

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.

Meaning-Centered Psychotherapy for Cancer Caregivers.

Therapist Manual and Caregiver Workbook.

Edited by J. Applebaum, W. Breitbart.

2024, pp 160, GBP 29.99, ISBN: 9780197640777.

Oxford University Press, Oxford, UK.

Caregiving is a physically, emotionally, socially, existentially, and financially demanding role that touches most people at some point in their lives. Without support, caregivers are at risk for their own physical and medical problems. Despite being a source of suffering, it at the same time presents an opportunity to connect to meaning and purpose. The authors of this book developed Meaning-Centered Psychotherapy for Cancer Caregivers (MCP-C), the first targeted therapy to comprehensively address existential distress and suffering in caregivers. Across seven sessions and through a series of didactic and experiential exercises, caregivers are guided to explore various sources of meaning in life that can become resources for them, especially when the challenges of caregiving are great.

In this manual, the reader will find an overview and background on MCP-C, and in-depth descriptions of each of the seven sessions, with sample therapist scripts and handouts for caregivers engaged in MCP-C. It also includes a case example to bring the material to life. The goal of MCP-C is to provide caregivers with the tools needed to live life as fully as possible, despite the many challenges they face. Research on MCP-C with caregivers of patients with various sites and stages of cancer and across the caregiving trajectory supports the underlying mission of MCP-C: suffering is unavoidable but meaning and purpose is always possible.

Immunobiology of COVID-19. 1st Edition, Volume 202.

Edited by A. Zaidi.

2024, pp 300, USD 145.35, ISBN: 9780443132858.

Academic Press, Elsevier, Cambridge, MA, USA.

Immunobiology of COVID19, Volume 202 in the Progress in Molecular Biology and Translational Science Series provides a comprehensive and in-depth exploration of the SARS-CoV-2 virus and its impact on human health. Written by a team of expert contributors, the book covers various aspects of the virus, including its structure, lifecycle, and genomic replication. It delves

into the epidemiology of COVID-19, comparing it with other related coronaviruses and discussing the concept of herd immunity. The structural biology of SARS-CoV-2 is examined, with a focus on techniques such as electron microscopy and cryo-electron tomography. The book also explores the biology of SARS-CoV-2 variants and their immune evasion strategies. Furthermore, it delves into the pathogenesis of COVID-19, examining its multiorgan manifestations and the long-term effects of the disease. The innate and adaptive immune responses to SARS-CoV-2 are discussed in detail, along with the role of B cells and T cells in the immune response. The volume concludes with a look at future insights and potential developments in the field. Accompanied by illustrative diagrams and visuals, this volume will serve as a valuable resource for researchers, healthcare professionals, and anyone interested in understanding the intricate details of SARS-CoV-2 and its impact on global health.

Key Features: Provides comprehensive coverage of various aspects of the COVID-19 pandemic, including virus structure, variants, immune responses, and disease pathogenesis, including its multiorgan manifestations and long COVID; Focuses on in-depth analysis of innate and adaptive immune responses to SARS-CoV-2, including B cell and T cell responses; Presents a richly illustrated resource with informative diagrams and visual aids to enhance understanding of complex concepts and structures related to COVID-19.

Immune Checkpoint Biology in Health and Disease. 1st Edition, Volume 382.

Edited by L. Galluzzi, A. Garg.

2024, pp 277, USD 203.15, ISBN: 9780443135743.

Academic Press, Elsevier, Cambridge, MA, USA.

Immune Checkpoint Biology in Health and Disease, Volume 382 provides in-depth reviews on the latest progress concerning research on immune-checkpoint biology and its immunotherapeutic implications, especially in cancer. Topics connected to immune-checkpoint biology covered in this volume include Novel technologies for applying immune checkpoint blockers, Next-generation deconvolution of transcriptomic data to investigate the tumor microenvironment, Immune checkpoints targeting dendritic cells for antibody-based modulation in cancer, Immune checkpoint biology in health & disease: Immune checkpoint biology and autoimmunity in cancer patients, and much more.

Other sections cover Recent advancements in tumor microenvironment landscaping for target selection and response prediction in immune checkpoint therapies achieved through spatial protein multiplexing analysis, Immune Modulation During Anti-Cancer Radio(immuno)therapy, and Preconditioning with immunogenic cell death-inducing treatments for subsequent immunotherapy.

Cellular Senescence and Aging. 1st Edition, Volume 181.

Edited by G. Petroni, O. Kepp, L. Galluzzi.

2024, pp 318, USD 148.75, ISBN: 9780443188978.

Academic Press, Elsevier, Cambridge, MA, USA.

Cellular Senescence and Aging, Volume 181 in the Methods in Cell Biology series, highlights new advances in the field, with this new volume presenting interesting chapters on topics such as assessing polyglutamine tract aggregation in the nematode *Caenorhabditis elegans*, Generation of glial cell-derived neurotrophic factor (gdnf) morphants in zebrafish larvae by cerebroventricular microinjection of vivo morpholino, Methods for detection of mitochondrial reactive oxygen species in senescent cells, Assessment of cell cycle progression and mitotic slippage by videomicroscopy. The original colorimetric method to detect cellular senescence, and more.

Additional sections cover Assessing microbiota composition in the context of aging, Assessing chronological aging in *Saccharomyces cerevisiae*, Image processing and supervised machine learning for retinal microglia characterization in senescence, Measuring telomerase activity using TRAP assays, High throughput assessment of cellular senescence, Detection of radiation-induced senescence by the Debaq-Chainiaux protocol: Improvements and upgrade in the detection of positive events, Dynamic and scalable assessment of the senescence-associated secretory phenotype (SASP), Flow cytometry-assisted quantification of cell cycle arrest in cancer cells treated with CDK4/6 inhibitors, and more.

Molecular Biology of B Cells. 3rd Edition.

Edited by T. Honjo, M. Reth, A. Radbruch, F. Alt, A. Martin.

2024, pp 622, USD 170.00, ISBN: 9780323958967.

Academic Press, Elsevier, Cambridge, MA, USA.

Molecular Biology of B Cells, Third Edition provides a comprehensive reference on how B cells are generated, selected, activated, and engaged in antibody production. These developmental and stimulatory processes are described in molecular, immunological, and genetic terms to give a clear understanding of complex phenotypes. The book offers an integrated view of B cells to produce a normal immune response as a constant, and the molecular basis of numerous diseases due to B cell abnormality. This new edition provides updated research on B cell development and function, the use of therapeutic antibodies in cancer and infectious disease, and more. With updated research and continued comprehensive coverage of all aspects of B cell biology, *Molecular Biology of B Cells*, this updated release is a definitive resource, vital for researchers across molecular biology, immunology, and genetics.

Key Features: Provides new research on normal versus abnormal B cell development and function; Contains studies on therapeutic antibodies in cancer and infectious diseases; Covers research on therapeutically targeting B cells in inflammation or autoimmune diseases.

Targeting Angiogenesis, Inflammation and Oxidative Stress in Chronic Diseases **Angiogenesis, Inflammation and Oxidative Stress in Chronic Diseases.**

Edited by T. Behl, S. Singh, N. Sharma.

2024, pp 522, USD 161.50, ISBN: 9780443135880.

Academic Press, Elsevier, Cambridge, MA, USA.

Targeting Angiogenesis, Inflammation and Oxidative Stress in Chronic Diseases presents recent advances in the vivid molecular pathways targeting angiogenesis, inflammation, and oxidative stress that contribute very widely to the genesis of chronic diseases. The book highlights drugs from natural and synthetic origins in the management/prevention/treatment of diseases, along with the drug delivery approaches. The book's authors from various key institutions around the globe deliver well-structured and designed chapters. The systematic presented information and knowledge will surely aid consistency and continuity. The multifaceted book is enriched with deep scientific content. Each chapter clearly defines the facts, the emerging role of molecular pathways, and targets and focus, along with key challenges and future directions that will provide new areas for researchers to explore new targets in the domain.

Key Features: Focuses on the pathogenesis of the disease, along with the molecular mechanism of action; Includes updates on strategic design/delivery of drugs targeting angiogenesis, inflammation, and oxidative stress; Provides recent advancements in the field of pathogenesis of chronic diseases.

Safe Major Hepatectomy after Preoperative Liver Regeneration.

Preoperative PVE, Two-Stage Hepatectomy, ALPPS and Hepatic Vein Deprivation.

Edited by Y. Sakamoto, M. Makuuchi.

2024, pp 480, USD 148.75, ISBN: 9780323996990.

Academic Press, Elsevier, Cambridge, MA, USA.

Safe Major Hepatectomy After Preoperative Liver Regeneration: Preoperative PVE, Two-Stage Hepatectomy, ALPPS and Hepatic Vein Deprivation provides both history and recent topics of major hepatectomy after liver regeneration—as well as the basic background of liver regeneration—allowing liver surgeons, general surgeons, and hepatologists to increase the safety of major hepatectomy in patients suffering from advanced liver disease. This reference provides importance guidance to cutting edge topics, including the molecular mechanism of liver regeneration after preoperative portal vein embolization (PVE), two-stage hepatectomy, associating liver partition and portal vein occlusion for staged hepatectomy (ALPPS) and results of hepatic vein occlusion.

The mortality rate after major hepatectomies is high worldwide and there is a need to establish a strategy for safe major hepatectomies, and hepatectomy after preoperative liver regeneration is a key process to prevent posthepatectomy liver failure (PHLF).

Key Features: Covers various methods of accelerating regeneration of the hemiliver volume, such as portal vein embolization (PVE), two-stage hepatectomy, associating liver partition and portal vein occlusion for staged hepatectomy (ALPPS) and hepatic vein occlusion; Provides guidance to increase future liver remnant (FLR) volume as the key to avoid posthepatectomy liver failure and succeeding patients' death after major hepatectomy; Helps guide the optimal way to program major surgery with decreased risk of liver failure.

Clinical Aspects of Multiple Sclerosis Essentials and Current Updates. 1st Edition.*Edited by S. Sriwastava, E. Bernitsas.*

2024, pp 402, USD 127.50, ISBN: 9780323953429.

Academic Press, Elsevier, Cambridge, MA, USA.

Clinical Aspects of Multiple Sclerosis Essentials and Current Updates offers readers a comprehensive and up-to-date analysis of multiple sclerosis (MS) and its related disorders, providing the latest research findings and insights to ensure readers are well informed. This book thoroughly examines the underlying genetic factors contributing to the development of the disease while emphasizing the significant role of vitamin D in both the pathogenesis and treatment of MS. Furthermore, this book provides essential information on current treatment guidelines for effectively managing MS during pregnancy. This includes a specific focus on optimizing outcomes and addressing the complexities involved, healthcare professionals are equipped to handle the challenges presented by this specific patient population. Overall, this book delivers meticulous, updated, and extensive information on all aspects of MS, from demographic features and etiopathogenesis to the latest diagnostic and therapeutic interventions. With a focus on delivering valuable knowledge and practical insights, *Clinical Aspects of Multiple Sclerosis Essentials and Current Updates* serves as an essential resource for healthcare professionals and researchers seeking a deeper understanding of MS.

Key Features: Explores the practical applications of optical coherence tomography (OCT) and OCT angiography (OCTA) in assessing MS; Delves into utilizing advanced imaging modalities and corresponding radiological findings for the diagnosis and monitoring; Includes cutting-edge technologies: 7 Tesla (7T) magnetic resonance imaging (MRI), diffusion tensor imaging (DTI), positron emission tomography (PET), and magnetic resonance spectroscopy (MR spectroscopy).

Computational Biology for Stem Cell Research. 1st Edition.*Edited by P. Raghav, R. Kumar, A. Lathwal, N. Sharma.*

2023, pp 750, USD 170.00, ISBN: 9780443132216.

Academic Press, Elsevier, Cambridge, MA, USA.

Computational Biology for Stem Cell Research seamlessly bridges the gap between the worlds of biomedical sciences and in silico computational methods. This book serves as a valuable resource for researchers and students, enabling them to grasp and delve into the intricacies of hematopoietic Stem Cells (HSCs) and mesenchymal Stem Cells (MSCs) through the lens of computational biology. This perspective sheds light on stem cell transplantation, translational research, and unique properties of stem cells like self-renewal and differentiation. In addition to introducing readers to stem cell-focused bioinformatics tools, this resource offers a clear pathway for effortlessly merging in silico methods with traditional in vitro and in vivo approaches.

Computational Biology for Stem Cell Research combines science and technology to showcase how computational methods transform stem cell research by reducing costs and enhancing investigations.

The chapters uncover various approaches, from machine learning to genome analysis, for studying networks, protein interactions, dynamics, and the preprocessing of large datasets. The book aims to give readers a broad view of the advanced computational tools and methods extensively employed in stem cell research. Additionally, the book emphasizes the ongoing studies and tools yet to be developed for furthering stem cell research.

Key Features: Modeling Stem Cell Behavior: Explore stem cell behavior through animal models, bridging laboratory studies to real-world clinical allogeneic HSC transplantation (HSCT) scenarios; Bioinformatics-Driven Translational Research: Navigate a path from bench to bedside with cutting-edge bioinformatics approaches, translating computational insights into tangible advancements in stem cell research and medical applications; Interdisciplinary Resource: Discover a single comprehensive resource catering to biomedical sciences, life sciences, and chemistry fields, offering essential insights into computational tools vital for modern research.

Living Donor Organ Transplantation. 2nd Edition.*Edited by R.W.G. Gruessner, E. Benedetti.*

2024, pp 1664, USD 255.00, ISBN: 9780443235726.

Academic Press, Elsevier, Cambridge, MA, USA.

Living Donor Organ Transplantation, Second Edition puts the entire discipline in perspective while guiding readers step-by-step through the most common organ transplant surgeries. This two-volume set is organized into five cohesive parts, and featuring numerous surgical illustrations, this sourcebook delivers an incisive look at every key consideration for general surgeons who perform transplantations, from patient selection to recipient workup and outcomes. The books emphasize the most humanitarian approaches and provide content on living donor uterus transplantation, new operative techniques, including the use of robotic and minimally invasive transplant procedures, new immunosuppressive regimens, new protocols of tolerance induction, including stem cell therapy and transplantation, and more.

Chapter authors are international leaders in their fields and represent institutions from four continents (Americas: USA, Argentina, Brazil, Canada; Europe: France, Germany, Italy, Spain, Sweden, UK; Asia: China, Japan, Korea, Taiwan; Australia).

Key Features: Provides an A-Z, operation-oriented guide to the field of living donor organ transplantation; Examines a wide spectrum of solid organ transplantation procedures (liver, pancreas, kidney, intestine), with accompanying chapters on the history of the procedure, the donor, the recipient, and cost analysis; Covers techniques that explain adequate pretransplant workup and posttransplant care; Covers cultural differences, ethical and legal issues, social issues, current financial incentives, and the illegal organ trade.

Advances in Protein Chemistry and Structural Biology. 1st Edition, Volume 138.*Edited by R. Donev.*

2024, pp 488, USD 145.35, ISBN: 9780443193439.

Academic Press, Elsevier, Cambridge, MA, USA.

Advances in Protein Chemistry and Structural Biology, Volume 138 covers reviews of methodology and research in all aspects of protein chemistry, including purification/expression, proteomics, modeling and structural determination and design. Chapters in this release include Proteomic Applications in Identifying Protein-Protein Interactions, Understanding functions of eEF1 translation elongation factors beyond translation. A proteomic approach, Proteomics provides insights into theranostic potential of extracellular vesicles, Towards a shareable functional analysis of the structural proteome, Functional unfoldomics, In-silico Network Pharmacology Study on Glycyrrhiza glabra: Analyzing the Immune-Boosting phytochemical properties of Siddha Medicinal Plant against COVID-19, and more.

Other chapters cover In silico Network Pharmacology Analysis and Molecular Docking Validation of Swasa Kudori for Screening Druggable Phytoconstituents of Asthma, Proteomics and Genomics Insights on Malignant Osteosarcoma, Application of functional proteomics in understanding RNA Virus-Mediated Infection, Biofilm proteome of Staphylococcus aureus: implications for therapeutic interventions to biofilm-associated infections, A computational pipeline elucidating functions of conserved hypothetical Trypanosoma cruzi proteins based on public proteomic data, Functional Proteomics based on Protein Microarray Technology for Biomedical Research, and an Analysis of endoglucanases production using proteomics and metatranscriptomics.

Next-Generation Smart Biosensing, Nano-Platforms, Nano-Microfluidics Interfaces, and Emerging Applications of Quantum Sensing.

Edited by K.R. Khondakar, A.K. Kaushik.

2024, pp 350, USD 127.50, ISBN: 9780323972727.

Academic Press, Elsevier, Cambridge, MA, USA.

Next-Generation Smart Biosensing: Nano-Platforms, Nano-Microfluidics Interfaces, and Emerging Applications of Quantum Sensing provides broad multidisciplinary coverage of innovative quantum sensing technologies suitable to industries in the engineering, biomedical, healthcare and environmental sectors. Sections discuss emerging quantum sensing and with an introduction to microfluidic devices, smart sensors, the role of nanotechnology, smart sensing, and the role of quantum technology and artificial intelligence for nano-enabled microfluidics. Sensing technologies and nano-enabled microfluidics and their biomedical and industrial applications are explored. This will be a useful resource for those in research and industry interested in biotechnology, nanotechnology, sensing technology and their applications in multidisciplinary fields.

Key Features: Provides an introduction to the types of microfluidic devices, smart sensors, and the role of nanotechnology; Covers smart sensing for multidisciplinary sectors; Explores the challenges and prospects of nano-microfluidics systems.