Book Reviews

Editorial Policy. Recently published books and journals (one copy) are invited by the Editorial Office for announcement and review in ANTICANCER RESEARCH (no fee). Each announcement should include the full title of the publication, authors or editors, the number of pages, price, year of publication, ISBN and publisher. Publishers will be notified upon receipt of books and tear sheets of reviews will be sent after publication. Books will be returned to the sender only if the announcement is rejected. Reviews will be objective and clear regarding the content, quality and usefulness of the publication.

Handbook of Immunohistochemistry and in situ Hybridization in Human Carcinomas. Molecular Genetics, Gastrointestinal Carcinoma and Ovarian Carcinoma. Volume 4.

Edited by M.A. Hayat. 2006, pp. 564, US\$199.95, ISBN: 0-12-369402-7. Elsevier Academic Press, Burlington, MA, USA.

Classical histology has been augmented by immunohistochemistry (the use of specific antibodies to stain particular molecular species in situ). Immunohistochemistry has allowed the identification of many more cell types than could be visualized by classical histology, particularly in the immune system and among the scattered hormone-secreting cells of the endocrine system, identification of biomarkers will facilitate predisposition and early diagnosis, prognosis and therapeutic options.

This book discusses all aspects of immunohistochemistry and in situ hybridization technologies and the important role they play in reaching a cancer diagnosis. It provides step-by-step instructions on the methods of additional molecular technologies such as DNA microarrays, and microdissection, along with the benefits and limitations of each method. The topics of region-specific gene expression, its role in cancer development and the techniques that assist in the understanding of the molecular basis of disease are relevant and necessary in science today.

Principles and applications of modern techniques used in the field of molecular genetics are fully explained in this volume and in volume 1, 2 and 3. The broad range of their utility is discussed. Detection of nucleic acids and proteins is presented. The authors introduce protocols with basic theory so that readers can adjust them to suit their specific needs. Technical tips are provided. This book will be of particular interest to pathologists and molecular pathologists conducting both academic and/or clinical research.

Principles of Molecular Medicine. Second Edition.

Edited by M.S. Runge, C. Patterson. 2006, pp.1268, US\$195.00, ISBN: 1-588-29-202-9. Humana Press, Totowa, NJ, USA.

The Editors and a panel of 251 authoritative contributors – many of them world-renowned clinicians and researchers – have now updated and expanded the much – acclaimed first edition of

Principles of Molecular Medicine to provide an integrated survey of the basic principles of internal medicine in the light of recent dramatic discoveries in molecular medicine and new technologies for the diagnosis and treatment of human disease. This second edition contains new sections on genetics, oncology, metabolic diseases, and infectious diseases, in addition to fully revised sections on neurology, cardiology, hematology, nephrology, endocrinology, dermatology, immunology, gastroenterology, pulmonary disease, musculoskeletal medicine, and psychiatry. Here, the reader will discover the latest findings about direct links between genetic mutations and diseases, genomic approaches to a variety of diseases, and stem cell populations that regenerate muscle, heart, and neural cell populations. Other advances elucidated include the roles of bone morphogenetic proteins in pulmonary hypertension, mutations involved in an array of cardiomyopathies, and new understanding of the biology of previously untreatable neurodegenerative diseases, such as Huntington's disease. For this edition, the authors have also focused on producing a tightly written text with more useful figures and tables and reduced references, so that the text is more immediately useful but not overwhelming as a reference book.

Comprehensive and state of the art, Principles of Molecular Medicine, Second Edition, offers practicing physicians, researchers, and residents and extraordinary summary of the rapidly emerging molecular mechanisms underlying disease and valuable insights into the nature and direction of future developments.

Textbook of Uncommon Cancer. Third Edition.

Edited by D. Raghavan, M.L. Brecher, D.H. Johnson, M.J. Meropol, P.L. Moots, P.G. Rose, I.A. Mayer. 2006, pp. 857, Euro 389.00, ISBN: 0-470-01202-1. Wiley, Chichester, West Sussex, England.

Rare tumors present a challenge to clinicians; the paucity of information available on the management and outcomes of these malignancies means that clinical decision-making is often based on data from very small populations of patients. The third edition of this authoritative text provides current information on the biology and management of a broad range of uncommon tumors. Contributors have provided, whenever possible, their own approach to management even in the absence of defined guidelines, in order to guide clinicians in treating specific rare tumors. Edited by a stellar team of oncologists and with contributions from leading experts worldwide, the Textbook of Uncommon Cancer, Third Edition is an invaluable source of information on diagnosis, management and outcomes in these challenging patients.

Nutritional Oncology. Second Edition.

Edited by D. Heber, G.L. Blackburn, V.L.W. Go, J. Milner. 2006, pp. 822, US\$179.95, ISBN: 0-12-088393-7. Elsevier Academic Press, Burlington, MA, USA.

Nutritional oncology is an increasingly active interdisciplinary field where cancer is investigated as both a systemic and local disease originating with the changes in the genome and progressing through a multi-step process which may be influenced at many points in its natural history by nutritional factors that could impact the prevention of cancer, the quality of life of cancer patients, and the risk of cancer recurrence in the rapidly increasing population of cancer survivors. Since the first edition of this book was published in 1999, the idea that there is a single gene pathway or single drug will provide a cure for cancer has given way to the general view that dietary/environmental factors impact the progression of genetic and cellular changes in common forms of cancer. This broad concept can now be investigated within a basic and clinical research context for specific types of cancer. This book attempts to cover the current available knowledge in this new field of nutritional oncology written by invited experts. This book attempts to provide not only the theoretical and research basis for nutritional oncology, but will offer the medical oncologist and other members of multidisciplinary groups treating cancer patients practical information on nutrition assessment and nutritional regimens, including micronutrient and phytochemical supplementation. The editors hope that this volume will stimulate increased research, education and patient application of the principles of nutritional oncology. New to this edition: Covers hot new topics of nutrigenomics and nutrigenetics in cancer cell growth; Includes new chapters on metabolic networks in cancer cell growth, nutrigenetics and nutrigenomics; Presents substantially revised chapters on breast cancer and nutrition, prostate cancer and nutrition, and colon cancer and nutrition; Includes new illustrations throughout the text, especially in the breast cancer chapter.

Audience: Researchers and graduate students in both nutrition and oncology investigating the intersection of these areas and the impact of nutrition both in prevention and therapeutics.

Endoscopic Oncology. Gastrointestinal Endoscopy and Cancer Management.

Edited by D.O. Faigel, M.L. Kochman . 2006, pp. 380, US\$195.00, ISBN: 1-588-29-532-X. Humana Press, Totowa, NJ, USA.

This volume examines the interface between endoscopy and oncology, and its utilization in the prevention, diagnosis, and management of cancer. Organized anatomically, chapters covering relevant cancers and premalignant conditions of the esophagus, stomach, colorectum, and pancreaticobiliary are explored in depth. This volume presents the reader with chapters summarizing state-of-the-art endoscopic medical and surgical cancer treatment, including endoscopic mucosal resection, photodynamic therapy, and palliative stent placement. Extensive coverage is given to colonoscopy, endoscopic ultrasound, esophagogastroduodendoscopy, endoscopic retrograde cholangiopancreatography, and all of the major endoscopic procedures.

Endoscopic Oncology: Gastrointestinal Endoscopy and Cancer Management is written with the practicing endoscopist

in mind. Given the multidisciplinary approach of modern cancer care, this book is a must have for all health care professionals who take care of cancer patients, including medical oncologists, radiation oncologists, and surgeons.

Ocular Angiogenesis. Diseases, Mechanisms and Therapeutics.

Edited by J. Tombran-Tink C.J. Barnstable. 2006, pp. 412, US\$165.00, ISBN: 1-58829-514-1. Humana Press, Totowa, NJ, USA.

The recent intense study of pathogenic ocular angiogenesis – an abnormal growth of blood vessels in the eye responsible for the major blinding diseases throughout the world - has yielded an overwhelming flood of scientific findings, novel insights, and possible future therapeutic approaches. In this volume leading academic and pharmaceutical researchers and clinicians from many disciplines synthesize and summarize these developments to present a comprehensive review of what is known about angiogenesis, its role in blinding diseases, and the mechanisms leading to progressive vessel dysfunction. The authors also identify and assess the most promising approaches with potential for commercial exploitation and discuss the challenges encountered in developing therapeutics for ocular neovascular diseases. Highlights include illuminating chapters on gene therapy and novel drug delivery systems and excellent summaries of the newest therapeutic approaches. A companion CD contains color versions of important figures used in the book.

Comprehensive and multidisciplinary, Ocular Angiogenesis: Diseases, Mechanisms and Therapeutics offers a novel view of the clinical features of pathological angiogenesis in the eye, the molecular and environmental switches that govern vessel growth, and the tremendous opportunities for and progress made in the development of new therapeutics.

Polyamine Cell Signaling. Physiology, Pharmacology and Cancer Research.

Edited by J.Y. Wang, R.A. Casero, Jr. 2006, pp. 490, US\$159.00, ISBN: 1-588-29-625-3. Humana Press, Totowa, NJ, USA.

This volume presents current state-of-the-art findings relevant to cellular and molecular functions of polyamines, as well as providing the underlying conceptual basis and knowledge regarding potential therapeutic-targeting polyamines and polyamine metabolism leading to the development of new therapeutic approaches for cancers and other diseases. Divided into four main parts that include polyamines in signal transduction of cell proliferation; polyamines in cellular signaling of apoptosis, carcinogenesis, and cancer therapy; polyamines in cell motility and cell-cell interactions; and polyamine homeostasis and transport, these topics are addressed by internationally recognized experts in their respective fields.

This timely guide provides the whole picture of polyaminespast, present, and potential future, and offers a wealth of information regarding basic knowledge and current progress on cellular functions of polyamines and their potential clinical applications in cancer therapy. For investigators in the fields of polyamines, physiology, pharmacology, and cancer research, Polyamine Cell Signaling: Physiology, Pharmacology and Cancer Research serves as a foundation based on research and addresses the potential for subsequent applications in clinical practice

Infection and Inflammation. Impacts on Oncogenesis.

Edited by T. Dittmar, K.S. Zaenker, A. Schmidt. 2006, pp. 246, Euro 165.00, ISBN: 3-8055-8064-9. S. Karger AG, Basel, Switzerland.

The last two decades have shown that the local microenvironment plays a pivotal role in cancer progression. Cancer is not the result of mutation events in single cells, but of a complex interplay of tumor cells, inflammatory cells, stem cells, growth factors, cytokines, chemokines and DNA-damaging agents.

This book provides an up-to-date overview of how infections and chronic inflammatory conditions can give rise to the onset of a malignant phenotype, a theory that was originally postulated by Rudolf Virchow as early as 1863. Internationally recognized experts discuss novel aspects such as the role of stem cells and the occurrence of aneuploidy in carcinogenesis. Several examples of pathogens and their correlation with specific cancer types are described, e.g. Helicobacter pylori and gastric neoplasia, and schistosomiasis and bladder cancer. The mechanisms of carcinogenesis are examined in detail as are the types of cells that can transform to a malignant phenotype, with special emphasis on stem cells which have recently been shown to give rise to cancer. Further chapters discuss the role of chemokines in directing metastasis and describe options for visualizing metastasis formation in 3-dimensional model systems and in the living body.

Our increasing knowledge of the inflammatory microenvironment's role in the carcinogenic process will be the basis for investigating new anti-inflammatory strategies to counter tumor formation and growth. Therefore, this book is essential reading for scientists and clinicians working in cancer research and prevention.

Understanding Carcinogenesis. An Introduction to the Molecular Basis of Cancer.

Bu H. Kiaris.

2006, pp. 177, Euro 65.00, ISBN: 3-527-31486-5. Wiley-VCH, Verlag GmbH & Co, Weinheim, Germany.

Cancer, the second leading cause of death in the industrialized world is a heterogeneous group of many different diseases. it is characterized by disorded and deregulated cellular and stromal proliferation accompanied by reduced cell death. At the molecular level, cancer is a genetic disease that develops due to the accumulation of mutations over time in somatic cells.

This book is a concise, up-to-date introduction to the molecular basis of carcinogenesis. The author manages to present both the basic and the clinical while retaining a simple and concise style.

Following an introduction to fundamental concepts related to the clonality of the tumors and the hypermutability of the cancer cells, he continues with a description of genes involved in the process of carcinogenesis and concludes with more complex phenomena of tumor biology, such as the role of the tumor stroma and the metastatic process. A whole section on specific topics includes pharmacogenomics and viral carcinogenesis. In addition, he describes human and animal models of the disease, emphasizing their advantages and their limitations, rounding off with unifying concepts, as well as ongoing and future perspectives. The book makes good use of simple graphs to underline the notions described in the text, a feature that particularly aids comprehension.

Assessing Bioavailability of Drug Delivery Systems. Mathematical Modeling.

By J.-M. Vergnaud, I.D. Rosca 2005, pp. 223, £74.99, ISSN: 0-8493-3044-0. CRC - Taylor and Francis, Boca Raton, FL, USA.

Exploring how to apply in vitro/in vivo correlations for controlled release dosage forms, this volume clearly elucidates this complex phenomena and provides a guide for the respective mathematical modeling. Drawing on the author's considerable experience in investigating the mathematical fundamentals related to pharmaco- and toxicokinetics, the book introduces mathematical modeling methods for calculating the profiles of drug levels obtained in the plasma and tissues with drug delivery systems as intravenous, transdermal, and oral-controlled release dosage forms. The book includes examples and case studies that illustrate the techniques employed.

Using master curves, the book highlights the inter-variability of the patients often expressed by different responses towards a drug. Thus, after evaluating a patient's pharmacokinetic parameters, the dose can be adapted to the patient, with the expectation of decreasing the side effects for each patient. Using dimensionless numbers in repeated doses, either for the time or for the plasma drug concentration, makes the master curves useful for every drug, providing that its pharmacokinetics was linear. Discussing time and cost-effective methods as alternatives to conventional in vivo methods, the book helps you analyze and integrate in vitro/in vivo correlations and apply them to patient care and drug consultation situations

In Silico Technologies in Drug Target Identification and Validation.

Edited by D. Le_n, S. Markel. 2006, pp. 490, £97.00, ISBN: 1-57444-478-6. CRC - Taylor and Francis, Press, Boca Raton, FL, USA.

The pharmaceutical industry relies on numerous well-designed experiments involving high-throughput techniques and in silico

approaches to analyze potential drug targets. These in silico methods are often predictive, yielding faster and less expensive analyses than traditional in vivo or in vitro procedures.

In Silico Technologies in Drug Target Identification and Validation addresses the challenge of testing a growing number of new potential targets and reviews currently available in silico approaches for identifying and validating these targets. The book emphasizes computational tools, public and commercial databases, mathematical methods, and software for interpreting complex experimental data. The book describes how these tools are used to visualize a target structure, identify binding sites, and predict behavior. World-renowned researchers cover many topics not typically found in most informatics books, including functional annotation, siRNA design, pathways, text mining, ontologies, systems biology, database management, data pipelining, and pharmacogenomics.

Animal Models of Cognitive Impairment.

Edited by E.D. Levin, J.J. Buccafusco. 2006, pp. 376, £79.99, ISBN: 0-8493-2834-9. CRC - Taylor and Francis, Boca Raton, FL, USA.

Featuring contributions from distinguished researchers in the field of cognitive therapy research, this volume examines some of the most popular and successful animal archetypes used in the context of drug discovery. It provides integrated coverage of the latest research concerning neuronal systems relevant to cognitive function and dysfunction, assimilating reviews of this research within the context of each chapter. This approach is unique in that it brings together molecular and neurochemical methodologies, behavioral applications in translational models, and clinical applications.

The book comprehensively discusses a wide variety of animal models of cognitive impairment, including genetic, lesion, pharmacological, and aging related impairments. It also explores the significance of this research in regards to the treatment of various addictions and disorders such as stroke, autism, Alzheimer's, schizophrenia, and ADHD.

Edited by two renowned authorities in the field, Animal Models of Cognitive Impairment is a timely book that provides integrated coverage of cutting-edge research that concerns neuronal systems relevant to cognitive function and dysfunction.

Cobalt in Hard Metals and Cobalt Sulfate, Gallium Arsenide, Indium Phosphide and Vanadium Pentoxide.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Vol. 86.

2006, pp. 330, US\$49.50, ISBN: 92-832-1286-X. WHO Press, Geneva, Switzerland.

The objective of the IARC Monographs is to prepare with the help of international working groups of experts, critical reviews and evaluation of evidence on the carcinogenicity of a wide range of human exposures.

This volume presents comprehensive reviews on the carcinogenic risk assessment and quantitative risk estimation of cobalt sulfate, gallium arsenide, indium phosphide and vanadium pentoxide.

Producing Biomolecular Substances with Fermenters, Bioreactors, and Biomolecular Synthesizers.

By W.L. Hochfeld.

2006, pp. 408, £189.95, ISBN: 0-8493-2270-7. CRC - Taylor and Francis, Boca Raton, FL, USA.

This volume examines the bioproduction systems that support the controlled, automated, and quantity growth of proteins. The book discusses the substance, character, makeup, and quality of the basic materials used in the production and downstream processing of boimolecular materials: raw materials, reagents, intermediates, and consumables. The author gets right to the point, explaining just what must be done and how to do it effectively, then providing the formula necessary for reaching the required value, allowing you to simply plug-in your data and make protein. However, if you actually do need the origin and derivation of any given formula, you can go right to the extensive reference section. This format presents unparalled, detailed, and cutting-edge information on bioprocessing systems.

A working reference and formulary for producing recombinant, bioactive, or other exotic proteins, peptides, and nucleic acids to specification, the text provides coverage of the related technologies, coupled with the extensive biotechnology glossary, manufacturer's directories, extensive references, important formulae, charts, illustrations, comprehensive index, emphasis on practical techniques, time-proven methods, and essential applications. These features combine with its ingeneous, easy-to-use layout to make it the resource you will consult on a regular basis.

Cancer Biotherapy. An Introduction Guide.

Edited by A. Young, L. Rowett, D. Kerr. 2006, pp. 323, £35.00, ISBN: 0-19-856631-X. Oxford University Press, Oxford, England.

Recent advances in biology and immunology have opened up new horizons in both our understanding of cancer as a disease, and the potential for cancer therapy. These major developments mean that chemotherapy, radiotherapy and surgery are no longer the only options. Biotherapy, or biological therapy, is now regarded as the fourth treatment modality for patients with cancer. It utilises the great increase in our knowledge of molecular biology, cell biology and immunology to achieve tumour control. This introductory guide is essential reading as the transition from the laboratory phase to clinical practice is made.

Opening chapters on the cell biology of cancer and the immune system set the scene, before the clinical development of biological therapies is addressed. The reader is then guided through the various methods and types of biological therapy, including kinase inhibitors, monoclonal antibodies, cytokines, gene therapy, and the RAS pathway. The potential of genetic information to benefit patients concludes this guide.

Edited by a team with perspectives in pharmacology, oncology and nursing, and with contributions from experts in the various areas of biotherapy, this book serves as an introduction to the subject. It includes the principles behind biological therapy, with discussion of the impact on the future of the fight against cancer. It has a strong clinical focus, describing the relevant biology and immunology while highlighting clinical relevance and treatment issues.

Phase I Cancer Clinical Trials. A Practical Guide.

By E.A. Eisenhauer, C. Twelves, M. Buyse. 2006, pp. 343, £35.00, ISBN: 0-19-856719-7. Oxford University Press, Oxford, England.

It is and exciting time in cancer research, with the number and type of potential new anti-cancer drugs increasing dramatically. Phase I Cancer Clinical Trials. A Practical Guide is the first book to concentrate on this particular phase of drug development in cancer.

Phase I trials follow years of laboratory development, and their primary goals are to identify the recommended dose, schedule and pharmacologic behaviour of new agents or combinations of agents, and to describe the adverse effects of treatment. In cancer therapeutics, such studies have particular challenges. In general, because of the nature of the effects of treatment, most studies are conducted in patients with advanced malignancy, rather than in healthy volunteers. Furthermore, the end-points of these trials are usually measures of adverse effects, but increasingly investigators are interested in assessment of the effects of new drugs on their molecular target. These factors render the design, conduct, analysis and ethical aspects of Phase I cancer clinical trials unique.

Topics covered include preclinical requirements needed for first-in-man investigation of new agents, principles and statistical design, ethical considerations of Phase I studies, pharmacokinetics, pharmacodynamics, and studies in special populations. Practical information on protocol development, study activation and conduct, as well as how to write reports of the results, are incorporated. Numerous appendices offer document templates to use in Phase I study development, and examples from actual Phase I trials are interspersed throughout. This is a truly 'hands-on' guide for anyone interested in developing and running such trials

Oncology trainees and specialists involved in cancer drug development will find this book the definitive resource on Phase I cancer studies. Medical oncologists, haematologists, clinical pharmacologists, and pharmaceutical companies will also find the book of interest.

Medicinal Plants of Asia and the Pacific.

By C. Wiart. 2006, pp. 306, £109.00, ISBN: 0-8493-7245-3. CRC – Taylor and Francis, Boca Raton, FL, USA.

Drawing on the author's extensive personal experience, Medicinal Plants of Asia and the Pacific provides comprehensive coverage

of the medicinal plants of the region. Describing more than 300 compounds, the book discusses every important class of natural products while highlighting cutting-edge research and recent developments. With its broad scope and extensive compound listings, the presentation and approach of the book is unique.

Organized by mode of action, each chapter includes figures of plants accompanied by coverage of concepts and mechanisms of action, and ends with a selection of recommended reading. The carefully, designed layout present the most relevant information at a glance, including compound structure, molecular properties, pharmacology, and clinical uses. The book connects all aspects of botany, ethnobotany, pharmacology, toxicology, pharmacy, and medicine and features a comprehensive explanation of each topic. By doing so, the book provides an intellectual tool for understanding and therefore will open new doors towards the discovery of new drugs from medicinal plants. The author's approach fosters innovative ways of looking at the discovery of drugs from medicinal plants.

Alcohol, Tobacco and Cancer.

Edited by C.H. Cho, V. Purohit. 2006, pp. 312, Euro 163.00, ISBN: 3-8055-8107-6. S. Karger AG, Basel, Switzerland.

Excessive alcohol consumption and smoking are among the major risk factors for cancer. Simultaneous indulgence further increases the risk for especially cancer of the upper aerodigestive tract due to the interaction of several metabolic and genetic factors.

The first part of this book addresses in detail the correlations between alcohol and carcinogenicity, focusing on specific organs such as the upper aerodigestive tract, liver, colon, pancreas and breast. This includes the impairment of methionine-folate metabolism and DNA methylation by alcohol, as well as the use of s-adenosylmethionine to prevent cancer. Furthermore, the synergistic effects of reactive oxygen species and iron in producing liver cancer are addressed.

The second part is dedicated to the role of tobacco in lung and digestive tract cancers and to their prevention, highlighting the role of phytochemicals. More specifically, the mutagenic, mitogenic, precarcinogenic, anti-apoptotic, and immunosuppressive properties of nicotine which are involved in the development of cancer, and the possible use of nicotine vaccine in the prevention of mortality associated with tobacco, are discussed.

Highlighting general mechanisms leading to cancer and providing the latest information on the underlying mechanisms whereby alcohol consumption and tobacco use initiate and/or promote carcinogenesis, this book is a valuable source of information for all those interested in the topic.

Announcements

Annual Meeting of the German Society for Cytometry. 18-21 October 2006, Leipzig, Germany.

Information: Prof. Dr. A. T_rnok, Universität Leipzig,

Herzzsentrum, Klinik für Kinderkardiologie, Strümpellstrasse 39, 04289, Leipzig, Germany. www.dgfz.org.

28th Winter Meeting of the Pharmacology and Molecular Mechanisms Group of EORTC.
31 January-3 February, 2007, Berling, Germany.
Information: www.mdc-berlin.de/pamm2007.

12th Congress of the International Association of Biomedical Gerontology: Molecular Mechanisms and Models of Ageing, 20-24 May 2007, Spetses Island, Greece.

20-24 May 2007, Speeces Island, Orecce.

Information: www.eie.gr/nhrf/institute/ibrb/spetses-2007/home.html.

35th Congress of the International Society for Oncodevelopmental Biology and Medicine. 15-19 September 2007, Prague, Czech Republic.

Information: Prof. Tom__ Zima, President of ISOBM Congress 2007, Institute of Clinical and Laboratory Diagnostics, First Faculty of Medicine, Charles University, u. Nemocnice 2, 12808 Prague 2, Czech Republic, Tel: 00420 2 2496 2841, Fax: 00420 2 2496 2848, e-mail: zimatom@cesnet.cz.

Xth International Symposium on Platinum Compounds in Cancer Chemotherapy. 13-16 October 2007, Verona, Italy.

Information: acdunham@vcu.edu.