HPV and Cervical Cancer
Achievements in Prevention and Future Prospects

This book is meant to provide a complete overview of the research of HPV and its connection to cervical cancer.

Features
- Provides overview of HPV research from discovery to the present day
- Examines the process of HPV infection to oncogenesis
- Explores the effects of HPV vaccination

Contents
Store-operated Ca2+ entry (SOCE) pathways

Emerging signaling concepts in human (patho)physiology

Contents
M. v. Itzstein, Griffith University, QLD, Australia (Ed.)

**Influenza Virus Sialidase – A Drug Discovery Target**

Influenza continues to be an ongoing problem despite the existence of vaccines and drugs. Disease outbreaks can occur relatively quickly as witnessed with the recent emergence of the influenza virus A/H1N11 pandemic. The development of new anti-influenza drugs is thus a major challenge. This volume describes all aspects of the virus structure and function relevant to infection. The focus is on drug discovery of inhibitors to the enzyme sialidase, which plays a key role in the infectious lifecycle of the virus. Following an overview of the influenza virus, the haemagglutinin, the interactions with the cell receptors and the enzymology of virus sialidase, recent results in drug design are presented.

**Features**
- Covers all relevant aspects of anti-influenza virus drug discovery
- Contributions by international leading scientists
- A valuable source of information for researchers, clinicians and the pharmaceutical industry

**Contents**
- Influenza Virus Virology: Investigating the interaction between influenza and sialic acid – making and breaking the link.
- Enzymology of Influenza Virus Sialidase.
- Influenza Virus Sialidase and Structure-Based Drug Design.
- The Development of Carbohydrate-based Influenza Virus Sialidase Inhibitors.
- The Development of Non-carbohydrate-based Influenza Virus Sialidase Inhibitors.
- Clinical Experience with Influenza Virus Sialidase Inhibitors.
- Resistance Development to Influenza Virus Sialidase Inhibitors.

**Fields of interest**
- Pharmacology/Toxicology
- Infectious Diseases
- Virology

**Target groups**
- Research

**Discount group**
- P

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Y. Karamanos, Université d’Artois, Arras, France (Ed.)

**Expression Profiling in Neuroscience**

**Features**
- Provides the most commonly used approaches to gene and protein expression profiling in the field of neuroscience
- Examines the techniques in thorough detail in order to create lab-ready instruction
- Features clear-cut advice and guidance from expert researchers in the field

**Contents**
- DNA Microarrays for Gene Expression Analysis in Brain Tissue and Cell Lines.
- Gene Expression Profiling Using the Terminal Continuation (TC) RNA Amplification Method for Small Input Samples in Neuroscience.
- Expression Profiling In Brain Disorders.
- Endothelial Cell Heterogeneity of Blood-Brain Barrier Gene Expression: Analysis by LCM/qRT-PCR.
- Sharing Expression Profiling Data with Gemma.
- Two-Dimensional Protein Analysis of Neural Stem Cells.
- iTRAQ Proteomics Profiling of Regulatory Proteins During Oligodendrocyte Differentiation.
- Protein Profiling of the Brain: Proteomics of Isolated Tissues and Cells.
- The Proteome of Brain Capillary Endothelial Cells: Towards a Molecular Characterization of an In Vitro Blood-Brain Barrier Model.
- MALDI Imaging Technology Application in Neurosciences: From History to Perspectives.
- Profiling of HIV Proteins in Cerebrospinal Fluid.
- Proteomic Profiling of Cerebrospinal Fluid.

**Fields of interest**
- Neurosciences
- Proteomics

**Target groups**
- Professional/practitioner

**Discount group**
- P

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E. Kotb, Zagazig University, Egypt

**Fibrinolytic Bacterial Enzymes with Thrombolytic Activity**

Stress, high blood pressure, smoking, pollution, fast foods, overweight, excessive travelling, surgery, less movement are common features in our modern life. These features are risky for blood clotting disorders. According to WHO, over 29% of the total mortalities worldwide are due to thrombosis. By the year, 2020 cardiovascular diseases (CVDs) may cause an estimated 25 million deaths per year, thus antithrombotic therapy is of great interest. The available thrombolytic agents such as urokinase are highly expensive, antigenic, quite unspecific, pyretogenic and hemorrhagenic. Therefore, the production of fibrinolysing enzymes, which rapidly dissolve thrombi within the vascular tree, without the detriments by microorganisms, as described in this book, is the desirable aim of today’s research.

**Features**
- Integrated practical and theoretical trends
- Describes fibrinolytic microbial enzymes for clinical applications
- Provides an outlook to future research

**Fields of interest**
- Medical Microbiology
- Hematology
- Cardiology

**Target groups**
- Research

**Discount group**
- P

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Synaptic Plasticity
Dynamics, Development and Disease

Contents

Fields of interest
Neurosciences; Neurology; Neurobiology

Target groups
Research

Discount group
P

P. R. Kreutz, Leibniz Institute for Neurobiology, Magdeburg, Germany; C. Sala, Consiglio Nazionale delle Ricerche, Milano, Italy (Eds)

Z. D. Luo, University of California Irvine Medical Center, Orange, CA, USA (Ed.)

Pain Research
Methods and Protocols

Contents

Fields of interest
Molecular Medicine; Pain Medicine

Target groups
Professional/practitioner

Discount group
P

A. Morozov, National Institutes of Health, Bethesda, MD, USA (Ed.)

Controlled Genetic Manipulations

The current demand for the development of techniques for controlled genetic manipulations is driven by the anatomical and physiological complexity of the brain and by the need for experimental models that can address this complexity through selective manipulation of defined components of the system: specific neuronal populations or selected synapses.

Features
- Provides both basic technical information and examples of creative implementation
- Supplies readers with the details needed to bring these techniques to their own labs
- Features key tips from the experts on how best to avoid common pitfalls

Contents

Fields of interest
Neurosciences; Human Genetics

Target groups
Professional/practitioner

Discount group
P

P. R. Kreutz, Leibniz Institute for Neurobiology, Magdeburg, Germany; C. Sala, Consiglio Nazionale delle Ricerche, Milano, Italy (Eds)

M. R. Kreutz, Leibniz Institute for Neurobiology, Magdeburg, Germany; C. Sala, Consiglio Nazionale delle Ricerche, Milano, Italy (Eds)
Biomedicine.

J. Peccoud, Virginia Bioinformatics Institute, Blacksburg, VA, USA (Ed.)

Gene Synthesis
Methods and Protocols

Contents

Fields of interest
Human Genetics; Genetic Engineering

Target groups
Professional/practitioner

Discount group
P

Neuroscience in the 21st Century
Basic and Clinical

Contents

Fields of interest
Neurosciences; Neurobiology; Neurology

Target groups
Research

Discount group
P

Due August 2012
Print
2012. 1200 p. (In 2 volumes, not available separately)
$679.00

eReference
2012.
$679.00

Systems Biology in Biotech & Pharma
A Changing Paradigm

Features
► Numerous step-by-step tutorials help the reader to learn quickly ► Outline of key technologies and tools needed for the development of Systems Biology ► Computational Systems Biology in Health and Disease  ► The use of Systems Biology for identifying drug targets

Contents

Fields of interest
Biomedicine general; Biotechnology; Applied Microbiology

Target groups
Research

Discount group
P

Available
2012. XVI, 133 p. 16 illus. in color. (SpringerBriefs in Pharmaceutical Science & Drug Development, Volume) Softcover
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ISBN 978-94-007-2848-3

Humana Press

Due February 2012

2012. XV, 320 p. 77 illus., 42 in color. (Methods in Molecular Biology, Volume 852) Hardcover
$139.00

Print + eReference
2012. 1200 p. (In 2 volumes, not available separately)
$849.00
T. Rösser, Spanish National Cardiovascular Research Center, Madrid, Spain

The Biology of Subcellular Nitric Oxide

This book fills in a gap in the NO literature.

**Features**
- Fills a gap in NO biology-related literature
- Topics discussed have general biological relevance
- Interdisciplinary summary on recent advance on NO cellular biology
- Chapter summaries and illustrations help rapid understanding of complex interactions
- Can be used as a reference in scientific papers
- Can be used as a lecture book

**Contents**
- Foreword
- Preface
- Part I General Concepts
- Introduction
- Part II Nitric Oxide Synthesis in Prokaryote Cells
- 2 Nitric Oxide is a Bioprocess
- In Prokaryotes
- Part III Nitric Oxide Synthesis in Plant Organelles
- 3 Nitric Oxide Synthesis in the Chloroplast
- 4 NO Synthesis in Leaf Peroxisomes
- And Plant-Type Mitochondria
- Part IV At the Edge of the Plant and Animal Kingdom
- 5 NO Synthesis in Subcellular Compartments of Fungi
- Part V Nitric Oxide Synthesis in Animal Cells
- 6 Synthesis in Subcellular Compartments of Fungi
- 7 The Golgi System Contributes to NO Homeostasis
- 8 Phagosomal And Lysosomal NO Synthesis
- 9 NO Synthesis and Cell Locomotion
- 10 Nitric Oxide Synthesis in the Mitochondria of Animal Cells
- 11 Peroxisomes: Where NOS Rests In Peace?
- 12 Subcellular Redistribution of NOS
- Abbreviations
- Glossary
- Image Information
- Subject Index

**Fields of interest**
- Biomedicine general
- Molecular Medicine
- Cell Biology

**Target groups**
- Research

**Discount group**
P

P. Salvi, University of Nancy, France

**Pulse Waves**

Hemodynamic approach to explain blood pressure values

Recently, several studies have shown the crucial role of viscoelastic properties of the aorta and large arteries in determining blood pressure values.

A good knowledge of cardiovascular pathophysiology and vascular hemodynamics is necessary to understand these phenomena. However, available texts on this topic are very complex and difficult for medical practitioners to understand. The aim of this book is to enable the reader to comprehend the relation between cardiovascular pathophysiology and vascular hemodynamics and to become familiar with the more recent guidelines. While very complex physical concepts are involved, care has been taken to ensure that the explanations are as straightforward as possible. Complex analyses are presented separately and can be skipped by the reader without impairment of understanding. It is envisaged that the knowledge imparted will prove invaluable in improving the approach to hypertensive patients.

**Features**
- Straightforward presentation of very complex physical concepts
- Many figures and user-friendly language, ensuring that the text is readily intelligible
- Separate presentation of complex analyses in boxes, allowing them to be skipped without impairment of understanding

**Contents**
- Introduction
- Mean arterial pressure
- Pulse Pressure
- Central blood pressure
- Appendix
- References

**Fields of interest**
- Human Physiology
- Cardiology

**Target groups**
- Professional/practitioner

**Discount group**
P

F. Rahimi, Australian National University, Canberra, ACT, Australia; G. Bitan, University of California at Los Angeles, CA, USA (Eds)

**Non-fibrillar Amyloidogenic Protein Assemblies - Common Cytotoxins Underlying Degenerative Diseases**

**Contents**
1. Overview of Fibrillar and Oligomeric Assemblies of Amyloidogenic Proteins
2. Pathologic Lesions in Alzheimer disease and Other Neurodegenerative Diseases—Cellular and Molecular Components
3. Preparation and Structural Characterization of Pre-fibrillar Assemblies of Amyloidogenic Proteins
4. Biological Targeting and Activity of Pre-fibrillar Aβ Assemblies
5. The Role of Aβ and Tau Oligomers in the Pathogenesis of Alzheimer’s disease
6. Oligomers of α-Synuclein in the Pathogenesis of Parkinson’s Disease
7. Cytotoxic Mechanisms of Islet Amyloid Polypeptide in the Pathogenesis of Type-2 Diabetes Mellitus (T2DM)
8. Protein Misfolding and Toxicity in Amyotrophic Lateral Sclerosis
9. Structural Studies of Prion Proteins and Prions
10. Role of Prion Protein Oligomers in the Pathogenesis of Transmissible Spongiform Encephalopathies
12. Prion Protein Oligomers in the Pathogenesis of Prion Disease
13. Proteins Misfolding and Toxicity in Dialysis-Related Amyloidosis
14. Strategies for Inhibiting Protein Aggregation: Therapeutic Approaches to Protein-Aggregation Diseases

**Fields of interest**
- Biomedicine general
- Protein Science
- Protein Fields of interest
- Aggregation Diseases

**Target groups**
- Research

**Discount group**
P

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2012. X, 100 p. 70 illus. Softcover
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ISBN 978-88-470-2438-0
F. H. Sarkar, Wayne State University, Detroit, MI, USA (Ed.)

Nutraceuticals and Cancer

Features
- Nutraceuticals and Cancer Therapy
- Targeted and Adjutant Therapy
- Approach reducing systemic toxicity

Contents

Fields of interest
Biomedicine general; Cancer Research; Nutrition

Target groups
Research

Discount group
P

B. Shapiro, The Pennsylvania State University, University Park, PA, USA; M. Hofreiter, University of York, UK (Eds)

 Ancient DNA

Methods and Protocols

Contents

Fields of interest
Human Genetics

Target groups
Professional/practitioner

Discount group
P

S. D. Skaper, University of Padova, Italy (Ed.)

Neurotrophic Factors

Methods and Protocols

Contents
Stem Cells and Human Diseases

Contents

Fields of interest
Biomedicine general; Literacy; Medicine/Public Health, general

Target groups
Research

Discount group
P

Treatment and Prevention of Malaria

Antimalarial Drug Chemistry, Action and Use

Features
- Gives a comprehensive account of the recent advances in anti-malaria drugs
- Chapters contributed by expert authors
- Describes new ideas and directions for study

Contents

Fields of interest
Pharmacology/Toxicology; Infectious Diseases; Parasitology

Target groups
Research

Discount group
P

Structure-Based Drug Discovery

The last decade has seen the confluence of several enabling technologies that have allowed protein crystallographic methods to live up to their true potential.

Features
- Includes cutting-edge methods and protocols
- Provides step-by-step detail essential for reproducible results
- Contains key notes and implementation advice from the experts

Contents

Fields of interest
Pharmacology/Toxicology; Medicinal Chemistry

Target groups
Professional/practitioner

Discount group
P
Biomedicine.

A. Thiel, Berlin-Brandenburg Center for Regenerative Therapies (BCRT), Berlin, Germany (Ed.)

Immunosenescence

As individuals age, their ability to respond to and clear pathogens and to control unwanted immune reactions declines, leading to a greater incidence of certain infectious diseases, autoimmunity and general immune dysfunctions. Most remarkably, the efficacy of vaccines is frequently decreased in elderly persons. Therefore, age-associated dysfunctions of the humoral and cellular immune responses have a strong clinical impact. Improving our understanding of the aged immune system is crucial in developing effective prevention and treatment programs that will facilitate healthy aging and improve the quality of life of the elderly population.

Features

- Describes molecular aspects of the aging immune system
- Discusses new therapeutic approaches
- Written by internationally reputed scientists

Contents

- Regulation of Adaptive Immunity in the Elderly.
- Does Innate Immunity Get Old?.
- Characteristics of B Cells and B Cell Responses in Aged Individuals.
- Mechanisms of Immune Protection to Pneumococcal Infection in the Young and the Elderly.
- CMV Subversion of the Immune System in Later Life.
- Aging and Autoimmunity.
- Vaccination in the Elderly.
- Immunosenescence and the 3r's: Restoration, Replacement and Reprogramming.
- Novel Strategies of Improved Vaccines for Elderly: The Example of Influenza.

Fields of interest

Biomedicine general; Immunology; Molecular Medicine

Target groups

Research

Discount group

Professional/practitioner

Drug Discovery and Evaluation: Safety and Pharmacokinetic Assays

H. G. Vogel, J. Maas, Aventis Pharma, Frankfurt, Germany; F. J. Hock, Dieburg, Germany; D. Mayer, Idstein, Germany (Eds)

Drug Discovery and Evaluation: Safety and Pharmacokinetic Assays

Features

- A landmark in the continuously changing world of drugs
- Essential reading for scientists and managers in the pharmaceutical industry involved in drug finding, drug development and decision making in the development process
- Of use for government institutions and committees working on official guidelines for drug evaluation worldwide

Contents

From the contents: General Introduction: Safety Pharmacology.
- Safety Pharmacokinetics.
- Safety Toxicology.

Fields of interest

Pharmacology/Toxicology

Discount group

Professional/practitioner

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