

I. Ahmad, M. Owais, M. Shahid, F. Aqil (Eds.)

## Combating Fungal Infections Problems and Remedy

The currently available means of combating fungal infections are weak and clumsy. The application of fungal genomics offers an unparalleled opportunity to develop novel antifungal drugs. Interestingly, several novel antifungal drug targets have already been identified and validated. However, it is premature to expect a novel antifungal agent in clinical setting as drug discovery programs are still in their infancy. In addition to classical and genomic approaches to drug discovery, treasure trove based on natural products and phyto-medicine can provide a multitude of alternative modes of combating fungal infection. This book incisively addresses essential topics on various aspects pertaining to fungal diseases in human and animals, their reservoir, fungal pathogenesis, their management and recent advances in their treatment. Issues of antifungal drug toxicity, especially nephrotoxicity, are also discussed.

### Features

► Unique as it gives an overall comprehensive holistic ► Approach and recent developments in combating fungal infections ► Special focus is given to the management of pulmonary mycoses in stem cell transplantation ► Issues of antifungal drug toxicity are discussed

### From the contents

Mould Infections: A global Threat to Immunocompromised Patients.- Virulence and Pathogenicity of Fungal Pathogens with Special Reference to *Candida albicans*.- Animal as Reservoir of Fungal Diseases (Zoonoses).- Fungi Associated with Eye Infections with Special Reference to Corneal Keratitis and Their Possible Reservoir.- Antifungal Drugs: Mode of Action and Recent Development.- Antifungal-induced Nephrotoxicity in Pediatrics: A State of Art.

### Fields of interest

Medical Microbiology; Microbiology; Immunology

### Target groups

Research

### Type of publication

Monograph

 Biomedical and Life Sciences

*Due June 2010*

2010. XV, 505 p. Hardcover

► **approx. € 169,95 | £153.00**  
► **approx. \* € (D) 181,85 | € (A) 186,94 | sFr 264,00**  
ISBN 978-3-642-12172-2



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I. Capua, D. J. Alexander (Eds.)

## Grippe aviaire et maladie de Newcastle

### Features

► Un ouvrage essentiel pour apprendre à gérer une épizootie ► Des renseignements détaillés et actualisés pour poser le diagnostic de la maladie ► Des images remarquables présentant les résultats cliniques et pathologiques

### Fields of interest

Laboratoire de médecine; Veterinary Medicine; Infectiologie

### Target groups

Professional/practitioner

### Type of publication

Monographie

 Biomedical and Life Sciences

*A paraître avril 2010*

2010. Env. 250 p. Avec DVD. Broché

► **approx. € 80,57 | £72.50**  
► **approx. \* € (D) 86,21 | € (A) 88,63 | sFr 125,00**  
ISBN 978-2-287-99336-7



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G. D. Dakubo, Thunder Bay, ON, Canada

## Mitochondrial Genetics and Cancer

The pivotal role of mitochondrial functions in carcinogenesis is quite well established. However, the critical role of mitochondrial genome alterations to cancer development is muted in traditional textbooks. Recent scientific efforts have provided unequivocal evidence for mitochondrial genome mutations and content changes in cancer development, progression, and therapy. This pioneering book is a unique compilation of mitochondrial genome alterations in cancer.

While primarily focused on the emerging role of mitochondrial genome changes, bioenergetics and signaling pathways, attention is also given to the metabolic transformations of the cancer cell, as well as the established altered cell death processes that underlie cancer evolution and treatment resistance.

### Fields of interest

Human Genetics; Molecular Medicine; Cancer Research

### Target groups

Research

### Type of publication

Monograph

 Biomedical and Life Sciences

*Due April 2010*

2010. 350 p. 62 illus., 31 in color. Hardcover

► **approx. € 149,95 | £135.00**  
► **approx. \* € (D) 160,45 | € (A) 164,95 | sFr 233,00**  
ISBN 978-3-642-11415-1



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T. Jue, University of California Davis, Davis, CA, USA (Ed.)

## Biomedical Applications in Biophysics

In keeping with goal and style of the Handbook in Modern Biophysics series, the proposed book will maintain a chapter structure that contains two parts: concepts and biological application. The book also integrates all the chapters into a smooth, continuous discourse. The first and second chapters establish the mathematical methods and theoretical framework underpinning the different topics in the rest of the book. Other chapters will use the theoretical framework as a basis to discuss optical and NMR approaches. Each chapter will contain innovative didactic elements that facilitate teaching, self-study, and research preparation (key points, summary, exercise, references).

### Contents

Concepts in Protein Folding. Local Membrane Structure and Dynamics.- Raman Spectroscopy in Biology.- Fluorescence Resonance Energy Transfer as a Molecular Ruler.- Time Resolved Fluorescence Spectroscopy.- Fluorescence Imaging of Intracellular Ca SUP 2+ /SUP Dynamics.- High Resolution NMR Study of Ca SUP 2+ /SUP Sensing Proteins.- NMR Investigation of Paramagnetic Molecules.

### Fields of interest

Biophysics and Biological Physics; Biochemistry, general; Optics, Optoelectronics, Plasmonics and Optical Devices

### Target groups

Professional/practitioner

### Type of publication

Contributed volume

M. Lyte, Texas Tech University Health Sciences Center, Lubbock, TX, USA; P. P. Freestone, Leicester University, Leicester, UK (Eds.)

## Microbial Endocrinology

### Interkingdom Signaling in Infectious Disease and Health

Microbial endocrinology represents a newly emerging interdisciplinary field that is formed by the intersection of the fields of neurobiology and microbiology. This book will introduce a new perspective to the current understanding not only of the factors that mediate the ability of microbes to cause disease, but also to the mechanisms that maintain normal homeostasis. The discovery that microbes can directly respond to neuroendocrine hormones, as evidenced by increased growth and production of virulence-associated factors, provides for a new framework with which to investigate how microorganisms interface not only with vertebrates, but also with invertebrates and even plants. The reader will learn that the neuroendocrine hormones that one most commonly associates with mammals are actually found throughout the plant, insect and microbial communities to an extent that will undoubtedly surprise many.

### Features

► The first comprehensive book in the field of microbial endocrinology ► Provides new insight into the interactions between microbes and hormones ► Research into this area has widespread implications for medicine and industry, including drug development

### Fields of interest

Medical Microbiology; Immunology; Neurobiology

### Target groups

Research

### Type of publication

Contributed volume

E. Michael, Imperial College London, London, UK; R. C. Spear, University of California, Berkeley, CA, USA (Eds.)

## Modelling Parasite Transmission and Control

It is clear that many fascinating problems still remain to be addressed in parasite transmission modelling, from better understanding of transmission processes and natural history of infection to investigating the impact of ecological and spatial scales, climate change, host immunity and social behaviour, parasite-host evolutionary dynamics and parasite community ecology on parasite transmission. This book captures some of the advances made in recent years and provides indications of ways forward for addressing these questions by shedding light on developments in conceptual frameworks and modelling tools as well as the emergence of new data forms for aiding model construction, testing and analysis. Another important advance has been the parallel development of robust computationally-intensive statistical methods to allow model testing and parameterization by aiding the fitting of models to complex data.

### Features

► Presents the progress made in terms of both the conceptual and practical advances made in addressing key gaps in parasite transmission modelling, the new understanding these have yielded regarding the transmission and control of these parasites, and the future challenges they portend for population dynamics modelling

### Fields of interest

Biomedicine general

### Target groups

Research

### Type of publication

Contributed volume

 Humana Press

 Springer Protocols

Due June 2010

2010. Approx. 450 p. (Handbook of Modern Biophysics) Hardcover

► **approx. € 111,65 | £102.00**  
► **approx. \* € (D) 119,47 | € (A) 122,82 | sFr 241,00**  
ISBN 978-1-60327-232-2



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 Biomedical and Life Sciences

Due April 2010

2010. Hardcover

► **approx. € 140,05 | £126.00**  
► **approx. \* € (D) 149,85 | € (A) 154,06 | sFr 217,50**  
ISBN 978-1-4419-5575-3



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 Biomedical and Life Sciences

Due April 2010

2010. XXIV, 212 p. 60 illus., 4 in color. (Advances in Experimental Medicine and Biology, Volume 673) Hardcover

► **€ 129,95 | £117.00**  
► **\* € (D) 139,05 | € (A) 142,95 | sFr 202,00**  
ISBN 978-1-4419-6063-4



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W. G. Newman, University of Manchester, UK (Ed)

## Pharmacogenetics: Making cancer treatment safer and more effective

Chemotherapy has made a dramatic difference to improved survival in patients with cancer. However, not all patients respond and some experience serious side effects.

"Pharmacogenetics: Making cancer treatment safer and more effective" is an up to date summary of the exciting new field of how genetic testing can tailor more effective prescription in oncology. It is targeted at oncologists and professionals involved in the treatment of patients with cancer. It provides a core background in genetics and pharmacological principles before providing chapters from acknowledged experts in the field on genetic tests in specific cancer types, including breast, bowel and lung cancer. Clinical cases are used to illustrate the practical application of this knowledge.

Chapters on ethics, health economics and the industry aspects of pharmacogenetics set out the challenges and opportunities afforded by this new science.

### Features

► First book for clinicians on pharmacogenetics of cancer ► Clinical cases aid understanding of how pharmacogenetics can be applied ► Includes section on future potential and applications of pharmacogenetics in cancer ► Sections on the genetics of palliative care and radiotherapy treatment

### Fields of interest

Cancer Research; Pharmacology/Toxicology; Human Genetics

### Target groups

Professional/practitioner

### Type of publication

Contributed volume

N. Pallua, C. V. Suscheck, University Hospital of the RWTH, Aachen, Germany (Eds.)

## Tissue Engineering

### From Lab to Clinic

Tissue engineering is a multidisciplinary field incorporating the principles of biology, chemistry, engineering, and medicine to create biological substitutes of native tissues for scientific research or clinical use. Specific applications of this technology include studies of tissue development and function, investigating drug response, and tissue repair and replacement. This area is rapidly becoming one of the most promising treatment options for patients suffering from tissue failure. This abundantly illustrated and well-structured guide serves as a reference for all clinicians and researchers dealing with tissue engineering issues in their daily practice.

### Features

► Abundantly illustrated overview of the latest findings in tissue engineering and their clinical application ► State of the art presented by leading experts in the field ► Visual approach including self-explanatory graphics, diagrams, and photos

### Contents

BASICS AND PRINCIPLES: Scaffolds: Micro and Nano Technology.- Biomimetic Materials.- Natural and Synthetic Scaffolds: Adhesion, ECM, Structure, Function, Modification.- Cells: Sources, Growth, Differentiation, Trans-Differentiation.- Embryonic Stem Cells: Sources and Characterization.- Adult Stem Cells: Sources and Characterization.- Isolation and Growth.- Differentiation and Plasticity.- Regulation Mechanisms: Key Signaling Molecules.- Cell and Organ preservation.- Engineering Technologies: Animal Models for Evaluation of Tissue Engineering Constructs.

### Fields of interest

Human Genetics; Plastic Surgery; Medical Biochemistry

### Target groups

Professional/practitioner

### Type of publication

Monograph

R. Rappuoli, G. Giudice, Novartis Vaccines, Siena, Italy (Eds.)

## Influenza Vaccines for the Future

The emergence of H5N1 avian influenza in 1997 and of the influenza A H1N1 of swine origin in 2009 calls for new, rapid and sustainable solutions against both seasonal and pandemic influenza viruses. During the last ten years, science and technology have made enormous progress, and we are now able to monitor in real time the genetics of viruses while they spread globally, to make more powerful vaccines using novel adjuvants, and to generate viruses in the laboratory by reverse genetics. This volume not only provides state-of-the-art information on the biology of influenza viruses and on influenza vaccines, but is designed to be a resource to face the present H1N1 pandemic and to plan for long term global and sustainable solutions.

### Fields of interest

Virology; Life Sciences, general

### Target groups

Research

### Type of publication

Monograph

 Biomedical and Life Sciences

*Due April 2010*

2010. VI, 245 p. Hardcover

► € 129,95 | £117,00

► \* € (D) 139,05 | € (A) 142,95 | sFr 202,00

ISBN 978-90-481-8617-4



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 Biomedical and Life Sciences

*Due September 2010*

2010. 500 p. 600 illus. in color. Hardcover

► approx. € 249,00 | £226,50

► approx. \* € (D) 266,43 | € (A) 273,90 |

sFr 413,50

ISBN 978-3-642-02823-6



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 Biomedical and Life Sciences

*Due March 2010*

2nd ed. 2010. Approx. 450 p. (Birkhäuser Advances in Infectious Diseases) Hardcover

► approx. € 109,00 | £98,00

► approx. \* € (D) 116,63 | € (A) 119,90 |

sFr 189,00

ISBN 978-3-0346-0278-5



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J. A. Roth, MD Anderson Cancer Center, Houston, TX, USA (Ed.)

## Gene-Based Therapies for Cancer

### Contents

Gene and RNAi Therapies in Cancer.- Gene Therapy of Brain tumors.- Gene Therapy of Prostate Cancer.- Si RNA Therapy for Cancer.- Tumor Suppressor Gene Therapy for Cancer.- Targeted Oncolytic Viruses for Cancer Therapy.- Gene Therapy for Mesothelioma.- Mesenchymal Stem Cells for Cancer Therapy.- Retargeting Adenovirus for Cancer Gene Therapy.- Lentiviruses for Cancer Gene Therapy.- IL-24 for Cancer Gene Therapy.- Herpes Simplex Virus for Cancer Therapy.- Telomerase as a target.- Gene Therapy for Leukemia.- Gene Therapy for Sarcomas.

### Fields of interest

Cancer Research; Pharmacology/Toxicology

### Target groups

Research

### Type of publication

Contributed volume

M. C. Williams, Northeastern University, Boston, MA, USA; L. J. Maher, Mayo Clinic College of Medicine, Rochester, MN, USA (Eds.)

## Biophysics of DNA-Protein Interactions

### From Single Molecules to Biological Systems

Despite the rapid expansion of the field of biophysics, there are very few books that comprehensively treat specific topics in this area. Recently, the field of single molecule biophysics has developed very quickly, and a few books specifically treating single molecule methods are beginning to appear. However, the promise of single molecule biophysics is to contribute to the understanding of specific fields of biology using new methods. This book would focus on the specific topic of the biophysics of DNA-protein interactions, and would include the use of new approaches, including both bulk methods as well as single molecule methods. This would make the book attractive to anyone working in the general area of DNA-protein interactions, which is of course a much wider market than just single molecule biophysicists or even biophysicists.

### Features

► Covers expert perspectives on a wide array of important DNA-protein interactions from physical perspective ► Outlines recent accomplishments in the rapidly expanding area of biophysics ► Provides information for anyone studying DNA interactions at all biological levels ► Relevant to people working in molecular biology, biochemistry, and biophysics

### Fields of interest

Biophysics and Biological Physics; Molecular Medicine; Cell Biology

### Target groups

Professional/practitioner

### Type of publication

Monograph

Q. Yan, PharmTao, Santa Clara, CA, USA (Ed.)

## Membrane Transporters in Drug Discovery and Development

### Methods and Protocols

Studies of membrane transporters have had a great impact on our understanding of human diseases and the design of effective drugs. In *Membrane Transporters in Drug Discovery and Development: Methods and Protocols*, expert researchers provide practical methodologies of the ongoing research on membrane transporters, considering applications of transporter technologies in drug discovery and development. Chapters include new and useful fields and methodologies, including pharmacogenomics, nutrigenomics, systems biology, bioinformatics, nuclear magnetic resonance (NMR), imaging, and quantitative real-time-PCR. Transporter studies in drug discovery and development for various diseases are discussed, including neuropsychiatric disorders, cardiovascular diseases, ophthalmic diseases, cancer, and diabetes. Composed in the highly successful *Methods in Molecular Biology™* series format, each chapter contains a brief introduction, step-by-step methods, a list of necessary materials.

### Features

► Cutting-edge technologies for transporter studies in drug discovery and development ► Transporter structure-function studies and drug treatments in various diseases ► Latest developments in pharmacogenomics, systems biology, and bioinformatics ► Step-by-step methods with tips on troubleshooting and avoiding known pitfalls

### Fields of interest

Pharmacology/Toxicology; Membrane Biology

### Target groups

Research

### Type of publication

Contributed volume

 Biomedical and Life Sciences

*Due July 2010*

2010. Approx. 300 p. 20 illus. (Current Cancer Research) Hardcover

► **approx. € 130,15 | £118.50**  
 ► **approx. \* € (D) 139,26 | € (A) 143,17 | sFr 216,00**  
 ISBN 978-1-4419-6101-3



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 Physics and Astronomy

*Due July 2010*

2010. Approx. 400 p. 100 illus., 50 in color. (Biological and Medical Physics, Biomedical Engineering) Hardcover

► **approx. € 99,35 | £90.00**  
 ► **approx. \* € (D) 106,30 | € (A) 109,29 | sFr 165,00**  
 ISBN 978-0-387-92807-4



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 Humana Press

 Springer Protocols

*Due April 2010*

2010. XII, 332 p. 116 illus., 58 in color. (Methods in Molecular Biology, Volume 637) Hardcover

► **€ 109,95 | £99.00**  
 ► **\* € (D) 117,65 | € (A) 120,95 | sFr 171,00**  
 ISBN 978-1-60761-699-3



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