseases of Aging: Definitions of Acute and Chronic Inflammation Yin and Yang of Immunity.- Theories of Aging and Chronic Disease: ‘Roadmap’ to Chronic Illnesses. […]

Fields of Interest
Cancer Research

Developmental Origins of Health and Disease (DOHaD)

From Biological Basis to Clinical Significance

T. Kubota, H. Fukuoka (Eds)

This book addresses the developmental origins of health and disease (DOHaD), a new medical concept that demonstrates that various adult diseases start in the fetal period. […]

Contents
Part 1 Biological Basis.- One carbon metabolism and lipid metabolism in DOHaD.- Novel models of epigenetic gene regulation in the nutritional environment.- Epigenetic switching and neonatal nutritional environment.- Part 2 Disease and environment.- Developmental Origins of Non-Alcoholic Fatty Liver Disease (NAFLD).- Fetal origins of hypertension. […]

Fields of Interest
Human Physiology; Reproductive Medicine; Developmental Biology

Series Title
Advances in Experimental Medicine and Biology

February 2018
XX, 120 p. 46 illus. Hardcover. 155 x 235 mm
£ 88.00 | € 109.99 | $ 139.00
ISBN 978-3-319-72034-0

All Languages Rights Available

February 2018
XVI, 389 p. 57 illus., 52 illus. in color. Hardcover. 155 x 235 mm
£ 136.00 | € 169.99 | $ 209.00
ISBN 978-3-319-66473-6

All Languages Rights Available

July 2018
Approx. 350 p. 80 illus. in color. Hardcover. 155 x 235 mm
£ 136.00 | € 169.99 | $ 209.00
ISBN 978-981-10-5525-6

All Languages Rights Available
Marburg- and Ebolaviruses
From Ecosystems to Molecules
E. Mühlberger, L. L. Hensley, J. S. Towner (Eds)

This volume provides an overview of recent advances in our understanding of the biology of marburg- and ebolaviruses. It focuses on four essential areas: 1) ecology, outbreaks and clinical management, 2) disease, pathogenesis and protection, 3) virus replication inside the cell, and 4) molecular tools for virus study and taxonomy. […]

Contents

Fields of Interest
Virology; Infectious Diseases; Epidemiology

Series Title
Current Topics in Microbiology and Immunology

Technology Advances in Organ Transplantation
S. N. Nadig, J. A. Wertheim (Eds)

This book provides an expert view into the current technologies that are revolutionizing the field of solid organ transplantation. This unique book provides insight into progress made in areas spanning robotic surgery to tissue engineering and also gives a glimpse into what may lie ahead for this innovative specialty. […]

Contents

Fields of Interest
Biomedical Engineering/Biotechnology; Biomedical Engineering; Stem Cells

Series Title
Advances in Anatomy, Embryology and Cell Biology

Biology and Pathology of Perineuronal Satellite Cells in Sensory Ganglia
E. Pannese

This volume provides a comprehensive and updated review of perineuronal satellite cells in sensory ganglia. For a long time since their discovery by Valentin in the first half of the 19th century these cells received only modest attention. However, some years ago research findings suggested that satellite cells play a role in the development and maintenance of neuropathic pain. […]

Contents

Fields of Interest
Neurosciences; Pain Medicine

Series Title
Advances in Anatomy, Embryology and Cell Biology

Jan 2018
X, 460 p. Hardcover. 155 x 235 mm
£ 136.00 | € 169.99 | $ 209.00
ISBN 978-3-319-68946-3

All Languages Rights Available

March 2018
XIV, 313 p. 69 illus., 56 illus. in color. Hardcover. 155 x 235 mm
£ 136.00 | € 169.99 | $ 209.00
ISBN 978-3-319-62141-8

All Languages Rights Available

Feb 2018
X, 81 p. 34 illus., 3 illus. in color. Softcover. 155 x 235 mm
£ 88.00 | € 109.99 | $ 139.00
ISBN 978-3-319-60139-7

All Languages Rights Available
We present an in-depth description of resistance to targeted therapies in breast cancer. Targeted therapies discussed here include those used to treat ER+ or Her2+ breast cancers (i.e., Tamoxifen or trastuzumab) or those targeting signaling pathways aberrantly activated in triple negative breast cancer (i.e., EGFR and Wnt signaling). [...]

Contents
Invasive Breast Cancer Therapy 2017: How Well Are We Hitting The Target?.
- Resistance to HER2-targeted therapy.
- Endocrine Resistance and Breast Cancer Stem Cells – The Inflammatory Connection That Could Aberrantly Activate in triple negative breast cancer (i.e., EGFR and Wnt signaling).
- Targeting FGFR for the treatment of breast cancer.
- Targeted Therapies in Breast Cancer. [...]

Fields of Interest
Cancer Research

Series Title
Resistance to Targeted Anti-Cancer Therapeutics

December 2017
XV, 184 p. 12 illus. in color. Hardcover.
155 x 235 mm
£ 124.00 | € 154.99 | $ 189.00
ISBN 978-3-319-70141-7

All Languages Rights Available

Focusing on the application of nanotechnology in pharmaceutical technology the editors seek to integrate the two in order to obtain innovative products and solutions in pharmacology. Interdisciplinary in content it is of interest to those who are involved in the development of nanoproducts including nanotechnologists, microbiologists, biotechnologists pharmacologists and clinicians. [...]

Contents
Section 1. General.
- Bio-Inspired Metal Nanoparticles with Special Reference to Mechanism.
- Bio-Inspired Metal Nanoparticles with Special Reference to Mechanism.
- Nanoliposomes as a Platform to Deliver Antimicrobials.
- Metal Oxide Nanoparticles in Medicine: Progress and Limitations.
- Nanotechnology: A Tool For Targeted Drug Delivery.
- Pharmaceutical Applications of Curcumin-Loaded Nanoparticles. [...]

Fields of Interest
Pharmaceutical Sciences/Technology

December 2017
XIV, 386 p. 55 illus., 48 illus. in color. Hardcover.
155 x 235 mm
£ 160.00 | € 199.99 | $ 239.00
ISBN 978-3-319-70298-8

All Languages Rights Available

This book is focused on the analysis of the role played by immune cell components in the angiogenic process associated with inflammation and tumor growth. Both innate and adaptive immune cells are involved in the mechanisms of endothelial cell proliferation, migration and activation, through the production and release of a large spectrum of pro-angiogenic mediators. [...]

Contents
Preface.
- Introduction.
- The importance of microenvironment in tumor metastases.
- Immune cells.
- Lymphocyte homing.
- Inflammation and cancer.
- Inflammation and angiogenesis.
- The contribution of immune cells to angiogenesis in inflammation and tumor growth.
- Conclusions.
- References.
- Index.

Fields of Interest
Cancer Research

November 2017
VIII, 111 p. 36 illus., 24 illus. in color. Hardcover.
155 x 235 mm
£ 88.00 | € 109.99 | $ 139.00
ISBN 978-3-319-68447-5

All Languages Rights Available
Sentiment Analysis in the Bio-Medical Domain
Techniques, Tools, and Applications
R. Satapathy, E. Cambria, A. Hussain

The abundance of text available in social media and health-related forums and blogs have recently attracted the interest of the public health community to use these sources for opinion mining. This book presents a lexicon-based approach to sentiment analysis in the bio-medical domain, i.e., WordNet for Medical Events (WME).

Contents
Introduction.- Literature Survey.- SenticNet.- Contribution to Sentiment Analysis.- Conclusion and Future Work.- Index.

Fields of Interest
Biomedicine, general; Computational Intelligence; Computer Science, general

Series Title
Socio-Affective Computing
TCTP/tpt1 - Remodeling Signaling from Stem Cell to Disease
A. Telerman, R. Amson (Eds)

This book highlights the role of the Translationally Controlled Tumor Protein (TCTP) in cell signaling, cell fate and the resulting connection to disease development. [...] 

Contents
1 Introduction: How we encountered TCTP and our purpose in studying it. 
2 Structural insights into TCTP and its interactions with ligands and proteins. 
3 Structure-Function relationship of TCTP. 
4 The Translational Controlled Tumour Protein TCTP: Biological Functions and Regulation. 
5 Current understanding of the TCTP interactome. 
6 Role and fate of TCTP in protein degradative pathways. [...] 

Fields of Interest
Cancer Research; Protein Structure; Stem Cells; Cell Cycle Analysis; Apoptosis 

Series Title
Results and Problems in Cell Differentiation

December 2017 
X, 309 p. 51 illus., 36 illus. in color. Hardcover. 
155 x 235 mm 
£ 126.00 | € 156.99 | $ 189.00 
ISBN 978-3-319-67590-9 
All Languages Rights Available

Memory in a Social Context
Brain, Mind, and Society
T. Tsukiura, S. Umeda (Eds)

This book explores new points of view of human memory in the link among mind, brain, and society. Research of human memory traditionally has been in the field of experimental psychology, and a number of psychological researchers have come upon important findings regarding human memory. [...] 

Contents
Part I Basic Approach for Human Memory. 
1 Experimental Psychology Approaches to Human Memory. 
2 Functional Neuroimaging Approaches to Human Memory. 
Part II Interacting Mechanisms of Human Memory with Social Cognition. 
3 Psychological and Neural Functions of Working Memory in Social Contexts. 
4 Neural Mechanisms Underlying the Effects of Emotional Arousal on Memory. [...] 

Fields of Interest
Neurosciences; Cognitive Psychology; Neurology

Series Title
Advances in Experimental Medicine and Biology

November 2017 
IX, 284 p. 47 illus., 26 illus. in color. Hardcover. 
155 x 235 mm 
£ 136.00 | € 169.99 | $ 209.00 
ISBN 978-3-319-62815-8 
All Languages Rights Available

The Plastic Brain
R. von Bernhardi, J. Eugenín, K. J. Muller (Eds)

A comprehensive overview of the many factors that can influence brain plasticity throughout the lifespan. Addresses perinatal plasticity, functional state plasticity, injury-induced plasticity, and stressor-induced plasticity. Because it looks at so many aspects of the field, this volume will serve as a great resource for students as well as researchers interested in expanding their knowledge. [...] 

Contents
What is neural plasticity?. 
Part I: Neural plasticity in learning and memory. 
CREB at the crossroad of activity-dependent regulation of nervous system development and function. 
Models of short term synaptic plasticity. 
Plasticity in the interoceptive system. 
Learning as a functional state of the brain: studies in wild-type and transgenic animals. [...] 

Fields of Interest
Neurosciences

Series Title
Advances in Experimental Medicine and Biology

November 2017 
IX, 284 p. 47 illus., 26 illus. in color. Hardcover. 
155 x 235 mm 
£ 136.00 | € 169.99 | $ 209.00 
ISBN 978-3-319-62815-8 
All Languages Rights Available
Emerging Concepts Targeting Immune Checkpoints in Cancer and Autoimmunity
A. Yoshimura (Ed)

This volume reviews the current state of research on immune checkpoints and offers novel concepts. It discusses the two most important immune checkpoints: T lymphocyte-associated antigen-4 (CTLA-4) and programmed cell death-1 (PD-1). [...]

Contents
Regulatory T cells: molecular and cellular basis for immunoregulation.- Overview of LAG-3- expressing, IL-10-producing regulatory T cells.- Regulatory Dendritic Cells.- Role of PD-1 in immunity and diseases.- CTLA-4, an essential immune-checkpoint for T cell activation.- Tim-3, Lag-3, and TIGIT.- SOCS1: regulator of T cells in autoimmunity and cancer. [...]

Fields of Interest
Immunology; Cancer Research; Cell Biology

Series Title
Current Topics in Microbiology and Immunology
Springer Nature advances discovery by publishing robust and insightful research, supporting the development of new areas of knowledge and making ideas and information accessible around the world.