

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.

Gap Junction Protocols.

Edited by M. Vinken, S.R. Johnstone.
2016, pp 235, Eur 101.64, ISBN: 978-1-4939-3662-5.
Springer Science+Business Media, New York, NY, USA.

Presenting state-of-the-art protocols to study gap junctions, this detailed book first focuses on the use of methods and tools to investigate the different aspects of connexin expression and gap junction regulation. The second part of the volume describes several methods to probe gap junction functionality as such. Written in the highly successful *Methods in Molecular Biology* series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step and readily reproducible laboratory protocols, and key tips on troubleshooting and avoiding known pitfalls.

Authoritative and practical, *Gap Junction Protocols* is intended for basic and applied researchers in the area of biomedical and life sciences, both in academic and industrial settings.

Principles of Cancer Genetics. Second Edition.

By F. Bunz.
2016, pp 343, Eur 80.24, ISBN: 978-94-017-7482-6.
Springer Science+Business Media, Dordrecht, The Netherlands.

This is the second edition of a widely used textbook that consolidates the basic concepts of the cancer gene theory and provides a framework for understanding the genetic basis of cancer. Particular attention is devoted to the origins of the mutations that cause cancer, and the application of evolutionary theory to explain how the cell clones that harbor cancer genes tend to expand. Focused on the altered genes and pathways that cause the growth of the most common tumors, this book is aimed at advanced undergraduates who have completed introductory coursework in genetics, biology and biochemistry, medical students and medical house staff. For students with a general interest in cancer, this book provides a highly accessible and readable overview. For more advanced students contemplating future study in the field of oncology and cancer research, this concise book will be useful as a primer.

Atypical Elements in Drug Design.

Edited by J. Schwarz.
2016, pp 158, Eur 203.29, ISBN: 978-3-319-27740-0.
Springer International Publishing, Cham, Switzerland.

Medicinal chemistry is both science and art. The science of medicinal chemistry offers mankind one of its best hopes for improving the quality of life. The art of medicinal chemistry continues to challenge its practitioners with the need for both intuition and experience to discover new drugs. Hence sharing the experience of drug research is uniquely beneficial to the field of medicinal chemistry. Drug research requires interdisciplinary teamwork at the interface between chemistry, biology and medicine. Therefore, the topic-related series *Topics in Medicinal Chemistry* covers all relevant aspects of drug research, e.g. pathobiochemistry of diseases, identification and validation of (emerging) drug targets, structural biology, drugability of targets, drug design approaches, chemogenomics, synthetic chemistry including combinatorial methods, bioorganic chemistry, natural compounds, high-throughput screening, pharmacological in vitro and in vivo investigations, drug-receptor interactions on the molecular level, structure-activity relationships, drug absorption, distribution, metabolism, elimination, toxicology and pharmacogenomics. In general, special volumes are edited by well known guest editors.

Biomarkers in Neoplastic Neuropathology.

By F. Rodriguez, C.-Y. Ho.
2016, pp 98, Eur 64.19, ISBN: 978-3-319-20930-2.
Springer International Publishing, Cham, Switzerland.

This book is a rich source of information on biomarkers applicable to the pathology of neoplastic disorders of the brain. Thorough descriptions are provided of the techniques currently available for clinical and experimental evaluation of biomarkers in brain neoplasms, including in situ hybridization, array-based methods, methylation profiling, next-generation sequencing, and practical gene panels. Incorporation of multiple biomarkers in the development of molecular subgroups with biologic and therapeutic relevance is also discussed. A section on biobanking covers the equally important topic of optimal preservation of tissue and includes consideration of ethical considerations raised by the use of tissue obtained in clinical settings. The closing section discusses the major categories of neoplastic disorders involving the nervous system, with emphasis on diagnostic, prognostic, and predictive biomarkers used in the pathologic evaluation of different types of brain tumor.

Dermatological Cryosurgery and Cryotherapy.

Edited by W. Abramovits, G. Graham, Y. Har-Shai, R. Strumia.
2016, pp 758, Eur 245.03, ISBN: 978-1-4471-6764-8.
Springer Verlag, London, UK.

Highlighting the available evidence base, this book is the most authoritative manual for clinicians based upon the risks and benefits of the procedure across all indications with special emphasis on a

comprehensive review of the many skin lesions amenable to treatment with cryosurgery Practical and yet comprehensive in outlook, in this a group of international authorities in all aspects of cryosurgery and cryotherapy present the most comprehensive clinically relevant reference for practicing dermatology physicians.

Mitochondria and Cell Death.

Edited D.M. Hockenbery.

2016, pp 232, Eur 144.44, ISBN: 978-1-4939-3610-6.
Springer Science+Business Media, New York, NY, USA.

This volume examines the role of mitochondria in different types of cell death, including apoptotic and necrotic cell deaths. Topics discussed include mitochondrial outer membrane permeabilization (MOMP) and the permeability transition pore; core processes such as calcium handling, fission and fusion, reactive oxygen species generation, and maintenance of mitochondrial DNA fidelity and protein folding homeostasis; and retrograde signaling between mitochondria and other cellular components, including the important role of mitochondria in antiviral immunity. The expertly authored chapters are drawn from multidisciplinary international perspectives, lending a nuanced and comprehensive approach to the material.

Mitochondria and Cell Death, part of the *Cell Death in Biology and Diseases series*, is invaluable reading for graduate students, researchers, and clinicians in the fields of neuroscience, oncology, gastroenterology, and hepatology, as well as those interested in the study of mitochondria and cell biology.

Reviews of Physiology, Biochemistry and Pharmacology.

Edited by B. Nilius, T. Gudermann, R. Jahn, R. Lill, O.H. Peterson, P.P. de Tombe.

2016, pp 127, Eur 106.99, ISBN: 978-3-319-22502-9.
Springer International Publishing, Cham, Switzerland.

In a form immediately useful to scientists, this periodical aims at providing high quality, in-depth reviews covering the full range of modern physiology, biochemistry and pharmacology.

Focus on Bio-Image Informatics.

Edited by W.H. de Vos, S. Munck, J.-P. Timmermans.
2016, pp 272, Eur 149.79, ISBN: 978-3-319-28547-4.
Springer International Publishing, Cham, Switzerland.

This volume of *Advances Anatomy Embryology and Cell Biology* focuses on the emerging field of bio-image informatics, presenting novel and exciting ways of handling and interpreting large image data sets. A collection of focused reviews written by key players in the field highlights the major directions and provides an excellent reference work for both young and experienced researchers.

Cancer and Zebrafish. Mechanisms, Techniques, and Models.

Edited by D.M. Langenau.

2016, pp 552, Eur 213.99, ISBN: 978-3-319-30652-0.
Springer International Publishing, Cham, Switzerland.

This volume focuses on defining the unique attributes of using the zebrafish cancer model for discovering important pathways and potential drug targets for the treatment of human cancers. Using the zebrafish model, the volume explores oncogene and tumor suppressor discovery, chemical genetic approaches, genomics, epigenetics, cancer imaging, and cell transplantation. Contributed chapters come from the most prominent laboratories working in this field, which provides a unique perspective on zebrafish models from a wide spectrum of the research community. In addition, the book offers a detailed analysis of the most current research in the area for specific zebrafish cancer models, including T cell leukemia, rhabdomyosarcoma, liver and pancreatic cancer, melanoma, neuroblastoma, germ cell tumors, and malignant peripheral sheath tumors. A chapter is also dedicated to the development and utilization of other piscine models of cancer. The compilation of chapters in the volume culminates into a comprehensive and definitive text on zebrafish and cancer, providing a much needed resource on the powerful attributes of the zebrafish model system.