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MEDICINE AND HEALTH
Dementia, Diabetes, and Hypertension: Is There a Unified Theory through a Dysregulation of the Ca2+ Homeostasis?
Leandro Bueno Bergantin, PhD (Universidade Federal de São Paulo, Bentham Brand Ambassador, Jardim Brasil, Limeira, Brazil)

In series: Research Progress in Alzheimer’s Disease and Dementia
Publication Date: 02/17/2021
155 pp.
Softcover: 978-1-53619-227-8. $95.00
e-book: 978-1-53619-286-5. $95.00

Dementia, diabetes, and hypertension are considered huge medical problems around the world, costing many millions of dollars to the medical health systems. Curiously, hypertension has been clinically linked with a higher risk for decline of cognition, as shown in dementia patients. In addition, there is a clear clinical association between hypertension and diabetes, reflecting substantial similarities in their etiology. In fact, consistent data support that patients diagnosed with diabetes have shown an increased risk of presenting cognitive dysfunctions, clinical signs of dementia. Considering the cumulative knowledge from the scientific literature, we can now link Ca2+ signals dysregulations as an upstream issue for hypertension, diabetes and other inflammatory processes, and dementia. Regarding therapeutics, hypertensive patients have been classically treated with Ca2+ channel blockers (CCBs), medicines whose mechanism of action consists in reducing the influx of Ca2+ into the cells. Intriguingly, many clinical reports have been demonstrating off-label effects for CCBs. In hypertensive patients treated with CCBs, it can be observed a lower incidence of dementia such as Alzheimer’s disease. The possible mechanism of action could be attributed to a restoration of the Ca2+ homeostasis. In addition, in hypertensive patients treated with CCBs, it can be also observed an improvement of diabetes status such as glycemic control. A possible mechanism of action could be due to a restoration of insulin secretion, then achieving glycemic control, and a reduction of the pancreatic β-cell apoptosis. Thus, this book puts together fundamental concepts, and current therapies to treat dementia, hypertension, and diabetes, including novel therapeutics coming from the pharmacological manipulation of Ca2+/cAMP signalling. Finally, this book compiles more than 300 references from the scientific literature, including data of high evidence such as meta-analysis and systematic reviews, and discusses pharmaceuticals already approved and clinically safe, e.g., CCBs, then allowing sustained increments in the life quality of age-related patients.

Anthropometry: Types, Uses and Applications
Sébastien Legrand
In series: Human Anatomy and Physiology
Publication Date: 02/17/2021
120 pp.
Softcover: 978-1-53619-269-8. $82.00
e-book: 978-1-53619-293-3. $82.00

Anthropometry: Types, Uses and Applications, the science of anthropometry, which deals with measurements of human size, shape and proportion, is examined in the context of obesity and overweight, common problems in developed countries and developing countries alike. An estimated 39% of the world’s adult population were overweight and 13% were obese over the past 3 decades, and these problems can cause diseases like type 2 diabetes mellitus (T2DM), cardiovascular diseases (CVD), and several cancers. While body mass index (BMI) is commonly used as a health risk phenotype, it has several limitations because BMI does not accurately depict different components of body composition and is therefore unable to predict the prognostic effect of individual tissues. Other anthropometric measurements, such as waist circumference (WC), waist to hip ratio (WHR), and waist to height ratio (WHtR) each have their advantages and disadvantages. As such, in Chapter 1, different novel anthropometric parameters and cardiovascular risk factors among obesity adults are compared and evaluated. Chapter 2 describes a study of children aged 0-12 years conducted in the Middle Senegal River Valley (MISOES) in 1957-1958. This study was based on representative samples of children in urban and rural areas and included measurements of weight, height, arm circumference, and more. These measurements were compared with American standards and showed an overwhelming anthropometric deficit compared with standards. This study is examined in the context of other studies.
conducted in the region as well as in connection with economic development in the valley. Chapter 3 describes the various methods of assessing body fat and their application for obese individuals to predict the risk of Coronary Heart Disease (CHD), and Chapter 4 reviews the effect of different modalities of physical exercise on anthropometric measurements and body composition in different populations of older adults.

New Studies on Anthropometry
Ricardo J. Fernandes (Associated Professor, Centre of Research, Education, Innovation and Intervention in Sport, Faculty of Sport, University of Porto, Portugal; Porto Biomechanics Laboratory, University of Porto, Portugal), Alexandre Igor Araripe Medeiros (Adjunct Professor, Federal University of Ceara, Fortaleza, Brazil & Master Program in Physiotherapy and Functioning, Federal University of Ceara, Fortaleza, Brazil) and Rui Garganta (Associated Professor, Faculty of Sport, University of Porto, Portugal)

By centring its attention on the measurement of the human body and its parts, anthropometry uses diverse methods and instruments, and is useful for a variety of purposes. In a permanently changing world, with science having a fundamental role in modern societies, this book gathers important anthropometric related research from around the globe in a wide field of applications. Readers will be able to get closer to experimental data and literature reviews on different areas, from medical dentistry and podiatry to health and sport sciences. This book will be of interest to graduates, teachers, researchers and general workers in medicine, kinesiology, ergonomics, orthopaedics, motor development and sport sciences and health. In addition, coaches and strength and conditioning staff can use this data to improve the training process. The fifteen chapters allow a better grasp on the science behind anthropometrics and permit to make the bridge between theory and practice by revisiting basic theory and introducing highly specialized topics. Chapters feature helpful tables and illustrations, and a wide list of bibliographic references and key points are presented in the Conclusion for ease of comprehension.

Management of Postoperative Pain within ERAS Protocols in Surgery
Jaime Ruiz-Tovar, MD, PhD (Department of Bariatric Surgery, Garcilaso Clinic, Madrid, Spain; Professor of Surgery, Universidad Rey Juan Carlos, Madrid, Spain and Professor of Surgery, Universidad Alfonso X, Madrid, Spain)

Enhanced recovery after surgery (ERAS) programs are a multidisciplinary approach in the perioperative care of the patient undergoing major surgery, including pre, intra and postoperative measures, based on the actual evidence published in literature (evidence-based medicine), to improve the postoperative recovery of the patient. ERAS protocols have been widely developed in colorectal surgery, but given their excellent results, new protocols and guidelines have been developed in other surgical fields, including abdominal and extra-abdominal areas. One of the main keypoints in the multidisciplinary approach is a correct management of postoperative pain. Adequate analgesia implies lower morphine requirements and facilitates early postoperative mobilization. Consequently, lower postoperative ileus and earlier oral intake can be achieved. Altogether, this leads to an improvement of the overall quality of life.
Multimodal analgesia is one of the main tools employed for these aims. It consists of the administration of different analgesic drugs by different ways, reducing the risk of toxicity and the appearance of adverse effects. In addition, the different analgesic methods used provide a synergistic effect, maximizing the analgesic result.

The aim of this book is to update the actual evidence about ERAS protocols on different surgical approaches, analyzing the different analgesic schemes used in different approaches, all of them including the principle of multimodal analgesia.
for quick review. The primary audience for this review book is medical students, surgical residents, and surgical fellows in vascular surgery who are looking for a comprehensive review prior to board examinations and annual in-service testing.

**DENTISTRY**

Dentistry: Advances in Research and Future Directions

Dr. Kirti Chawla (Associate Professor, Department of Periodontology, Faculty of Dentistry, Jamia Millia Islamia, New Delhi, India) and Dr. Lata Goyal (Assistant Professor, Department of Dentistry (Periodontology), All India Institute of Medical Sciences (AIIMS), Bathinda, Punjab, India)

In series: Dentistry and Oral Sciences

Publication Date: 02/10/2021

300 pp.

Hardcover: 978-1-53619-042-7. $230.00

e-book: 978-1-53619-088-5. $230.00

This book focuses on the future direction of dental research in every discipline. In this context, dental research must be deliverable to society, not just to churn out scientific publications but to truly change protocols applied in the clinic. Most of the topics covered in this book discuss the current trends and future advances in clinical dentistry as well as dental research. The book covers advances in research, future perspectives and challenges faced in different disciplines of dentistry. Various chapters discuss the recent advances in materials, methods and diagnostics, as well as their future implications. The contents review the applications of big data, artificial intelligence and machine learning in various branches of dentistry like orthodontics, prosthodontics, periodontics, pediatric dentistry, endodontics and oral and maxillofacial surgery. With the world moving into the digital age and advancing technology, we have collated the latest developments in the field of dental research.

**DERMATOLOGY**

Neurofibromatosis Type 1: Diagnosis, Prevalence and Quality of Life

Richard G. Morgan

In series: Dermatology - Laboratory and Clinical Research

Publication Date: 06/21/2021

132 pp.

Softcover: 978-1-53619-626-9. $82.00

e-book: 978-1-53619-675-7. $82.00

This monograph includes five chapters about neurofibromatosis type 1 (NF1), a condition characterized by changes in skin coloring and the growth of tumors along nerves in the skin, brain, and other parts of the body. Chapter One concerns the evolving molecular biology, targeted therapeutics, and neurocognitive deficits in neurofibromatosis type one. Chapter Two focuses on gastrointestinal stromal tumors and reviews the clinicopathologic features of these tumors and discusses differential diagnostic considerations. Chapter Three explores juvenile myelomonocytic leukemia, a rare hematological malignancy of the pediatric population, and its association with NF1 and distinguishing features in this context. Chapter Four reviews molecular approaches for the diagnosis of NF1, from single-gene testing to next-generation sequencing of gene panels, with a focus on the issues of sensitivity and variant interpretations. Finally, Chapter Five focuses attention on focal cortical dysplasia that has been identified in the population of NF1 patients that have had coexistent hippocampal sclerosis.
**Endocrinology**

**Polycystic Ovary Syndrome: Causes, Diagnosis and Management**

*Katherine Webb*

In series: *Endocrinology Research and Clinical Developments*

Publication Date: 04/27/2021

179 pp.

Softcover: 978-1-53619-527-9, $95.00

e-book: 978-1-53619-586-6, $95.00

This work contains three chapters, each examining the hormonal imbalance disease polycystic ovary syndrome (PCOS) from a different perspective. Chapter 1 describes various characteristics of PCOS and reviews recent approaches for treatment strategies, including antioxidant supplementation, anti-inflammatory agents, and lifestyle modification. Chapter 2 reviews possible health risks and complications of PCOS. Finally, Chapter 3 aims to provide an understanding and wider concept of pathogenesis and intricacy of various pathways pertaining to the heterogeneity of this syndrome that can help to comprehend the disease’s progression in detail.

**Diabetes**

**Diabetes and Diabetic Complications: Current Status and Future Prospective**

*Randhir Singh Dahiya (Professor, M. M. College of Pharmacy, M. M. Deemed To Be University, Mullana, Ambala, India) and Thakur Gurjeet Singh (Assistant Dean & HOD, Chitkara College of Pharmacy, Chitkara University, Punjab, India)*

In series: *Endocrinology Research and Clinical Developments*

Publication Date: 03/24/2021

492 pp.

Hardcover: 978-1-53619-177-6, $270.00

e-book: 978-1-53619-453-1, $270.00

Diabetes mellitus is one of the major causes of morbidity and mortality in the modern world. Persistent hyperglycaemia is responsible for several complications of diabetes, such as diabetic retinopathy, diabetic nephropathy, diabetic neuropathy, diabetic cardiomyopathy, diabetic autonomic neuropathy, diabetic ketoacidosis, diabetic foot ulcer, gestational diabetes, and diabetic mastopathy. With the advancement of technology, several new drugs have been developed for treatment of diabetes and diabetic complications. Moreover, alternative and complementary medicines have also been employed to manage diabetes and its associated complications. Despite the availability of a plethora of therapeutic agents, the management of diabetes and diabetic complications is an uphill battle associated with several limitations. Various leading research groups across the world are investing billions of dollars to develop impeccable solutions for the treatment of diabetes and diabetic complications.

This book focuses on the understanding of recent advancements in the pathogenesis of diabetes and diabetic complications, the molecular basis of the disease and recent advancements in diabetic treatment. The chapters are specifically dedicated to different complications associated with diabetes. Moreover, recent advances in treatments and medications in clinical trials for these complications are explained. Some chapters are dedicated to the use of herbal medicines, alternative and complementary therapy and personalized medicines. Furthermore, the role of epigenetics in diabetic complications is described, as well as the role of antidiabetic drugs and their interactions.

Due to its widespread prevalence, diabetes is presently considered a pandemic. This book provides contemporary information to researchers and health care practitioners about diabetes and diabetic complications, which may pave the way for designing new strategies to manage diabetes and diabetic complications. Moreover, the insights on alternative and complementary medicines will help in providing a background for inclusion of these medicines as an important therapeutic option for treatment of diabetes.
Exercise: Physical, Physiological and Psychological Benefits
Dr. Dulce Esteves, PhD (Professor and Researcher, Head of Sports Science Department, University of Beira Interior, Covilhã, Portugal) and Dr. Kiara Lewis, FBASES (Head of School, Sport and Exercise, University of Gloucestershire, Oxstalls Campus, Gloucester, UK)

In series: Physical Fitness, Diet and Exercise
Publication Date: 07/22/2021
386 pp.
Hardcover: 978-1-53619-712-9. $230.00
e-book: 978-1-53619-819-5. $230.00

This book presents an overall vision of different aspects of benefits of exercise, such as emotional and psychological benefits, role of exercise in insulin regulation, benefits in conditions such as fibromyalgia, oncologic disease, rheumatic inflammatory diseases, polycystic ovary syndrome, oral health, dementia, mental health and autism spectrum. Potentialities of aquatic exercise for health are also addressed.

Developed within a base of scientific accuracy and precision, this book aims to accomplish a general synthesis of the topics included, so that it can be a scientific dissemination book for students and professionals in the field of fitness, who seek to update their scientific knowledge about the benefits of exercise in different areas of health, as well as the type of exercise that should be performed to prevent different pathologies, but who are not readers of scientific journals. Therefore, this book is a must read for fitness professionals, sport scientists, sports students, and for anyone who wants to deepen their knowledge about the benefits of exercise in different pathologies, and in health in general.

Gastroenterology
Gut Bacteria: The Secret to Health
Dr. Ujjwal Sonika (Associate Professor, Department of Gastroenterology, GIPMER, Maulana Azad Medical College, University of Delhi, India) and Dr. Medha Kapoor (Chief Nutrition Consultant, Varsity Skin and Wellness Clinic, New Delhi, India)

In series: New Developments in Medical Research
Publication Date: 01/29/2021
167 pp.
Softcover: 978-1-53619-084-7. $95.00
e-book: 978-1-53619-144-8. $95.00

This book summarizes the latest scientific research around the influence of gut bacteria on health and well-being as well as their impact on lifestyle diseases. Information is presented in easy-to-understand language and is interspersed with fun facts and anecdotal accounts, which help the audience acquire this fundamental and relevant scientific knowledge.

The authors explain the influence of gut bacteria on physical and mental well-being in language friendly to laypeople. They then share insights about the role of gut bacteria in various lifestyle diseases such as diabetes, obesity, and metabolic syndrome utilizing the latest published research in peer-reviewed journals. The information provided in this book is useful to anyone who wants to lead a healthy life. It is worth reading even for health care professionals as their current curriculum does not entail extensive information about gut bacteria and their significance in health.
Probiotics and their Role in Health and Disease

Yusuf Olsen

In series: Gastroenterology Research and Clinical Developments

Publication Date: 08/11/2021

256 pp.

Hardcover: 978-1-53619-965-9. $195.00
e-book: 978-1-53619-997-0. $195.00

Probiotics are live microorganisms that, when consumed, can provide health benefits, generally by improving or restoring the gut flora. As probiotics have become increasingly popular in recent years, it is important for consumers and clinicians to understand the details of the potential health effects of these supplements. Chapter 1 focuses on the relationship between different types of milk, the growth of probiotics, and relevant characteristics regarding viability, the quality of the dairy product, and the production of undesirable components. Chapter 2 summarizes studies on the probiotic impact of functional foods on the immune system and analyzes the future of the probiotic functional food market. Chapter 3 describes pathways and mechanisms through which probiotics may improve hypothyroidism and its complications. Chapter 4 presents a literature review of intestinal microbiota and bone health and discusses the effectiveness of probiotics in the treatment and prevention of osteoporosis. Chapter 5 presents an FTIR analysis of protein/peptide-based biopolymers used for probiotic encapsulation. Lastly, Chapter 6 collates experimental studies on probiotics with ameliorative effects on arsenic toxicity.

GENETICS

Down Syndrome

Excelling in Life with Down Syndrome

Vee Prasher, MD, PhD (Consultant and Visiting Professor, The Greenfields, Birmingham, UK) and Flavia H Santos, PhD (Assistant Professor, UCD Ad Astra Fellow, School of Psychology, University College Dublin, Ireland)

In series: Disability and the Disabled - Issues, Laws and Programs

Publication Date: 06/02/2021

283 pp.

Hardcover: 978-1-53619-484-5. $195.00
e-book: 978-1-53619-740-2. $195.00

Life expectancy for adults with Down syndrome has dramatically increased over the last 100 years. Many people with Down syndrome are now living into their 60’s and 70’s. Further, there has been a marked social shift in people with Down syndrome no longer living in large impersonal institutions but now living in the community, often within their family homes or independently. Children are becoming literate and adolescents are acquiring professions and hobbies. This integration into society results in a higher quality of life. Many previously published textbooks have reviewed the medical and psychological conditions associated with Down syndrome. This book aims to highlight the more positive aspects of the life of people with Down syndrome. Fruitful examples, such as the Special Olympics, camping, arts, digital literacy and citizenship actions are included. The book presents early childhood interventions, transition of children to adults, experience with PALS programs, the role of positive behavior support and self-directed support, and finally optimal aging. The aim of this book is primarily to educate families, carers and professionals that people with Down syndrome can achieve excellent well-being in physical, mental and spiritual domains. One’s ability to maximize their own well-being is a human right which also reduces risks and costs associated with mental illness. We hope this book highlights the importance for children and adults with Down syndrome to be seen as valued citizens of their community and allows their voices to be heard.
Stem Cells

**Stem Cells in Disease Pathogenesis**
*Prasad S. Koka (Chief Scientific Director and Professor of DiponEd Institute of Regenerative Medicine Merisis Therapeutics – DiponEd BioIntelligence, Bangalore, India)*

In series: *Stem Cells - Laboratory and Clinical Research*
Publication Date: 06/11/2021
473 pp.
Hardcover: 978-1-53619-630-6, $230.00
e-book: 978-1-53619-658-0, $230.00

The normal functioning of the human female reproductive system is sacrosanct, as it allows for the essential nurturing of offspring. Conditions such as endometriosis and fibroid formation can have devastating consequences to the progeny, as well as the parents, both physically and mentally. This book has several chapters that deal with the role of stem cells in the safer outcome of pregnancies.

Mesenchymal stem cells continue to make waves as various researchers dwell on their low immunogenicity to prevent graft rejection when used for therapeutic strategies. Dental pulp-derived stem cells are being sought after to address many therapies. However, researchers must exercise ethical caution to avoid resorting to pulling out the teeth of live, healthy animals, including those qualified for pets.

The efficacy of cancer treatments with naturally occurring plant-derived substances and the characterization of cancer stem cells and lesions continue to engage researchers of this ever-perennial disease and its potentially lethal pathology.

Stem cells to replenish the pancreatic islet cells from induced pluripotent stem cells are an actively pursued subject in regenerative medicine for diabetes patients. Stem cells in immune responses are also attracting researchers to investigate immune tolerance and autoimmunity.

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**Geriatrics**

**Care of the Older African Adult**
*Seki A. Balogun (Director, Geriatrics Fellowship Program, Associate Professor, Internal Medicine and Geriatric Medicine, Division of General Medicine, Geriatrics and Palliative Care, University of Virginia Health System, Charlottesville, VA, USA)*

In series: *Geriatrics, Gerontology and Elderly Issues*
Publication Date: 03/17/2021
317 pp.
Hardcover: 978-1-53619-295-7, $230.00
e-book: 978-1-53619-395-4, $230.00

Geriatric medicine is generally defined as medical care for adults aged 65 years and older. In Africa and in many developing countries, where the average life expectancy is less than 65 years, medical care of the older adult is still being defined and is in its infancy stages. There are also disparities in health and health care of older adults of African origin in most countries across the world. The aim of this book is to provide a clinical practice resource for physicians and allied health professionals, as they deliver clinical care for older adults of African descent all over the world. It is not intended to be a comprehensive textbook for geriatric medicine. Instead, we focus on common health care issues and unique cultural characteristics that often impact health care utilization in this vulnerable subset of older adults. Chapter authors are medical experts from across several continents, with extensive training and experience in providing medical care for older adults of African descent.
The Future of Long-Term Care
Pablo Villalobos Dintrans (Programa Centro Salud Pública, Facultad de Ciencias Médicas, Universidad de Santiago, Santiago, Chile)
In series: Geriatrics, Gerontology and Elderly Issues
Publication Date: 03/17/2021
260 pp.
Hardcover: 978-1-53619-263-6. $195.00
e-book: 978-1-53619-396-1. $195.00
Population aging is challenging countries around the globe to adapt their public policy responses to the new world. Long-term care is a relevant topic today both because of the rapid growth in long-term care needs in every country and the lack of responses from governments. The Future of Long-term Care explores some issues related to the implementation of long-term care responses in different countries. Looking at six different cases, the book highlights the need to foster an urgent debate in the area, as well as emphasizing the need for action in the coming years. The examples analyzed show common problems faced by countries trying to respond to their people’s needs, as well as the dissimilar stages, contexts, and paths followed by each one in the endeavour for providing long-term care services to the population. Whether the analysis is carried out in countries with well-established long-term care systems or in places where the debate is just starting, the book proves that this is an area in which many challenges remain. Learning lessons from others is important but providing a space for countries to frame their problems and propose their solutions is crucial. This book contributes to fill this gap and contribute to a debate that is just starting in many places around the world.

Preexisting Conditions and Healthcare Coverage
Sherman S. Krom
In series: Health Care in Transition
Publication Date: 03/17/2021
394 pp.
Hardcover: 978-1-53619-387-9. $230.00
e-book: 978-1-53619-403-6. $230.00
In the context of healthcare in the United States, a pre-existing condition is a medical condition that started before a person's health insurance went into effect. A pre-existing condition can be something as common as high blood pressure or allergies, or as serious as cancer, type 2 diabetes, or asthma—chronic health problems that affect a large portion of the population. Americans with preexisting conditions need health insurance. This book looks at the legislation concerning preexisting conditions.

Autoimmunity versus Carcinogenesis in Tissue Injury
Lawrence M. Agius
In series: Immunology and Immune System Disorders
Publication Date: 06/10/2021
175 pp.
Softcover: 978-1-53619-610-8. $95.00
e-book: 978-1-53619-660-3. $95.00
This book is a critical appraisal of the data and evidence available in literature of the relative roles of the immune response to neoplastic cells. An attempt has been made to render a better understanding of the various modes of impact of the immune response against tumors in general, particularly gliomas in some of the chapters. Autoimmune response is one mode of reactivity to native component cells within the body. Neoplastic transformation, on the other hand, critically necessitated the absence of an effective immune response to the transformed tumor cells in order for the lesion to grow and
metastasize. This book is aimed towards a wider readership, but its particularly for oncologists and the various clinical and academic professionals that care for patients with cancer. It is especially meant to provide a clear exposition of known facts regarding the genesis and further development of neoplasms. Examples of some of the commoner lesions are accounted for.

**Vaccines: Operation Warp Speed, Regulation and Safety**

*Oliver Huerta*

In series: *Immunology and Immune System Disorders*

Publication Date: 01/13/2021

361 pp.

Hardcover: 978-1-53619-059-5. $230.00

e-book: 978-1-53619-096-0. $230.00

In recent months, the Coronavirus Disease 2019 (COVID-19) pandemic has spread globally, with the United States now reporting the highest number of cases of any country in the world. Currently, there are few treatment options available to lessen the health impact of the disease and no vaccines or other prophylactic treatments to curb the spread of the virus. Researchers and product developers are testing numerous types of vaccines—both in the laboratory and in some early-stage testing in humans. This book answers frequently asked questions about current efforts related to research and development of vaccines, their regulation, and related policy issues.

**INFECTIOUS DISEASE AND MICROBIOLOGY**

**COVID-19 by Cases: A Pandemic Review**

*Sujanthy Rajaram, MD, MPH (Professor of Medicine, Sidney Kimmel Medical College of Thomas Jefferson University, Philadelphia, Pennsylvania, USA, Critical Care Medicine, Gagnon Cardiovascular Institute - Morristown Medical Center, Atlantic Health System, Morristown, New Jersey, USA), Jacqueline Darcey, MD (Assistant Professor of Medicine Sidney Kimmel Medical College of Thomas Jefferson University Director of Medical Education Department of Medicine, Morristown Medical Center, Morristown, New Jersey, USA AAtlantic Health System, Morristown, New Jersey, USA), Anthony Longo, MD (Department of Medicine, Morristown Medical Center, Morristown, New Jersey, USA Atlantic Health System, Morristown, New Jersey, USA) and Nicole Burak, MD (Department of Medicine, Morristown Medical Center, Morristown, New Jersey, USA Atlantic Health System, Morristown, New Jersey, USA)*

In series: *New Developments in Medical Research*

Expected Publication Date: 03/09/2021

442 pp.

Hardcover: 978-1-53619-238-4. $230.00


A clinical account written by front-line providers, COVID-19 by Cases is the first comprehensive review text on COVID-19. As such, the inventive format features a case-based and systems-based review of observations, clinical knowledge, basic science, ethics, and personal experiences during the COVID-19 pandemic. With each systems-based chapter encompassing a case report, literature review, and discussion, COVID-19 by Cases is intended for a broad audience, including clinical providers, clinical educators, and students. It also serves as a standalone account to preserve this unique time in human history. COVID-19 by Cases is a multi-institutional effort with input from hospitalists, outpatient physicians, specialists, residents, nurses, pharmacists, clinical educators, and students.
COVID-19: Vaccine Distribution, Supply and Allocations
James K. Farr
In series: New Developments in Medical Research
Publication Date: 03/17/2021
427 pp.
Hardcover: 978-1-53619-407-4, $230.00
e-book: 978-1-53619-456-2, $230.00
Multiple federal agencies, through Operation Warp Speed, continue to support the development and manufacturing of vaccines and therapeutics to prevent and treat COVID-19. As of January 2021, two of the six vaccines supported by Operation Warp Speed have been authorized for emergency use, and vaccine distribution and administration have begun. Effective coordination and communication among federal agencies, commercial partners, jurisdictions, and providers is critical to successfully deploying COVID-19 vaccines and managing public expectations, especially because the initial supply of vaccine has been limited.

Nephrology and Urology

Kidney Transplantation: Efficacy, Safety and Outcomes
Robert C. Morgan
In series: Nephrology Research and Clinical Developments
Publication Date: 06/28/2021
113 pp.
Softcover: 978-1-53619-721-1, $82.00
e-book: 978-1-53619-823-2, $82.00
Kidney transplantation is a medical procedure performed on patients with end-stage kidney disease that can increase their life expectancy by several years. However, the procedure involves some risk and potential complications. Chapter One of this monograph summarizes the current strategy for diagnosis and treatment of chronic kidney disease-associated mineral bone disease (CKD-MBD) in kidney transplant recipients and aims to demonstrate the latest findings and therapeutic options in the field beyond recent published guidelines. Chapter Two describes the necessity of involving a psychiatrist in the transplant team to facilitate positive outcomes in kidney transplants, as psychological factors can contribute to treatment non-compliance and other issues. Chapter Three defines the surgical techniques used in living donor nephrectomy, discusses the use and reliability of these techniques in different patient groups, and examines the long-term follow-up results of donors and recipients. Lastly, Chapter Four discusses the variables involved in treating patients with autosomal dominant polycystic kidney disease (ADPKD), whose enlarged and deformed kidneys can complicate kidney transplantation.

Neuroscience

Attention-Deficit Hyperactivity Disorder: Diagnosis, Prevalence and Treatment
Brian M. Kyser
In series: Neurology - Laboratory and Clinical Research Developments
Publication Date: 03/26/2021
102 pp.
Softcover: 978-1-53619-443-2, $82.00
e-book: 978-1-53619-469-2, $82.00
This monograph comprises three chapters, each focusing on a different aspect of Attention-Deficit/Hyperactivity Disorder (ADHD). Chapter One presents an overview of diverse pharmacological therapies and differences in the mechanisms of action of psychostimulants, non-psychostimulants, and other treatments for ADHD. Chapter Two evaluates the effects of practical interventions for students with ADHD pursuing higher education. Chapter Three describes how multimedia formats, which simultaneously
provide visual and verbal information, can help students learn by taking advantage of “dual processing,” wherein information is processed through two channels instead of through a single channel. This approach to teaching is speculated to be particularly beneficial for students with ADHD.

**Dizziness: Prevalence, Risk Factors and Management**

*Francesco Martines, MD, PhD (Associate Professor of Audiology, Universita’ degli Studi di Palermo, Palermo, Italy; Istituto Euromediterraneo di Scienza e Tecnologia – IEMEST, Palermo, Italy) and Pietro Salvago, MD, PhD (Medical Doctor and Consultant, Universita’ degli Studi di Palermo Palermo, Italy)*

In series: Neuroscience Research Progress

Publication Date: 05/24/2021

362 pp.

Hardcover: 978-1-53619-668-9. $230.00

e-book: 978-1-53619-692-4. $230.00

Vertigo and dizziness are two conditions whose prevalence throughout an individual’s lifespan is estimated to range from 20% to 50% with a marked incidence regarding women. Starting from the frequency of these symptoms, the book explores different aspects of the otoneurology field and the vestibular diseases, from the anatomy of vestibular organs to the pharmacological, surgical and rehabilitative treatment of posterior labyrinth disorders. In particular, the benign paroxysmal positional vertigo (BPPV), Meniere’s disease and dizziness in patients suffering from temporomandibular joint disorders and vertebral fractures are described. A focus on specific techniques to evaluate vestibular disorders is included and the video head impulse test (vHIT) and vestibular evoked myogenic potentials (VEMPs) application are shown to study each part of the posterior part of the inner ear.

A specific chapter is dedicated to the management of postural disorders in vestibular dysfunctions, from the postural evaluation to the many different protocols of vestibular rehabilitation. The principles of pharmacotherapy are described; medications to treat dizziness and vertigo can include anticholinergics, antihistamines, benzodiazepines and other drugs including antiemetics, sympathomimetic and calcium antagonists.

Finally, the principles underlying the surgical strategies in the management of the vertiginous patients, furthermore a general description of the technical aspects of each procedure are provided to show indications, potentials, limits, and contraindications of vestibular surgery.

**Horizons in Neuroscience Research. Volume 43**

*Andres Costa and Eugenio Villalba*

In series: Horizons in Neuroscience Research

Publication Date: 05/24/2021

229 pp.

Hardcover: 978-1-53619-705-1. $250.00

e-book: 978-1-53619-710-5. $250.00

This book contains twelve chapters describing recent advancements in neuroscience research. Chapter One summarizes the role of cerebrospinal fluid biomarkers in the health and disease of dogs. Chapter Two discusses the neuroprotective effects of erythropoietin. Chapter Three focuses on the development of several mesencephalic areas using tyrosine hydroxylase immunocytochemistry and tritiated thymidine autoradiography. Chapter Four presents a study of the cerebellum of different age members of the same family using gravitational mass spectroscopy. Chapter Five explores how the conformations of nucleosomes and their states in the spirals of solenoids are responsible for the processes of short-term and long-term memory as well as other brain functions. Chapter Six deals with cognitive decline and depression associated with severe asymptomatic carotid stenosis. Chapter Seven describes the surgical technique of extensive craniofacial reconstruction for unilateral anterior plagiocephaly treatment. Chapter Eight gives a model of the molecular cause of pain based on a study of human fingers conducted via gravitational mass spectroscopy. Chapter Nine deals with the role of globules in the work of the brain and the dynamics of their conformations. Chapter Ten explains how chromosome topology is formed in vivo. Chapter Eleven explores the relationship between mild traumatic brain injury and residual cognitive impairment. Finally, Chapter Twelve examines stochastic resonance in the context of human sensory systems.
Hydrocephalus: From Diagnosis to Treatment
Richard D. Campbell
In series: Neurology - Laboratory and Clinical Research Developments
Publication Date: 06/10/2021
156 pp.
Hardcover: 978-1-53619-079-3. $160.00
Softcover: 978-1-53619-620-7. $95.00
e-book: 978-1-53619-086-1. $95.00
This monograph is comprised of seven chapters, each of which discusses hydrocephalus, a chronic neurological condition caused by an abnormal accumulation of cerebrospinal fluid within cavities of the brain. Chapter One provides an overview of hydrocephalus and points out current limitations of understanding this condition. Chapter Two details treatment options for hydrocephalus, including the traditional use of surgery for placement of a shunt as well as more experimental methods. Chapter Three describes an alternate procedure for treating hydrocephalus, called endoscopic third ventriculostomy, which entails creating an opening on the floor of the third ventricle instead of implanting foreign material. Chapter Four also provides information about endoscopic third ventriculostomy, including factors influencing the success rate of the procedure. Chapter Five describes various surgical methods for treating hydrocephalus in children. Chapter Six concerns the technique of neuroendoscopic lavage, which enables a partial or complete hematoma evacuation in addition to haematoccephalus washing. Lastly, Chapter Seven details the rehabilitation process for patients who have undergone surgery for hydrocephalus.

Imaging and Multiomic Biomarker Applications
Yongxia Zhou, PhD (Imaging Scientist, University of Southern California, Los Angeles, CA, USA, Columbia University, New York, NY, USA)
In series: Neuroscience Research Progress
Publication Date: 01/20/2021
251 pp.
Hardcover: 978-1-53619-079-3. $160.00
e-book: 978-1-53619-086-1. $160.00
The well-known Alzheimer’s Disease Neuroimaging Initiative (ADNI) Center provides the most advanced, comprehensive, multiparametric and up-to-date biomarkers for mild cognitive impairment (MCI) and early Alzheimer’s disease (AD) projects, including neuroimaging, clinical assessments, biospecimens and genetic data. Recent developments in imaging techniques, including new molecular tracers for imaging disease burden and systematic multi-modal integration, have emerged to overcome the limitations of each single modality and individual-dependent variability. The MRI-based high-resolution structural and morphological changes in the brain, such as atrophy, and the abnormal activity/connectivity patterns of the hippocampus subfields and default mode network (DMN) modulation, together with the amyloid and tau neuropathological quantification using PET molecular tracers, could be used to predict brain changes and cognitive performance declines in early AD, including transitional MCI. Finally, a generalized and integrative model with multiple biomarkers could be built to target disease progression and symptom prediction as well as to optimize patient management.

Multiomics investigates metabolomic, lipidomic, genomic, transcriptomic and proteomic perspectives by presenting an accurate biochemical profile of the organism in health and disease. The Alzheimer's Disease Metabolomics Consortium (ADMC) in partnership with ADNI is creating a comprehensive biochemical database for patients in the ADNI1 cohort, consisting of eight metabolomics datasets. The vast majorities of biospecimen data provide rich biological information to the human brain at normal and dementia status. One of the purposes is to reveal the connections between disease and multiomics such as obesity, hypertension, cholesterol imbalance and inflammation risks that might lead to neurodegenerative disease. Multiomic biomarker developments in the dementia field have provided earlier clues to novel treatments that help correct metabolic dysfunction and delay disease progression. Furthermore, the assembling of multiomics-based biomarkers including metabolites and lipids, cholesterol biosynthesis, purine metabolism, lipoprotein, bile acids, and genetics as well as their relation to the pathological amyloid and tau network could improve disease diagnosis sensitivity and reveal more diverse and complementary molecular pathways to allow for the advancement of early AD diagnosis and therapeutic prevention. In this book, we report on the significant differences of multiple biomarkers from the ADNI database including neuroimaging, clinical assessments and multiomic biospecimen/genetic data in MCI and early probable AD (pAD), and elucidate the interconnections among different metrics at various domains. Classification results with high accuracies (0.95-1) for each early dementia subtype including early MCI (EMCI), late MCI (LMCI) and pAD, and better prediction of clinical symptoms is achieved with these comprehensive biomarkers. Further longitudinal changes of imaging and neuropsychological biomarkers, and inter-correlations with baseline parameters are examined for a better illustration of disease progression association. Additionally, an analysis of the post-traumatic stress disorder biomarkers is performed with high classification accuracy. With illustrative and rigorous data analyses and confirmative results, this book provides readers with a full spectrum of biomarker research for early dementia diagnosis and treatment, and helps convey the technical development and data evaluation perspectives in advanced medical imaging and various disease application fields.
Joint Imaging Applications in General Neurodegenerative Disease

Yongxia Zhou, PhD (Imaging Scientist, University of Southern California and Columbia University, USA)

In series: Neuroscience Research Progress

Publication Date: 04/05/2021

170 pp.

Softcover: 978-1-53619-435-7. $95.00
e-book: 978-1-53619-478-4. $95.00

Multiple advanced neuroimaging applications in various neurodegenerative diseases including Parkinson’s disease (PD), frontotemporal dementia (FTD), vascular dementia (VaD) and autism spectrum disorder (ASD) are covered in this book. Relatively novel techniques such as integrated PET/MRI and independent component analysis (ICA)-based dual regression (DR) methods were developed to capture multi-level molecular/functional and structural/microstructural as well as high-order inter-network coordination abnormalities. For instance, both PET dopamine transporter and striatal binding ratio reductions in the caudate and putamen were found in PD, consistent with the diffusion tensor imaging (DTI) fractional anisotropy (FA) reduction and fMRI voxel-mirrored homotopic correlation (VMHC) in the substantia nigra (swallow tail sign signature of PD). Furthermore, dopamine storage and pathway labeled with the vesicular monoamine transporter tracer identified decreased densities in the bilateral mesial temporal cortex, caudate, orbitofrontal cortex, left frontal and occipital cortices, consistent with the morphological atrophy, functional connectivity and conductivity deficits in PD. Similarly in FTD patients, the advanced MRI methods such as ICA-DR, VMHC, voxel-based morphometry (VBM) as well as PET tracer for amyloid accumulation and FDG glucose uptake identified typical brain atrophy, structural dis-connectivity, glucose hypometabolism, higher neuropathological burden, lower interhemispheric correlation as well as disrupted intra- and inter-network modulation in the orbitofrontal and anterior temporal cortices together with insular and frontoparietal networks, with the cerebellum and dorsolateral attentional network as typical compensations.

Functional and structural abnormalities had further been elucidated in the VaD dependent participants and autistic children. For instance, both lower FA and VMHC, brain atrophy and functional connectivity deficits, demyelination, axonal degeneration and white matter integrity damage in several white matter tracts were present in the dependent compared to independent participants in VaD data cohort. Increased neuronal activity with higher global fractional amplitude of low frequency fluctuation (fALFF) in the conventional and slow-wave sub-band was confirmed with less efficiency of systematic integration in VaD dependent group. Moreover, in ASD compared to controls, regional gray matter volume and cortical thickness in all four brain lobes increased, whereas white matter volume were decreased in addition to the lower temporal, visual and superior frontal but higher inferior and dorsolateral prefrontal cortical functional connectivities exhibited in ASD. The differences in each type of disease could also be revealed with the same imaging method based on either unique region or distinct brain circuit inter-connection, using VMHC, ICA-DR, DTI, VBM, fALFF and graph-theory based small-worldness analysis.

In this book, we have developed and generalized conventional and advanced imaging methodologies to several common neurodegenerative diseases. For instance, we have identified the unique imaging signature for each disease type and the underlying neuropathological mechanism connections with conductivity, structural and microstructural connectivity, intra- and inter-network correlation, systematic integration and efficiency analyses. Our objective, comprehensive and confirmative results indicated great potential in utilizing these quantifications for accurate disease classification and staging. With solid imaging evidence, thorough analysis and generalized applications, this book should capture the interests of readers in the broad fields of brain science, disease diagnosis and effective treatment.

Living with Aphasia

Joseph A. Barrow

In series: Speech and Language Disorders

Publication Date: 07/27/2021

184 pp.

Softcover: 978-1-53619-899-7. $95.00
e-book: 978-1-53619-927-7. $95.00

Aphasia is a debilitating disorder, resulting from brain damage, that causes a person to lose the ability to understand or express speech. While aphasia is sometimes permanent, some people can completely recover their language ability spontaneously or with treatment. This monograph consists of four chapters that provide details about the disorder and describe various treatment options. Chapter One reports non-invasive brain stimulation’s contribution to the study of phonological, syntactic and semantic language processing, as well as the recent interest in connections between language and motor systems. Chapter Two describes linguistically focused intensive group therapy and discusses the specific needs of adolescents and young adults with acquired aphasia. Chapter Three presents a case report of a patient with post-traumatic aphasia. Chapter Four provides details about subcortical aphasia, which is a language disorder caused by injuries in subcortical areas, such as the basal ganglia, white matter tracts, and thalamus, but not by injuries in cortical language areas, such as Wernicke’s and Broca’s areas.
**Neuromanagement: Neuroscience for Organizations**  
*Michele Balconi, PhD (Professor of Psychophysiology and Cognitive Neuroscience, International Research Center for Cognitive Applied Neuroscience (IrcCAN), Catholic University of the Sacred Heart, Milan, Italy; Research Unit in Affective and Social Neuroscience, Department of Psychology, Catholic University of the Sacred Heart, Milan, Italy)*

In series: * Neuroscience Research Progress  
Publication Date: 06/21/2021  
172 pp.  
Softcover: 978-1-53619-562-0. $95.00  
e-book: 978-1-53619-650-4. $95.00

This book focuses on applying neuroscience to organizational and managerial contexts, observing its possible applications, present and future potentials, and highlighting the possible criticalities of using neuroscientific paradigms and techniques applied to the management field. Specifically, the first part of the volume aims to offer an overview of how the adoption of an approach and a “neuroscientific mentality” allows to analyze and promote a change, with a view to the promotion of some fundamental components in the organizational context, such as leadership, confident behavior, business morality and ethics, and stress management. In particular, each of these components is observed through a neuroscientific perspective to offer elements for the promotion of a climate of well-being in the workplace. These aspects are also taken up in the second part of the volume, which focuses mainly on the application of neuroscience to the organizational context, providing evidence on how the use of specific neuroscientific techniques and paradigms, such as those of neuroassessment and neuroenhancement, allows to evaluate and strengthen the executive functions of individuals, to better manage the stress levels and the emotional load of individuals by improving their work performance. In addition to highlighting the impact and effectiveness of some neuroscientific paradigms, the second part of this book highlights the impact of Industry 4.0 on automation and technological developments, such as distance learning in the workplace, from a neuroscientific point of view. Therefore, this book aims to provide a broad overview of how neuroscience within the organizational context allows to fully explore individuals’ behavior by “modifying” it to promote well-being, functional management of stress, and promote a generative climate and encourage trust.

**Perspectives on Consciousness**  
*Paul Dennison, PhD (Consultant Psychotherapist and Independent Neuroscience Researcher, London, UK)*

In series: *Neuroscience Research Progress*  
Publication Date: 03/17/2021  
410 pp.  
Hardcover: 978-1-53619-323-7. $230.00  

Perspectives on Consciousness bridges ancient views on consciousness with modern neuroscience, quantum physics and higher-dimensional mathematics, as well as real-world application to raising awareness of consciousness in teaching.

Following a description of neurobiological approaches towards understanding the subjective nature of conscious experience in Chapter 1, including the enigma of qualia, the challenging dilemmas of understanding damaged consciousness following brain injury are reviewed in Chapter 2. The nature of qualia is taken up again in Chapter 3, which introduces a Qbit theory of consciousness based on inspirations and insights from quantum mechanics, biology, information theory and thermodynamics.

Chapters 4, 5 and 6 bridge ancient and modern views on consciousness, ranging across ancient yet impressively sophisticated Buddhist understandings of perception, feeling and cognition (Chapter 4), the also ancient Jewish mystical tradition of the kabbalistic Zohar (Chapter 6), and insights into brain activity drawn from deep states of meditation (Chapter 5). Chapter 5 also includes a discussion of hierarchies of consciousness including likely interactions at the global-societal level with implications to understanding climate change and the Covid-19 pandemic.

Chapter 7 takes readers to the outer reaches of discussions on consciousness to introduce ideas of higher-dimensional structures, and the problem of understanding consciousness within mainstream physics, before the final Chapter 8 sets a refreshing and timely change of pace to consider the need to help children, and their teachers, develop a broader awareness of consciousness as part of life in the global “family.”

The book will be of interest to a general scientific audience, as well as those with specialized interests in neuroscience and consciousness studies, education and philosophy, as well as Buddhist and Kabbalistic spiritual traditions.
Typical Imaging in Atypical Parkinson’s, Schizophrenia, Epilepsy and Asymptomatic Alzheimer's Disease
Yongxia Zhou, PhD (Scientist, Departments of Biomedical Engineering and Radiology, University of Southern California, CA, USA)

In series: Neuroanatomy Research at the Leading Edge
Publication Date: 08/10/2021
152 pp.
Softcover: 978-1-53619-939-0. $95.00
e-book: 978-1-68507-016-8. $95.00

The aim of this new book is to provide readers some new insights into applying various imaging techniques to diagnose and distinguish subtypes and rare/comorbid cases of several brain disorders more accurately. Specific and comprehensive imaging features utilized that could pinpoint the exact abnormalities of these atypical and/or rare diseases are the highlights of this book, which will provide guidance for better disease mechanism interpretation.

Central Nervous System

Neurocysticercosis: From Diagnosis to Treatment
Mark A. Chavez

In series: Neuroscience Research Progress
Publication Date: 07/01/2021
115 pp.
Softcover: 978-1-53619-791-4. $82.00
e-book: 978-1-53619-825-6. $82.00

Neurocysticercosis, a preventable parasitic infection of the central nervous system caused by tapeworm, is a serious, potentially fatal disease that can cause neurologic syndromes such as epileptic seizures. Chapter One of this monograph describes the existing treatment options for neurocysticercosis, along with possible therapeutic alternatives under different drug development phases. Chapter Two explains the difficulties associated with correctly diagnosing neurocysticercosis, resulting from its varied clinical presentation, and mentions current guidelines of diagnostic criteria for neurocysticercosis. Chapter Three describes the various merits and demerits of techniques for detecting the parasites associated with neurocysticercosis, which include radioimaging, genotyping of cysts, and antibody, antigen, and nucleic acid detection in body fluids.

Tumors of the Central Nervous System: Clinical Aspects and Symptom Management
James A. Reed

In series: Neuroscience Research Progress
Publication Date: 06/10/2021
99 pp.
Softcover: 978-1-53619-628-3. $82.00
e-book: 978-1-53619-648-1. $82.00

This book contains seven chapters, each of which provides information about tumors of the central nervous system. Chapter One reviews the clinical, pathological, molecular and prognostic features of Embryonal Tumor with Multilayered Rosettes (EMTR). Chapter Two reviews the clinicopathologic features and differential diagnoses of Dysembryoplastic neuroepithelial tumor (DNET), a rare low grade glioneuronal neoplasm which mostly affects the temporal lobe. Chapter Three reviews the clinical and pathologic features of Rosai-Dorfman disease (RDD), a rare, benign, idiopathic lymphohistiocytic proliferative disease. Chapter Four reviews the clinical and pathologic features of the rare central nervous system neoplasm called angiocentric gliomas. Chapter Five reviews the histological and clinical features of chordoid gliomas, rare neoplasms of the central nervous system. Chapter Six provides a clinicopathologic review of dysplastic cerebellar gangliocytomas, also known as Lhermitte-Duclos disease. Finally, Chapter Seven reviews the clinicopathologic features of cerebellar liponeurocytoma, a rare cerebellar tumor which is marked by admixed neurocytic and lipoma-like components.
Sleep and Sleep Disorders

**Advances in Sleep Apnea: Detection, Diagnosis and Treatment**

*Francesco Lorusso, MD (Specialist, Otolaringology and Head and Neck Surgery, Otolaryngology Department, University Hospital Paolo Giaccone Palermo, Italy) and Salvatore Gallina (Associate Professor, Otolaryngology, University of Palermo, Director of Otolaryngology Department, University Hospital Paolo Giaccone Palermo, Italy)*

In series: *Sleep - Physiology, Functions, Dreaming and Disorders*

Publication Date: 06/25/2021

357 pp.

Hardcover: 978-1-53619-758-7. $230.00
e-book: 978-1-53619-797-6. $230.00

This book explores the diagnosis and treatment of Sleep Apnea Syndrome involving various medical figures for whom interactive and multidisciplinary work is essential. This is because sleep apnea is a very wide field that ranges from pediatric apneas, often of organic origin and usually connected to adenotonsillar hypertrophy or craniofacial anomalies, to adult apneas that can have an obstructive origin, especially in the case of overweight and particular conformations of the upper respiratory tract, and/or a central origin due to neurological pathologies. Particular attention has been paid to diagnosis and new technologies that go alongside the classic diagnostic tools, especially in the screening of pathology. The approaches described concern both medical and surgical treatments. Particular attention was paid to the treatment of associated comorbidities and to the physical rehabilitation of apnoic patients. Given the complexity of the pathology and the pictures associated with it, the purpose of this book is to make known the new frontiers both in the diagnostic and therapeutic field that can be used to develop a therapeutic plan tailored to the patient, since not all apnea patients are the same.

### NUTRITION AND DIET

**Gluten-Free Diets and Health**

*Hisham Castillo*

In series: *Nutrition and Diet Research Progress*

Publication Date: 02/26/2021

178 pp.

Softcover: 978-1-53619-327-5. $95.00
e-book: 978-1-53619-345-9. $95.00

Over the past several decades, gluten-free diets have attracted wide public interest, in large part due to their efficacy in treating celiac disease. However, such diets present nutritional risks, as gluten-free products can be low in protein, dietary fiber, and other nutrients. Chapter One of this book discusses techniques for improving the nutritional value of gluten-free foods as well as their textural and sensorial features. The second chapter discusses gluten-free cheese bread enriched with essential fatty acids, and how such enrichment improves the overall quality of the food. Similarly, the third chapter explores the technological and sensory properties of gluten-free muffins made with chickpea flour and describes the effects of various muffin formulations. The final chapter describes gluten-free Mexican sweet bread and analyzes the physiochemical characteristics of taro flour and gluten-free muffins made with taro flour.

**Human Milk: Nutritional Content and Role in Health and Disease**

*John I. Cole*

In series: *Nutrition and Diet Research Progress*

Publication Date: 06/28/2021

142 pp.

Softcover: 978-1-53619-713-6. $82.00
e-book: 978-1-53619-824-9. $82.00

Mother’s milk provides a wide variety of health benefits for infants, which is why breast feeding is highly recommended all over the world. This monograph provides details about the nutritional and bioactive properties of human milk, explaining the significance of this natural source of food. Chapter One describes how lactic acid bacteria present in human
milk plays a critical role in establishing an immunocompetent microbiome in newborns, inducing multifarious health-promoting activities required to successfully initiate the life process. Chapter Two describes how the fatty acid profile of breastmilk varies according to the needs of the infant, particularly depending on the gestational age of the newborn, but also as a result of the mother’s diet. Chapter Three summarizes the current literature on the composition of human milk and its life-course functional effects on health outcomes.

**Micronutrients and their Role in Health and Disease**

*Horace A. Howard*

In series: *Nutrition and Diet Research Progress*

Publication Date: 07/27/2021

107 pp.

Softcover: 978-1-53619-843-0. $82.00

e-book: 978-1-53619-872-0. $82.00

Micronutrients, which include vitamins and minerals, are an essential component of any healthy diet. Though the body only requires small amounts of micronutrients, they nonetheless play a critical role in health and disease. The first chapter of this book includes a review of the relationships between micronutrient levels and clinical outcomes in patients with chronic kidney disease and the effects of different types of renal replacement therapy on micronutrient levels. The second chapter focuses on the use of micronutrient phytochemicals for optimizing health in normal subjects to assure they have the best possible immune response to an adverse disease event. Finally, the third chapter summarizes the data on the possible benefits and harms of vitamin supplements and essential minerals in pediatric ICU patients.

**Fruits, Vegetables and Nuts**

*Blueberries: Nutrition, Consumption and Health*

*Laura M. Williams*

In series: *Nutrition and Diet Research Progress*

Publication Date: 05/05/2021

236 pp.

Hardcover: 978-1-53619-568-2. $160.00

e-book: 978-1-53619-646-7. $160.00

This book comprises four chapters about the various properties of blueberries. Chapter One assesses the impact of various processing methods on the quantity and profile of anthocyanins, which are the most abundant flavonoids in blueberries. Chapter Two describes how dehydration impacts the bioactive compounds and nutritional value of blueberries. Chapter Three explains the health benefits of consuming foods rich in flavonoids, like blueberries, such as a reduction in heart attack incidence, blood pressure and arterial stiffness. Chapter Four discusses the effects of the different processing operations that blueberries are subjected to by comparing the properties of processed blueberries and fresh blueberries.

**OBSTETRICS AND GYNECOLOGY**

*Fertility Preservation in Gynecological Cancer: Current Management and Novel Insights*

*Simone Garzon (Department of Obstetrics and Gynaecology, “Filippo Del Ponte” Hospital, University of Insubria, Varese, Italy) and Antonio Simone Laganà (Department of Obstetrics and Gynaecology, “Filippo Del Ponte” Hospital, University of Insubria, Varese, Italy)*

In series: *Obstetrics and Gynecology Advances*

Publication Date: 02/10/2021

317 pp.

Hardcover: 978-1-53619-179-0. $230.00


This book was written for the complex scenario of fertility-sparing management in gynecological cancer. In reproductive age women, appropriate counseling is mandatory in
any cancer diagnosis, including discussing the long-term consequences of the different treatment options on fertility and the possibility of fertility preservation. However, women affected by gynecological cancer must consider that treatment options including hysterectomy and bilateral oophorectomy in most cases. Therefore, in gynecological cancer, the standard treatment often consists of an inevitable loss of fertility. The direct consequence is that fertility preservation management does not always result in the optimal treatment of the disease, which increases the risk of worsening oncologic outcomes. This book discusses the role of genetic assessment and counseling, the effect of anticancer treatments for gynecological cancer on fertility, classic fertility preservation techniques adapted to gynecological cancer, detailed and specific fertility preservation management for cervical, ovarian, and endometrial cancer, and the role of a multidisciplinary approach in these patients.

Hyaluronic Acid - Role in Pregnancy and Novel Applications in the Gestational Period
Vittorio Unfer (A.G.UN.CO Obstetrics and Gynecology Center, Rome, Italy)
In series: Obstetrics and Gynecology Advances
Publication Date: 07/15/2021
179 pp.
Softcover: 978-1-53619-762-3, $95.00
e-book: 978-1-53619-873-7, $95.00
This book offers a valuable clinical resource for health professionals and researchers. It gives an overview about the pivotal role played by High Molecular Hyaluronic Acid (HMW-HA) during pregnancy and its applications in the gestational period. Hyaluronic acid is a critical component of the extracellular matrix (ECM) and one of the most interesting, versatile and useful natural molecules in almost all areas of biology. As widely reported, HA has a pivotal role in several phases of pregnancy, from fertilization to labour and it displays several regulatory activities and functional properties based on its different molecular weight. While low molecular weight hyaluronic acid (LMW-HA) is widely used in gynaecology for menopause-related symptoms or in association with physical treatments (e.g., radiation therapy) to counteract the onset of adverse events, HMW-HA has been poorly evaluated as clinical treatment. Its physiological presence in the extracellular matrix of all the main organs and tissues involved in pregnancy (uterus, cervix, placenta, decidua, chorion, amnios, ovarium etc.) suggests the importance of this molecule for a successful gestation. Several papers, in particular, shed light on its importance for blastocyst adhesion and implantation, for an efficient immune tolerance and for the correct development of haemo-lymphatic system. It has been demonstrated that HMW-HA has regulatory activity on the PGRMC1 expression, a specific progesterone receptor expressed in maternal and foetal-maternal interface tissues, involved in uterine quiescence. On these premises, the administration of HMW-HA may represent an interesting treatment opportunity for the prevention of recurrent miscarriage and pre-term birth (PTB) in patients with risk factors. The high safety profile of HMW-HA further supports its administration in pregnancy. All these interesting topics will be discussed and deepened in this book, giving the opportunity to explore in detail every aspect of this effective and attractive molecule, thus helping physicians to assess the state of connective tissues in pregnancy and to evaluate the risk for the onset of gestational complications.

Intracytoplasmic Sperm Injection (ICSI): Clinical Considerations, Outcomes and Potential Health Effects
Murid Javed, PhD (Laboratory Director at OriginElle Fertility Clinic and Women’s Health Centre, Ottawa and Montreal, Canada)
In series: Human Reproductive System - Anatomy, Roles and Disorders
Publication Date: 06/25/2021
245 pp.
Hardcover: 978-1-53619-762-4, $160.00
e-book: 978-1-53619-793-8, $160.00
This book provides comprehensive information on Intracytoplasmic Sperm Injection (ICSI), its clinical considerations, outcomes and potential health effects. Male and female infertility is increasing all over the world. The basic techniques of assisted reproduction like ovulation control and intrauterine insemination are ineffective if the sperm quality or number is inadequate. The advanced fertilization techniques are in-vitro fertilization (IVF) and ICSI. In 15% cases of infertility, IVF results in total failed fertilization; therefore, ICSI must be used. Some clinics exclusively use ICSI for all infertility patients due to its reliability of fertilization outcome or to avoid total fertilization failure. ICSI was first used in humans in 1992. Since then, tremendous advances have been made in assisted reproductive technology. ICSI has enabled even those men who have rare sperm in their testes to father a biological child. If no sperm are observed in the ejaculate, in almost all cases, they can be recovered from the testicles. Such retrieved sperm can only be used by ICSI. Therefore, its understanding is essential not only for medical staff but also for patients suffering from infertility.
This book is highly recommended for patients suffering from infertility or currently undergoing infertility treatment. It explains the factors affecting ICSI success rate. In ICSI, the embryologist picks a sperm for injection to fertilize oocytes whereas in intrauterine insemination and IVF, one sperm penetrates naturally. This manual selection of sperm has raised concerns especially in those patients suffering from severe male factor infertility. The nature of sperm defects varies and could be congenital, acquired or genetic. Children born through ICSI are, therefore, considered at higher risk of carrying the defect. Many investigations have been carried out to compare incidence of the defects between children conceived naturally and conceived through ICSI. Additional technologies have been developed to ensure the birth of a normal child. These include pre-implantation genetic testing and non-invasive prenatal testing. This book addresses these concerns and explains the health effects on children born through ICSI. This book is very useful for medical students, andrologists, embryologists, nurses or anyone else interested in learning basic or advanced knowledge of assisted reproductive technology, especially ICSI. The authors of the chapters of this book are highly experienced and from different parts of the world. Many of them are directing very busy ART laboratories at leading infertility clinics in the United States of America, Canada and the Middle East.

Uterine Fibroids from Diagnosis to Treatment
Marco Mitidieri, MD, Saverio Danese, MD and Elisa Picardo, MD
(Gynecology and Obstetrics, Sant’Anna Hospital, Turin, Italy)

In series: Obstetrics and Gynecology Advances
Publication Date: 02/17/2021
156 pp.
Softcover: 978-1-53619-184-4. $95.00
e-book: 978-1-53619-284-1. $95.00

Uterine fibroids (UFs) are benign masses that develop from the smooth muscle cells and connective tissue of the wall of the uterus under the influence of genetic and/or hormonal stimuli. These benign tumors are postulated to arise from a single, genetically altered, mesenchymal cell under the influence of gonadal hormones namely progesterone and 17β-estradiol. The annual societal cost for fibroids is estimated up to 34 billion dollars, calculated through combined expenditures for medical management of symptomatic fibroids, lost work attributable to diagnosis of fibroids, and obstetrical complications of fibroids in Italy, for example, they afflict 3 million women. Estimates say that 20 to 80% of women experience them throughout life, and are the most common form of benign cancer in childbearing age. Various surgical and medical options are currently available to manage symptomatic uterine fibroids. The choice of the appropriate therapeutic approach for UFs depends on several factors, including women’s age, parity, childbearing aspirations and wish to preserve fertility, extent and severity of symptoms, size, number and location of myomas, risk of malignancy and proximity to menopause. This book reviews the diagnoses, management and treatment of uterine fibroids.

OCCUPATIONAL THERAPY

An Occupational Therapist’s Role in Health Literacy and Integrated Care
Brittany Ferri (Founder & Occupational Therapist, Simplicity of Health, Rochester, NY, USA)

In series: New Developments in Medical Research
Publication Date: 05/14/2021
198 pp.
Hardcover: 978-1-53619-549-1. $160.00
e-book: 978-1-53619-679-5. $160.00

An Occupational Therapist’s Role in Health Literacy and Integrated Care gives students a look into one of the most important roles of a therapist: health educator. This book describes the basics of health literacy, its intersection with preventative care, and how it can be incorporated into occupational therapy intervention. With a detailed look at theory bases and frames of reference, An Occupational Therapist’s Role in Health Literacy and Integrated Care aims to create more well-informed and effective rehabilitation providers who promote health for all populations and diagnoses. This book also offers a look at many integrated care approaches that can be used on a macro and micro level to improve the care that patients receive. This is a comprehensive resource for anyone looking to delve deeper into the world of preventive and integrated medicine.
A Biochemical View of Head and Neck Cancers  
**Dorota Bartusik-Aebisher (Professor, Medical College of The University of Rzeszow, Poland) and David Aebisher (Professor, Medical College of The University of Rzeszow, Poland)**

In series: Cancer Etiology, Diagnosis and Treatments  
Publication Date: 03/04/2021  
144 pp.  
Softcover: 978-1-53619-370-1. $82.00  
e-book: 978-1-53619-376-3. $82.00

This book addresses major problem in the management of patients with cancer of the head and neck. The authors have written six chapters of particular importance for head and neck cancer diagnosis, treatment, and rehabilitation. Chapter 1 describes treatment of patients with squamous cell carcinoma of the head. Chapter 2 presents treatment of patients with squamous cell carcinoma of the neck. Biochemical studies of head and neck cancer treatments are presented in Chaper 3. In chapter 4 biochemical studies of head and neck cancer biomarkers are presented. Photodynamic therapy (PDT) exploits light interactions and photosensitizers to induce cytotoxic reactive oxygen species. Photodynamic diagnosis (PDD) uses the phenomenon of photosensitizer emitting fluorescence to distinguish some tumors from normal tissue. PDT offers a therapeutic solution that has been found to be cost-effective compared to palliative major surgery or chemotherapy. However, despite the significant improvement noted in preclinical and clinical trials, PDT is still not considered the standard treatment option for head and neck cancer. Multiple photosensitizers have been studied and tumors have been treated in a variety of head and neck sites over the last 30 years. Photodynamic therapy is a palliative treatment option for head and neck squamous cell carcinoma patients which induces local inflammation and alters tumor cell morphology.

A Comprehensive Textbook of Primary and Metastatic Tumors of the Skeletal System  
**Babak Otokehes, MD (Clinical Orthopedic Fellowship from Universitätsklinikum Bonn (UKB), Orthopedic Surgeon at Department of Orthopedic Surgery, Iran University of Medical Sciences in Rasoul-E-Akrum hospital, Tehran, Iran), Mehrdad Bahrabadi, MD (Assistant Professor of Orthopedic Surgery, Musculoskeletal Tumor Fellowship, Iran University of Medical Sciences, Tehran, Iran), Raphaelle Vialle, MD (Professeur des Universités - Praticien Hospitalier, Chef du Service de Chirurgie Orthopédique et Réparatrice de l'Enfant, Département Hospitalo-Universitaire MAMUTH “Maladies Musculo-Squelettiques et Innovations Thérapeutiques”, Hôpital Armand Trousseau, Université Pierre et Marie Curie, Paris, France), Shayan Hosseinazadeh, MD (Orthopedic Surgery Research Fellow, Boston’s Children Hospital, Harvard Medical School, Boston, USA), Farnoosh Sedaghati, MD (Clinical and Anatomical Pathologist, Iran University of Medical Sciences, Tehran, Iran) and Shayan Amiri, MD (Clinical Orthopedic Surgery Resident, Bone and Joint Reconstruction Research Center, Iran University of Medical Sciences, Tehran, Iran)**

In series: Cancer Etiology, Diagnosis and Treatments  
Publication Date: 02/10/2021  
243 pp.  
Hardcover: 978-1-53619-104-2. $195.00  
e-book: 978-1-53619-159-2. $195.00

This book is a comprehensive textbook of primary and metastatic skeletal system tumors which provide clinical, pathological and imaging data of the skeletal system tumors appropriate for all clinicians who are practicing in oncology wards, especially orthopaedic surgeons. In this book, we discuss the diagnosis and treatment of skeletal system tumors, their clinical signs, and symptoms and we also discuss their pathological aspects of the tumors. We conclude with important images such as plain radiographs, CT scans, MRIs, and bone scan. The most helpful data of each tumor is brought together in order to help patients and clinicians of this widespread part of medicine.
Recognizing rare diseases' impracticability of having extensive clinical trials necessary for regulatory approval, the US Orphan Drug Act appropriately facilitates the commercialization of “orphan drugs”. However, even common cancers also have rather specific but uncommon clinical situations for which extensive clinical trials are hardly practicable. Moreover, although such very costly and extensive trials often depend on industry support, uncommon situations are unattractive. Eventually, many specific treatments for designated clinical oncology situations often lack regulatory approvals merely because of suboptimal trial data. Now, this EBM (evidence-based medicine) book by expert authors with first-hand clinical experience is about off-label but acceptable treatment options. The attempt is to patch up the low response rates and considerable adverse events of novel immunotherapy. Currently, without any such off-label treatments, some cancer patients may well be left out in the cold. Although off-label treatments lack regulatory approval, they are backed by EBM and have good safety profiles. It’s inappropriate to announce “nothing else can be done” merely because all approved options have already been exhausted. In expert hands, despite the “on compassionate grounds” proviso, the safety profiles of such off-label prescriptions may even compare favorably with orthodox chemotherapy given at top doses.

Gastric cancer is the fourth most common cancer in the world. Most gastric cancers are diagnosed in advanced stages, and the prognosis remains poor. The 5-year survival rate is 40-60% in eastern countries and around 25% in the west. Among advanced gastric cancer cases, peritoneal implantation is one of the most common forms of metastasis and around 14% of cases present peritoneal metastases at initial diagnosis, presenting a survival of 3-6 months. Until the early 1990s it was considered a terminal disease. But today these patients have some opportunities to be treated with curative intent or to prolong their life. Although the prognosis remains poor, there are some treatment options including cytoreductive surgery, neoadjuvant therapy, and some forms of intraperitoneal chemotherapy with or without hyperthermia. These are aggressive treatments, so we must be careful when selecting patients. Imaging and preoperative staging are also crucial in selecting patients for appropriate treatment. The surgical technique is described and a detailed demonstration video is available in the e-book version. New forms of treatment such as PIPAC and new scientific advances and future perspectives are discussed. This book is an update on this topic and attempts to provide an overview for all medical personnel involved in the treatment of these patients.
Horizons in Cancer Research. Volume 79
Hiroto S. Watanabe
In series: Horizons in Cancer Research
Publication Date: 03/04/2021
210 pp.
Hardcover: 978-1-53619-330-5. $250.00
e-book: 978-1-53619-359-6. $250.00
This compilation includes details about recent innovations in the field of cancer treatment as well as best practices for managing the disease in various forms. The first chapter deals with the potential anticancer properties of the plant Trigonella foenum-graecum, also known as fenugreek. Following this, the authors provide clinically relevant information on physical therapy for women with breast cancer as well as targeted therapy for metastatic triple-negative breast cancer. Then, the authors discuss the evolution of the field of systematic therapy for urothelial cancer, which ranges from chemotherapy to immune checkpoint inhibitor use. The final chapter highlights the chemo-preventive efficacy of phytochemicals in modulating the epigenetic mechanisms involved in the initiation and progression of cancer.

Horizons in Cancer Research. Volume 80
Hiroto S. Watanabe
In series: Horizons in Cancer Research
Publication Date: 06/11/2021
265 pp.
Hardcover: 978-1-53619-563-7. $250.00
e-book: 978-1-53619-737-2. $250.00
This edited volume presents six chapters detailing recent progress in the field of cancer research. Chapter One discusses the current information available regarding chemotherapy-induced peripheral neuropathy, including definition, prevalence, pathophysiology at nerve fibers, risk factors, physiology of specific antineoplastic agents on the peripheral nervous system, signs and symptoms, diagnostic criteria, and treatment methods. Chapter Two aims to substantiate the value of tumor-associated circulating and tissue miRNAs for assessing both the aggressiveness of the malignant process course and the sensitivity to neoadjuvant polychemotherapy (NPCT) in breast cancer patients of various molecular subtypes. Chapter Three summarizes the current role of nuclear factor kappa B (NF-κB) in cell aging, its dual functions in the balance of proliferation and apoptosis pathways and the current knowledge of not only the physiological but also the pathophysiological missions of NF-κB and its potential role as a target of therapeutic intervention against breast cancer. Chapter Four deals with 5-aminolevulinic acid radiodynamic therapy for treatment of high-grade gliomas. Chapter Five presents a literature review to identify the possible role of sex hormone receptors in gender variation and sexual dimorphism in the genesis and progression of urothelial bladder cancer (UBC). Lastly, Chapter Six discusses the risk factors, diagnostic modalities, and outcomes of cholangiocarcinoma (CCA), the second most common primary hepatobiliary malignancy.

Horizons in Cancer Research. Volume 81
Hiroto S. Watanabe
In series: Horizons in Cancer Research
Publication Date: 07/23/2021
218 pp.
Hardcover: 978-1-53619-917-8. $250.00
e-book: 978-1-53619-930-7. $250.00
This edited volume presents seven chapters detailing recent progress in the field of cancer research. Chapter One explores the application of robotic surgery to radical cystectomy, highlighting patient selection, surgical approach, perioperative and oncologic outcomes as well as some areas of controversy in the literature. Chapter Two describes the principles of cytoreductive surgery and hyperthermic intraperitoneal chemotherapy procedures with its potential risks for patients and staff. Chapter Three discusses findings related to ISG15 and protein ISGylation, and their association with interferon signaling in cancer. Chapter Four describes the potential for MCF-7 cells to curb or counteract breast cancer. Chapter Five discusses the potential of emerging technologies in breast conserving treatment. Chapter Six reviews the current literature surrounding the basis of employing the immune system for the treatment of the various non-melanoma skin cancers (NMSC), discusses approved immunotherapies for each type of NMSC as well as indications for use, and synthesizes ongoing investigational studies of immunomodulatory agents for these diseases. Finally, Chapter Seven discusses the use of gene therapy in management of squamous cell carcinoma.
New Research on Hematological Malignancies

David K. Gioia

In series: Cancer Etiology, Diagnosis and Treatments
Publication Date: 08/10/2021
145 pp.
Softcover: 978-1-53619-955-0. $82.00
e-book: 978-1-53619-989-5. $82.00

Hematological malignancies, defined as cancers that affect the blood, bone marrow, and lymph nodes, represent a serious health care challenge for oncologists. Chapter One focuses on cytogenetic and molecular markers and summarizes their importance in identification, treatment and prognosis in patients with myeloproliferative neoplasms. Chapter Two details the efficacy of treatment of myeloid hematologic malignancies with isocitrate dehydrogenase mutations by inhibitors of this enzyme. Chapter Three describes the use of Selinexor and other drugs for the treatment of hematologic malignancies. Chapter Four explains the utility of poly(ADP-ribose) polymerase inhibitors in the treatment of myelodysplastic syndrome and acute myeloid leukemia.

Oncology Pharmacy Practice: The Clinical Pharmacist’s Perspective

Dr. Songul Tezcan (Clinical Pharmacy Department of Pharmacy Faculty of Marmara University, Istanbul, Turkey), Dr. Sule Rabus (Clinical Pharmacy Department of Pharmacy Faculty of Marmara University, Istanbul, Turkey) and Dr. Mesut Sancar (Clinical Pharmacy Department of Pharmacy Faculty of Marmara University, Istanbul, Turkey)

In series: Pharmacology - Research, Safety Testing and Regulation
Publication Date: 04/21/2021
322 pp.
Hardcover: 978-1-53619-564-4. $230.00
e-book: 978-1-53619-580-4. $230.00

Incidence of cancer is increasing all over the world and personalized therapies have become the trend in cancer therapy. Multidisciplinary approaches provide successful results for personalized therapies. As a part of a multidisciplinary healthcare team, oncology pharmacists (OPs) contribute to the rational use of chemotherapy by providing individual pharmaceutical care for cancer patients. A multidisciplinary approach is crucial for the success of cancer therapy. Pharmacists acting as a counsellor for medication-related issues in the multidisciplinary team have a vital role in the oncology setting. OPs are the clinical pharmacists specialized in oncology and they are involved in planning and implementation of pharmaceutical care. Additionally, OPs play an important role in providing comprehensive medication management and related care for cancer patients. We hope that this book will contribute to pharmacists’ knowledge and practice in cancer management by provision of a clinical pharmacist’s perspective.

Oral Squamous Cell Carcinoma: From Diagnosis to Treatment

Matthew Rabin

In series: Cancer Etiology, Diagnosis and Treatments
Publication Date: 07/14/2021
251 pp.
Hardcover: 978-1-53619-405-9. $195.00

This monograph consists of five chapters that describe the diagnosis and treatment of oral squamous cell carcinoma (OSCC), which is the most common malignant epithelial neoplasm affecting the oral cavity. Chapter One deals with different potentially malignant disorders in the development of OSCC, diagnostic methods of OSCC, the pertinence of biomarkers in OSCC therapy, classification of biomarkers, existing biomarkers in different stages of OSCC and the challenges of developing new biomarkers. Chapter Two is focused on principles, systems, technologies, therapeutic approaches, safety and toxicity and patents comprising drug delivery systems for local oral squamous cell carcinoma treatment. Chapter Three aims to highlight a detailed critical review of previous literature on putative cancer stem cell pathways for oral carcinoma and draw interest in targeting the most common cancer stem cell markers as a therapeutic regimen for oral cancer preneoplastic tumors, metastasis, and treatment progression. Chapter Four aims to cover the recent developments in nanotechnology-based drug delivery systems, advanced nanomedicines and their diagnostics as well as therapeutic
applications in OSCC. Finally, Chapter 5 aims to elaborate on the importance of biomarkers as an early diagnostic tool in detecting oral squamous cell carcinoma.

Plant Flavonoids Against Metastasis: New Concepts For Cancer Treatment

Katrin Sak (Dip.Nut.Med., Head of the NGO Praeventio, Tartu, Estonia)

In series: Cancer Etiology, Diagnosis and Treatments
Publication Date: 01/27/2021
385 pp.
Hardcover: 978-1-53619-102-8. $270.00
e-book: 978-1-53619-105-9. $270.00

Cancer poses a major threat to human health and is one of the leading causes of death worldwide. Today, we know that metastasis, a multistep process whereby tumor cells spread from the site of origin to distant organs, is responsible for most cancer mortality. In fact, more than 90% of cancer-related deaths are attributed to tumor metastasis. Unfortunately, there are no therapies currently available to specifically target metastasis of any human cancer types, and patients with distant metastases ultimately die from their disease. Current conventional treatment modalities are focused on the removal of tumors by surgical resection and/or the killing of malignant cells using cytotoxic chemotherapeutic drugs or ionizing radiation, with no substantial inhibitory effects on the migratory and invasive abilities of cancer cells. Moreover, emerging evidence has shown that these standard treatment modes can unexpectedly increase the motility and invasiveness of surviving tumor cells, inducing or accelerating metastases formation and aggravating malignant progression. This paradoxical phenomenon can help us to understand why, despite the technological advancements in surgical procedures and drug delivery methods, the overall survival rate of numerous cancer types has barely changed over the past several decades, remaining unacceptably poor. Due to the insufficiency of existing therapies in improving the prognosis of cancer patients, new effective treatment options are urgently needed. To this end, the focus must be moved from a simply cytotoxic approach to a metastasis-preventing strategy, substituting the question of why cancer forms and how to kill it for the question of why tumors spread and how to prevent metastasis.

In this book, a conceptually new approach to cancer management is presented, by focusing not on the killing of transformed neoplastic cells, but blocking the spread of tumor cells to distant organs, thereby restricting malignant progression and targeting the main cause of cancer-related mortality. Plant-derived flavonoids might be ideal candidates for novel antimetastatic agents, as they are non-toxic and possess the capacity to inhibit multiple steps of metastatic cascade. These polyphenolic phytochemicals act through regulating a number of metastasis-associated signaling cascades in different tumor cells, and also modulate diverse components of tumor microenvironments and attenuate the formation of tumor-specific angiogenesis. Moreover, the combination of certain flavonoids with surgical resection, chemotherapy or radiotherapy may result in the abolishment of the metastasis-promoting effects of these conventional therapeutic modalities, providing novel treatment options for combating cancer in the future. It is expected that the development of flavonoids for antimetastatic drugs and their inclusion in further cancer treatment strategies can substantially improve the prognosis of patients with various types of malignancies in a time when cancer incidence is predicted to continuously increase throughout the world. This book should be read by anyone who is interested in innovative advances in cancer care. Due to its systemic approach to cellular and molecular processes of metastatic cascade, this book might serve as a useful contemporary textbook for medical colleges and universities for studies of cancer development, progression and dissemination.

OPHTHALMOLOGY

Strabismus: Prevalence, Recognition and Management

Zia Chaudhuri, MS, DNB, MNAMS, FRCS (Glasg), FICO, PhD, FAMS (Strabismus, Neuro-Ophthalmology and Pediatric Ophthalmology Services, Lady Hardinge Medical College, University of Delhi, Dr RML Hospital and ABVIMS, New Delhi, India)

In series: Eye and Vision Research Developments
Publication Date: 05/14/2021
266 pp.
Hardcover: 978-1-53619-372-5. $195.00
e-book: 978-1-53619-551-4. $195.00

This monograph entitled “Strabismus: Prevalence, Recognition and Management” comprises a unique compilation of 12 chapters representing original research of the
authors and supported by a comprehensive review on the topic. All chapters are well-illustrated, well-tabulated, linguistically lucid and easy to understand. The uniqueness of this monograph lies in the fact that it elucidates some of the most cited strabismus research in the last two decades which has led to fundamental changes in the understanding of ocular misalignment and its management, all within one cover. In doing so, it provides a synopsis of research articles covered in at least 50 journals, thus aiding both the novice and the experienced strabismologist in accessing easily available literature on the subject, by the same authors of those research articles. The contributors are from many countries — Argentina, Brazil, Germany, India, the United Kingdom and the United States of America — thus assimilating different practice patterns and research styles in one book.

Conforming to the theme of strabismus prevalence, recognition and management, the monograph overviews certain “newer” forms of “neuro-anatomical” strabismus associated with abnormal orbital anatomy and connective tissue morphology like age-related strabismus (sagging eye syndrome) and myopic strabismus, provides the constellation of symptoms and signs of ocular misalignment associated with brain injury, updates the readers on the genetics of strabismus, describes newer imaging modalities that have been used in strabismus diagnostics like optical coherence tomography angiography (OCTA) and high resolution surface coil orbital magnetic resonance imaging (MRI), elucidates innovative experimental studies delineating the normal and abnormal physiology of ocular movements, emphasizes certain unique strabismus surgical modalities that have gained popular attention in this decade, namely lateral rectus split with nasal transposition as well as rectus extraocular muscle plication and also provides a vast and extensive overview of the pharmacological management of strabismus with botulinum toxin type A (BTXA). It is anticipated that this unique compendium finds a place in the academic arsenal of all strabismologists as a ready reference book.

Nasal and Paranasal Sinus Surgery: State of the Art and Future Perspectives

Francesco Gazia, MD (Otorhinolaryngology unit, Policlinico Gaetano Martino, University of Messina, Italy), Francesco Galletti, MD, PhD (Professor, Otorhinolaryngology unit, Policlinico Gaetano Martino, University of Messina, Italy), Bruno Galletti, MD, PhD (Associate Professor, Otorhinolaryngology unit, Policlinico Gaetano Martino, University of Messina, Italy) and Francesco Freni, MD, PhD (University Researcher, Otorhinolaryngology unit, Policlinico Gaetano Martino, University of Messina, Italy)

In series: Otolaryngology Research Advances
Publication Date: 07/23/2021
318 pp.
e-book: 978-1-53619-848-5. $230.00
Hardcover: 978-1-53619-744-0. $230.00

In this book we have tried to collect the state of the art of nasal and paranasal sinus surgery, deepening the most modern techniques and addressing every single pathology with great dedication. In the first chapter, thanks to the help of Professor Enrique Perello, leader of ENT surgery in Spain and with an international reputation, we tried to trace the history of nasal surgery. We found photos of ancient treatises, analyzing the origins of some techniques, still used but perfected with the help of technology.

In the following chapters, we have dealt with the basic surgery of the nose and paranasal sinuses, with evident help on the septal endoscopic part by Professor Andrea Gallo, director of the Polo Pontino of the La Sapienza University in Rome. The chapters on oroantral communications and odontogenic sinusitis were written by Professor Cosme Gay-Escoda, leader in the maxillofacial and oral cavity surgery sector throughout Spain. The chapter on inverted papillomas was written by the professor of the University of Genoa Frank Rikki Canevari, a surgeon of national and international fame, expert on the nasal cavities.

We wrote a chapter on dacryocistоторinostomy, with the help of Professor Maurizio Catalani, of the University of Turin and in collaboration with a team of ophthalmologists led by professors Meduri, Aragona and doctor Migliardi.

We thank the whole ENT team of the University of Palermo, led by Professor Gallina, for the chapter on the complications of endonasal surgery. We received special help from the team of the Insubria University of Varese, led by professors Bignami and Castelnuovo, world leaders in this type of surgery. They wrote the chapters on rhino-liquor fistulas and on the treatment of nasal tumors, giving us the precious images of their most interesting clinical cases.

Thanks to external contributions, this book can be considered a handbook for nose surgery, updated to the most modern surgical techniques in use and with an analysis of the possible future developments of this type of surgery.
**Auditory and Speech**

**Tinnitus Assessment and Intervention: Clinical Studies and Case Reports**

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In series: Disability Studies

Publication Date: 08/11/2021
233 pp.
Hardcover: 978-1-53619-920-8. $160.00
E-book: 978-1-53619-991-8. $160.00

Tinnitus (“ringing in the ears”) is a prevalent symptom among adult patients with ear disorders. Often co-existing with other otological symptoms such as hearing impairment and hyperacusis, it requires specialized assessments and interventions to minimize its negative consequences, as well as to improve the quality of life of the affected individuals. Even though notable achievements have been seen in tinnitus studies and clinical services to manage patients with tinnitus are now more commonly available, ongoing research efforts are still warranted to enhance the understanding on the pathophysiology of tinnitus, as well as in search of the optimum treatments and interventions of this phantom auditory perception. In this book we have gathered the latest clinical studies and case reports on tinnitus, which could be of interest to academicians, researchers, clinicians and other interested readers.

**PEDIATRICS**

**Caring for the Newborn: A Comprehensive Guide for the Clinician. Second Edition**

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In series: Pediatrics, Child and Adolescent Health

Publication Date: 06/25/2021
565 pp.
This book summarizes the state of cognoscibility regarding normal newborn care that has been accumulated over the past centuries, especially the 20th and now 21st century. The preface/introduction details historical concepts that have followed newborns over the millennia of Homo sapiens sapiens’ existence, such as infanticide, breast feeding, swaddling, neonatal resuscitation, and principles of caring for newborns. The mortality rate of newborns has been reduced in many parts of the world in the past two centuries, and we have learned much about how to keep increasing numbers of newborns alive and healthy. This is especially seen when healthcare providers and society collaborate in this important endeavor that includes emphasizing known preventive principles. Current modern pediatric and perinatal treatments allow newborns in the current 21st century America to have a start on an overall life expectancy of 78.5 years (up to 76 years in males and 80.9 years in females) if they receive meticulous medical care, and even if they are born into a penurious state. Such deserved care and inevitable medical discoveries will only lengthen these life trajectories. This second edition updates principles of caring for the newborn that were identified in the first edition. It considers the newborn examination, newborn screening, safe-sleep concepts, mother and newborn skin-to-skin contact, effects of prenatal drug use, mental health issues in the newborn, maternal mood disorders, infant feeding, circumcision, anticipatory guidance, and concepts of surgery in the newborn. Also considered are selective disorders found in some newborns that includes newborn neurology, cardiology, pulmonology, nephrology, gastroenterology, endocrinology and dermatology.

Pediatric and Adolescent Sexuality and Gynecology: Principles for the Primary Care Clinician, Second Edition
Hatim Omar (Chief, Section of Adolescent Medicine, Medical Director of the Adolescent Health Center, Lehigh Valley Reilly Children’s Hospital, Allentown, PA; Lehigh Valley Health Network, LVPG, Clinical Professor, Department of Pediatric and Adolescent Medicine, Western Michigan University Homer Stryker MD School of Medicine, MI), Donald E. Greydanus MD, Dr HC (ATHENS) (Professor & Founding Chair, Department of Pediatric & Adolescent Medicine, Western Michigan University Homer Stryker MD School of Medicine, Kalamazoo, MI), Dilip R. Patel MD, MPH, MBA (Professor & Chair, Department of Pediatric & Adolescent Medicine, Western Michigan University, Homer Stryker MD School of Medicine, Kalamazoo, MI) and Joav Merrick, MD, MMedSci, DMSc (National Institute of Child Health and Human Development, Jerusalem, Israel; Division of Pediatrics, Hadassah Hebrew University Medical Centers, Mt Scopus Campus, Jerusalem, Israel; Division of Adolescent Medicine, KY Children’s Hospital, Department of Pediatrics, Lexington, Kentucky, USA; School of Public Health, Georgia State University, Atlanta, Georgia, USA)

In series: Pediatrics, Child and Adolescent Health
Publication Date: 05/24/2021
617 pp.
Hardcover: 978-1-53619-340-4. $310.00
e-book: 978-1-53619-607-8. $310.00

Adolescent sexuality and gynecologic care of young patients are topics which make most clinicians uncomfortable. This is due to a lack of knowledge and training in many circumstances. Assumptions based upon knowledge of adult gynecology alone may be hazardous for pediatric and adolescent patients. These children and young women often do not have access to specialists who are able and willing to care for their gynecologic issues at an appropriate level. The primary care setting is often the most comfortable venue for a number of these patients. The concept for this book was to provide a reference for primary care providers without highly specialized gynecology textbooks, just to focus on what providers tackle on a daily basis. The first edition was well received and the feedback was good. In the 10 years since the first edition was published, our knowledge has improved and many new methods, medications and devices were added to daily practice. Those changes prompted the Editors to provide an updated version of the book, while keeping its essence intact.
Pediatric Critical Care: A Primer for All Clinicians
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In series: Emergency and Intensive Care Medicine
Publication Date: 04/16/2021
616 pp.
Hardcover: 978-1-53614-837-4. $310.00
Softcover: 978-1-53619-539-2. $89.00
e-book: 978-1-53614-838-1. $89.00

This practical handbook of pediatric critical care is written for all clinicians who care for children with acute illness. Specifically, chapters are written to provide helpful insights to all levels of pediatric providers including PICU nurses, Advanced Practice Nurses based in the PICU, medical students, pediatric residents, residents from other disciplines who rotate through PICU, hospitalists who may need to stabilize children prior to transfer to the PICU, and emergency physicians who may want to refer patients to the PICU. In addition to covering PICU-specific topics such as mechanical ventilation and procedural sedation, this handbook also includes guidance in the initial resuscitation, management and stabilization of critically ill children. Management of life-threatening situations that are specifically included in this book include respiratory failure, cardiovascular failure, electrolyte derangements, diabetic ketoacidosis, burn injuries, status epilepticus, status asthmaticus, toxic ingestions, and sepsis, among many others.

This easy-to-read handbook covers basic and fundamental concepts of pediatric critical care medicine and makes for easy reading when on call, at the bedside, or when evaluating a child who may need critical care services. At the same time, Pediatric Critical Care: A Primer for All Clinicians provides a quick and practical reference with high-yield information for the clinician who finds themselves in an emergency situation in need of immediate guidance for stabilization and management. We hope that you enjoy this compendium and most of all our intent is that you will find it useful and practical in the everyday care that is provided to critically ill neonates, infants, children and adolescents with the wide array of critical illnesses that you encounter every single day.

A Closer Look at Antibiotic Resistance
Victor Tsunoda
In series: Microbiology Research Advances
Publication Date: 03/04/2021
268 pp.
Hardcover: 978-1-53619-277-3. $195.00
e-book: 978-1-53619-319-0. $195.00

Bacterial infections have become more difficult, and sometimes impossible, to treat due to antibiotic resistance, which occurs when bacteria develop the ability to defeat the available drugs designed to kill them. According to the Centers for Disease Control and Prevention, each year, 2 million Americans become sick with antibiotic-resistant infections, and of that, about 23,000 die. This book examines the challenges related to antibiotic resistance, the development and use of diagnostic testing to identify antibiotic resistance, the development of treatments for resistant infections, and appropriate antibiotic use.
A Comprehensive Guide to Non-Steroidal Anti-Inflammatory Drugs
Suleyman Kaplan, PhD (Full Professor and Head of Department, Department of Histology and Embryology, Faculty of Medicine, Ondokuz Mayıs University, Samsun, Turkey)

In series: Pharmacology - Research, Safety Testing and Regulation
Publication Date: 02/10/2021
529 pp.
Hardcover: 978-1-53619-128-8. $310.00
e-book: 978-1-53619-215-5. $310.00

A Comprehensive Guide to Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) begins by describing the general characteristics, classification, pharmacokinetics, pharmacodynamics, clinical uses and adverse effects of NSAIDs. The adverse effects of NSAIDs, drug interactions and their clinical applications in neurological diseases, headaches, and cerebrovascular diseases are discussed. These drugs are also often used in dermatology, especially in the treatment of dermatosis. Extensive information concerning NSAIDs and dermatological diseases is provided. A broad perspective on the role of NSAIDs in infectious diseases is also provided.

The next chapter discusses findings concerning the effects of NSAIDs on bone and tendon healing, together with cellular and molecular factors. The authors suggest that NSAIDs may be a risk factor for tissue healing. Diclofenac sodium (DS), widely used in urology clinics, exhibits dose-dependent side effects on various systems. This chapter suggests that nanoparticle technology can be applied to the oral form of DS in order to reduce its side-effects. The effects of NSAIDs on the reproductive systems of both sexes are also evaluated. Both genders make extensive use of NSAIDs during infertility treatment.

Another chapter focuses on how DS affects spermatogenesis. The authors suggest that DS causes histopathological changes in the testes by disrupting the nutrition of testicular cells and impairing complete testis functions. Men wishing to have children should therefore use this drug with caution. The authors also review the effects of NSAIDs on prostatitis, benign prostatic hyperplasia and prostate cancer.

In the following chapter, the authors examine the role of NSAIDs in gynaecology and obstetrics. Advances in the use of NSAIDs and melatonin in reproductive medicine for both sexes are discussed. The authors describe the biological roles of NSAIDs and melatonin in human reproduction, diseases, pregnancy, and assisted reproductive treatment. The subsequent chapter highlights the side-effects of NSAIDs on the gastrointestinal system.

This book goes on to assess how DS affects the nervous system in the light of molecular and cellular analysis. The authors first explore the dose-dependent effects of DS on the nervous system. They then examine the potential neuroprotective / neurotoxic effects of DS on the nervous system, including the spinal cord, brain, cerebellum and peripheral nerves. The effects of DS on the adult hippocampus are assessed based on experimental studies. The purpose of this section is to highlight the relationship between oxidative stresses and the role of antioxidants in reducing DS toxicity. The importance of melatonin administration against pre- and postnatal DS toxicity in the nervous system is evaluated in several chapters. Recent findings suggest that prenatal exposure to NSAIDs causes an alteration in the morphology of optic nerve fibres based on stereological, histological and electron microscopic analysis.

The authors evaluate histomorphometric results from light and electron microscopic analysis of the effects of prenatal DS exposure on male fertility. Numerous studies have shown that all elements of the male system are affected by this exposure. Lastly, the authors specifically focus on Sertoli cells and suggest that prenatal DS exposure produces toxic effects on Sertoli cell morphology.

A Pharmacological Guide to Non-Steroidal Anti-Inflammatory Medications
Pugazhenthan Thangaraju, MBBS, MD, DNB, MNAMS, PGD, Diab, MBA Hospital Management (Assistant Professor, Pharmacology, All India institute of Medical Sciences, Raipur, Chhattisgarh, India)

In series: Pharmacology - Research, Safety Testing and Regulation
Publication Date: 07/14/2021
366 pp.
Hardcover: 978-1-53619-836-2. $230.00
e-book: 978-1-53619-905-5. $230.00

The purpose of this book is to provide a comprehensive source of information regarding NSAIDs in detail. NSAIDs are widely used and prescribed to all age groups. This book represents a new approach for undergraduate and post-graduate medical students of all specialties. The book was written in simple and easily understandable language for everyone.
This book is mainly focused on NSAIDs and related topics like mechanism and pharmacological actions, adverse drug reactions, fixed dose combinations, poisoning of overdose, usage in neurological conditions, geriatrics, pediatrics and pregnancy, NSAID-induced gastropathy and nephropathy, NSAIDs in oncology, pharmacogenomics, and in COVID. Their use is associated with a vast spectrum of adverse drug effects, so drug selection is crucial in various conditions. Each chapter of the book presents the pharmacology of NSAIDs in the framework of biochemical, physiologic or pathophysiologic systems. Each topic provides an understanding of the basic concepts of NSAIDs on already existing and on newer drugs and their pharmacological use in various organ systems at different age groups. Updated and recent information including the use of NSAIDs in COVID has been added. Detailed drug information in aspects of drug selection and its contraindications as per patients’ disease status and updated approaches in newer clinical perspectives were included. Diagrams, tables, and flowcharts are included to make the concepts easier to understand. At the end of each chapter, useful references are added for further reading.

**An Introduction to P-Glycoprotein**

M. Wahajuddin, PhD, FHEA, FRSB, FRSC (Principal Scientist, CSIR-Central Drug Research Institute, Lucknow (U.P.), India), Ravindra Varma Alluri, PhD (Associate Principal Scientist, Clinical Pharmacology and Safety Sciences, AstraZeneca R&D, Cambridge, UK) and Rahul Dev Jayant, PhD (Assistant Professor, Texas Tech University Health Sciences Center, Texas, USA)

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393 pp.
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e-book: 978-1-53619-728-0. $230.00

P-glycoprotein (P-gp), encoded by the multidrug-resistance (MDR)-1 gene is one of the best studied efflux transporters that is linked to multidrug resistance in cancer chemotherapies. P-gp belongs to the ATP-binding cassette (ABC) transporter family of proteins that utilizes energy derived from hydrolysis of ATP to efflux endogenous and exogenous xenobiotics, metabolites and toxins from the intracellular space to the outside, thereby providing a general protective role. P-gp is expressed on the apical plasma membrane of all major drug eliminating organs such as the intestine (enterocytes), liver (bile canaliculi), kidney (proximal tubules), brain (endothelia of blood-brain barrier) and in certain tumor types. In the intestine and BBB, P-gp limits entry of drugs by actively pumping drugs back into the lumen or blood, respectively. In the liver and kidney, P-gp actively effluxes drugs, endogenous substances and metabolites into bile or urine, thereby removing them from the body. Upregulation of P-gp in tumor cells is noted in several cancers and is a hallmark for drug resistance. Additionally, P-gp is also shown to play a role in neurogenesis and maintaining homeostasis in the brain. Alteration of P-gp expression is observed in neurodegenerative diseases, highlighting its importance in maintaining normal brain health.

Due to its central role in defining oral pharmacokinetics, systemic clearance, tissue exposure, organ health and chemoresistance, much of the research has been focused on modulating P-gp. Chemical inhibitors, formulation-based and epigenetic approaches are applied to modulate P-gp activity with a goal to improve oral pharmacokinetics, increase tumor and brain penetration, minimize organ toxicity and potentially treat neurodegenerative diseases. Although enormous research on P-gp has been published, a book chapter exclusively and comprehensively covering diverse aspects of P-gp, including the recent developments in the field, is required. With much enthusiasm from the publisher, we have collaborated to bring together wide-ranging topics on P-gp. This book contains 12 chapters covering the structure, function, regulation, distribution and expression of P-gp, its pharmacological importance in health and disease and role in pharmacokinetics and drug-drug interactions. Also included are computational approaches to identify selective inhibitors and tactics to modulate P-gp function using chemical inhibitors (synthesized or isolated from marine sources), formulation strategies or epigenetic approaches. The last chapter describes various methods to quantify P-gp expression levels and function in vitro, in situ and in vivo settings. It is our sincere hope that this material will serve as an important desk reference for students, researchers and clinical scientists in academia, medical research and the pharmaceutical industry working in various fields such as pharmacology, pharmacy, toxicology, medicinal chemistry, pharmaceutical sciences, pharmacokinetics and computational biology.

Finally, we wish to acknowledge the contributions of all the authors who passionately contributed to this book. We also extend our gratitude to the editorial staff and production manager at Nova publishers. Lastly, but most importantly, we thank our families for their continued support during this journey.
Handbook of Novel Drug Delivery

Dr. Balram Ambade (Associate Professor & Head of Department, Department of Chemistry, National Institute of Technology, Jamshedpur, Jharkhand, India), Dr. Rajendra Kumar Jangde (Assistant Professor, University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur (C.G.), India) and Sulekha Khute (University Institute of Pharmacy, Pt. Ravishankar Shukla University, Raipur (C.G.), India)

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110 pp.
Softcover: 978-1-53619-075-5, $82.00
e-book: 978-1-53619-091-5, $82.00

This book presents advances in the field of novel drug delivery, focusing on novel molecules with potential to transform the treatment and preclusion of wound healing. However, such potential is severely compromised by significant obstacles to the delivery of these drugs in vivo. Sophisticated drug delivery and targeting can offer substantial advantages to conventional drugs, such as increased efficiency, handiness, and the potential for line extensions and market expansion. A simple, accessible, and easy-to-read handbook, Handbook of Novel Drug Delivery is the first book to provide a comprehensive introduction to the principles of advanced drug delivery systems.

Forensic Psychiatry and Ethical Approaches in Legal Issues

Nursen Turan Yurtsever (Forensic Medicine Department, Marmara University, School of Medicine, Istanbul, Turkey)

In series: Psychiatry - Theory, Applications and Treatments
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228 pp.
Hardcover: 978-1-53619-530-9, $160.00
e-book: 978-1-53619-606-1, $160.00

Forensic Psychiatry is a field that is more specialized in psychiatry. Specialists who are working in this field are confronted with many ethical-legal problems. Although forensic psychiatry field has multidisciplinary interactions, in literature, there are limited publications about forensic psychiatry. In this book, authors who are experts in their fields, state the main problems confronted by forensic psychiatrists and put forth ethical approaches for legal and ethical problems. The authors emphasize the basic clinical skills and the trainee of the expert is required for a full assessment and understanding of any forensic psychiatry issue. The text also emphasizes an evidence-based approach to practice and gives full attention to ethical and legal issues. This book integrates the classical principles of medical ethics with modern medical applications while demonstrating the clinical applications of this knowledge for the diagnosis and management of a wide range of forensic psychiatry topics. This book will be useful for qualified psychiatrists, forensic medicine specialists, medical students, and those in fields related to current forensic psychiatry practices.

Innovations in Psychiatry

Souparno Mitra, MD (Resident Psychiatry, Bronxcare Health System, Icahn School of Medicine at Mount Sinai, NY, USA), Urmik Chaudhuri (PhD Student, Isenberg School of Management, University of Massachusetts, Amherst, MA USA) and Panagiota Korenis, MD (Program Director and Vice Chair of Education, Icahn School of Medicine at Mount Sinai and Albert Einstein College of Medicine, NY, USA)

In series: Psychiatry - Theory, Applications and Treatments
Publication Date: 04/05/2021
174 pp.
Softcover: 978-1-53619-365-7, $95.00
This book will present the most up to date and concise information related to psychiatric innovations and is especially written for those looking for a quick and easy reference guide. Conveniently formatted to present the most current and up to date concepts and ensure that you are prepared for your psychiatry shelf, PRITE™, psychiatry boards and recertification exams. It will quickly become your go to reference material for psychiatric technological innovations.

The Power of Peer Providers in Mental Health Services
Patrick W. Corrigan (Distinguished Professor of Psychology, Illinois Institute of Technology, Chicago, IL, USA)
In series: Psychology Research Progress
Publication Date: 05/24/2021
357 pp.
Hardcover: 978-1-53619-597-2. $230.00
e-book: 978-1-53619-680-1. $230.00
People with lived experience of mental illness and recovery are joining leagues of skilled providers who offer services to meet the needs of people with serious psychiatric disorders. The emergence of peer power rides the crest of insights that appeared over the past 50 years related to hope, recovery, and self-determination. Key to these insights is support: coaches, navigators, mentors, and care coordinators who are in the field, addressing the person’s goals, and barriers to goals, as they emerge. Peers can clearly learn the interpersonal and instrumental skills of support. In fact, their learned experience may give them special skills and insight into this supportiveness. This book is a deep review into both the conceptual and empirical elements of peer support services.

Trauma-Informed Care: Addressing Cultural Sensitivity of the Women Veterans with Post-traumatic Stress Disorder Related to Military Sexual Trauma in the Veterans Administration and Civilian Health Care Systems
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Publication Date: 03/09/2021
382 pp.
Hardcover: 978-1-53619-210-0. $195.00
e-book: 978-1-53619-299-5. $195.00
Trauma-informed care: Addressing cultural sensitivity of the women veterans with posttraumatic stress disorder related to military sexual trauma in the Veterans Administration and civilian health care systems is a book born from the mind of a woman veteran. Providing a space for women to write about and for women veterans who receive services for military sexual trauma and posttraumatic stress disorder. This book is a call to action to Veterans Affairs, the Veterans Health Administration and the civilian health care system to provide trauma-informed care where our US women veterans sometimes go for treatment. Above all, Trauma-informed care: Addressing cultural sensitivity of the women veterans with posttraumatic stress disorder related to military sexual trauma in the Veterans Administration and civilian health care systems gives voice to the millions of women veterans who feel they have no voice when interacting with healthcare systems.

Addiction and Substance Abuse
Complementary and Integrative Approaches to Substance Use Disorders
Rita Cola Carroll, PhD, CPCRT, CBIST (Faculty, Complementary and Integrative Health Program, College of Nursing and Health Professions, Drexel University, Philadelphia, PA, USA; Managing Partner, Laurel Lake Consulting, Malvern, PA, USA)
In series: Substance Abuse Assessment, Interventions and Treatment
Publication Date: 06/02/2021
With rising rates of morbidity and mortality from substance abuse, addictions and mental health professionals are called upon to integrate innovative treatment modalities that are effective in supporting health and well-being, managing stress, decreasing cravings, supporting abstinence, and addressing the mental health issues that commonly occur with substance use disorders. An approach that blends the best of conventional treatment with complementary therapies and techniques, can bring optimal health and wellness based on the unique needs, preferences, and goals of each person. This book details complementary and integrative health modalities that promote physical, emotional, cognitive, and spiritual health, and recommends self-care and healthy lifestyle practices for sustainable recovery from substance use disorders. These modalities were chosen based on a body of scientific research supporting their inclusion, and with a focus on the whole person, mind, body, and spirit. Practitioner delivered therapies are presented, such as Acupuncture, Healing Touch and Art Therapy. Modalities that are learned in formal treatment and then translated into personal practices after discharge, such as Meditation, Nutrition for Recovery, and Emotional Freedom Technique are reviewed. Case studies explore these modalities to illustrate applications and integration into conventional treatment. The book concludes with recommendation for self-care that can bring improved health, quality of life and vitality for long term recovery.

Child and Adolescent Psychiatry

Child and Adolescent Psychodynamic Psychotherapy

Stylianos Christogiorgos, MD, PhD (Associate Professor of Child Psychiatry, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece; Hellenic Association of Child and Adolescent Psychoanalytic Psychotherapy, Athens, Greece) and Georgios Giannakopoulos, MD, PhD (Assistant Professor of Child Psychiatry, School of Medicine, National and Kapodistrian University of Athens, Athens, Greece)

In series: Psychiatry - Theory, Applications and Treatments

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362 pp.

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e-book: 978-1-53619-313-8. $230.00

This edition is an attempt to present the reader with a lucid and concise, yet comprehensible text that outlines the key components that are required for practicing psychodynamic psychotherapy of children and adolescents. There is a brief exposition of the oeuvre of the three main successors of Sigmund Freud’s prodigious work, and their significant contribution to the formation of both the theory and technique of child and adolescent psychodynamic psychotherapy. In addition, there is a description of the key parameters of psychodynamic approach for the therapy of the most-often attested conditions in childhood and adolescence. Special reference is made to particular issues that have a bearing on practicing child and adolescent psychodynamic psychotherapy in the present day.

Throughout this book and where it was deemed necessary, the inclusion of informative (yet appropriately disguised) clinical material, originating from the authors’ broad clinical experience, significantly enriches its content. The book’s chapters are written with clarity, whilst its topics are informed by state-of-the-art theorization and supported by selected both recent and seminal references.

The content of this book will be invaluable to the readers who need a careful description of the fundamentals of contemporary psychodynamic approaches to the comprehension and therapeutic treatment of children and adolescents’ psychopathology, including the specificities, challenges and questions raised accordingly. Notwithstanding any omissions, it is its authors’ belief that the book in question deserves a place in the library of anyone with a genuine interest in child and adolescent psychodynamic psychotherapy.
Coronavirus Disease: From Molecular to Clinical Perspectives
Yildiz Dincer, PhD (Istanbul University - Cerrahpasa, Cerrahpasa Medical Faculty, Department of Medical Biochemistry, Istanbul, Turkey)

In series: Public Health in the 21st Century
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310 pp.
Harcover: 978-1-53619-296-4. $230.00
e-book: 978-1-53619-311-4. $230.00

The world is experiencing an unprecedented challenge due to coronavirus disease (COVID-19) pandemic. In December 2019, a novel severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) was identified as the cause of a cluster of pneumonia cases in Wuhan, a city in the Hubei province of China. It rapidly spread, resulting in an outbreak of COVID-19. Although the majority of the infected individuals exhibit mild to moderate respiratory illness and recover without requiring special treatment, older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer may rapidly progress to acute respiratory distress syndrome, septic shock, coagulation disorders, multi-organ failure, and death. The course of COVID-19 is usually mild in children. However, in rare cases, children can be severely affected, and clinical manifestations may differ from adults. Some children present the multisystem inflammatory syndrome that is similar to incomplete Kawasaki disease or toxic shock syndrome. There is no specific treatment and vaccine for COVID-19. Due to the high infectivity rate of COVID-19, the unexpected and rapid influx of large numbers of patients, especially patients who need intensive care, have caused great pressure on the health care systems worldwide. The worldwide spread of COVID-19 caused fear, anxiety, depression, panic attacks, and a general decrease in overall wellbeing in the population. Healthcare professionals who occupy the front line during pandemics are at increased risk concerning their physical and mental health. The outbreak of COVID-19 negatively affected all aspects of life including education, trade, and tourism. Our knowledge of this novel virus is limited. However, many ongoing clinical trials are evaluating potential treatments and vaccines. A better understanding of the pathogenesis of COVID-19 will provide important insight into its management and reduce the mortality rate. Based on the latest global scientific data and clinical experiences of the authors, this book gives the readers an overview of COVID-19 pathogenesis and transmission routes, current diagnostic and treatment strategies, the clinical course of the disease in children and elderly patients, the genetic background of differences in the incidence of new SARS-CoV-2 infection, the impact of the COVID-19 pandemic on patients with chronic diseases such as diabetes, cancer, cardiovascular diseases, chronic respiratory diseases, antioxidant therapy to limit tissue damage, molecular approaches in COVID-19 treatment, and vaccine studies.

More Prescription for Change: Case Studies for Applications of Strategy and Strategic Intervention in National and International Health Systems in Response to a COVID Pandemic
Laure Paquette, PhD (Professor Emerita of Political Science at Lakehead University, Thunder Bay, Ontario, Canada)

In series: Public Health in the 21st Century
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194 pp.
Harcover: 978-1-53619-097-7. $160.00

This book illustrates the use of strategy by national and international groups using fictional case studies. The cases are fictional in the sense that the information provided was not collected using the methodology used for previous case studies about states or groups of states. Instead, the author combined characteristics and information as she saw necessary in order to make the example clear to the reader. The case studies include: an infra-national group strategizing to cope with a phenomenon, an individual, another infra-national group, a supranational group, a government or state, and a group of government or states. It also includes the study of a phenomenon, here COVID-19. The present book also differs from previous case studies to the extent that the various components of the strategy are not clearly identified. This will allow the self-taught strategist to use them to test their own skills at strategic analysis.
Non-Invasive Mechanical Ventilation Complications: Essentials for Treatment and Prevention

Antonio M. Esquinas PhD, MD (International Fellow AARC, Intensive Care Unit, Hospital Morales Meseguer, Murcia, Spain)

In series: Pulmonary and Respiratory Diseases and Disorders
Publication Date: 07/14/2021
396 pp.
Hardcover: 978-1-53619-515-6. $230.00
e-book: 978-1-53619-903-1. $230.00

Noninvasive mechanical ventilation has managed to establish itself as the treatment option for a wide variety of causes of acute and chronic respiratory failure in different settings in hospital and home noninvasive mechanical ventilation. In the last decades, we have discovered its positive effects on gas exchange and symptoms such as dyspnea control, widely contrasted against endotracheal intubation. However, although this wide range of beneficial effects have been described, pathophysiology, diagnosis, prevention and treatment of noninvasive mechanical complications could not be forgotten for a correct application as they clearly affect patient outcome and mortality.

Nowadays, there is a scarce number of publications analyzing noninvasive mechanical ventilation complications and this book is the first dedicated to its analysis. This book brings together a broad multidisciplinary vision of common and unusual complications, thus it serves as the original and essential scientific published reference on noninvasive mechanical ventilation complications.

The present book has been structured to offer through its sections and chapters an exhaustive and in-depth analysis of noninvasive mechanical ventilation complications, mechanisms, direct or indirect factors determinants, key recommendations for the early diagnosis and treatment for most frequent applications from multidisciplinary perspective. Finally, we analyze noninvasive mechanical ventilation complications and how they impact in short- and long-term complications and mortality. The book concludes analyzing evidence in diagnosis, prevention and treatment. We believe that the readers of this book will find in it an essential reference for a correct application of noninvasive mechanical ventilation, and thus be able to improve results and prognosis. Only the precise knowledge of complications of noninvasive mechanical ventilation will allow us to achieve a proper application to success.

Practical Guide for Pulmonary Rehabilitation: The Essential Source for Pulmonary Rehabilitation Programs

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e-book: 978-1-53619-125-7. $230.00

This book provides up-to-date knowledge on almost all aspects of the multidisciplinary approach to pulmonary rehabilitation. The book advises on how to open a pulmonary rehabilitation program, how to evaluate the chronic lung patients for their fitness level, to prescribe exercises, how to tackle aspects like end-of-life care and provides information about telemedicine rehabilitation in the COVID-19 era. The book also covers subjects of interest like the history and future of pulmonary rehabilitation, smoking cessation, physiology of the skeletal muscle, airways clearing, medication, oxygenotherapy and special consideration for elderly patients with co-morbidities.

There are evidence-based explanations regarding all these aspects that will benefit respirologists who have an interest in pulmonary rehabilitation, physiotherapists, occupational therapists, doctors in training, respiratory nurses, and family medicine physicians.

Furthermore, the contributors are professionals with experience in pulmonary rehabilitation in major rehabilitation centers around the world who are known for their research, teaching and publishing on the international arena.
Principles and Practice of Non-Invasive Mechanical Ventilation Monitoring: From Intensive Care to Home Care
Antonio M. Esquinas, M.D, Ph.D, FCCP (International Fellow AARC, Intensive Care Unit, Hospital Morales Meseguer, Murcia, Spain)

In series: Medical Procedures, Testing and Technology
Publication Date: 07/06/2021
509 pp.
Hardcover: 978-1-53619-689-4. $310.00
e-book: 978-1-53619-850-8. $310.00

Non-invasive ventilation is the delivery of oxygen via a face mask and is used in the treatment of respiratory failure in chronic obstructive pulmonary disease, cardiogenic pulmonary oedema, and other respiratory conditions. Because patients rely upon ventilation systems to breathe, it is essential to monitor patients' respiratory function on an ongoing basis. However, this monitoring can prove to be difficult, particularly when patients receive ventilation treatment outside of the hospital and in their homes. As such, this book provides extensive detail concerning the monitoring of non-invasive mechanical ventilation systems in a variety of contexts.

Pulmonary Vascular Disorders
Roberto G. Carbone, MD (Consultant Cardio-Pulmonary Diseases, Department of Internal Medicine, University of Genoa, Genoa, Italy), Francesco Puppo, MD (Professor of Internal Medicine and Clinical Immunology, Department of Internal Medicine, University of Genoa, Genoa, Italy) and Victor F. Tapson, MD (Professor of Medicine, Department of Medicine; Division of Pulmonary and Critical Care, U.S. Pulmonary Embolism Consortium, Cedars-Sinai Medical Center, Los Angeles, CA, USA)

In series: Pulmonary and Respiratory Diseases and Disorders
Publication Date: 04/28/2021
584 pp.
Hardcover: 978-1-53619-458-6. $310.00
e-book: 978-1-53619-553-8. $310.00

Pulmonary vascular disorders are a complex and fascinating group of diseases. The aim of this book is to exhaustively review the genetics, physiology, diagnosis, management, and treatment of pulmonary vascular disorders with the purpose of helping general physicians and specialists in internal medicine, cardiology, pneumology, immunology, rheumatology, and hematology to identify and assess patients with vascular pulmonary disorders. Special emphasis has been placed upon pulmonary hypertension, pulmonary fibrosis, and pulmonary embolism as well as on pulmonary vascular involvement in immune-mediated diseases, chronic obstructive and advanced pulmonary disease, and sleep apnea. Additional topics that are covered in this book include pulmonary vascular injury occurring in alpha-1 antitrypsin deficiency, congenital heart disease and pregnancy. The text is supported by figures and tables to help the reader understand mechanisms of pulmonary vascular disorders in different clinical settings.

Respiratory Care in Non Invasive Mechanical Ventilatory Support: Principles and Practice
Antonio M. Esquinas, M.D, Ph.D (International Fellow AARC, Intensive Care Unit, Hospital Morales Meseguer, Murcia, Spain) and Mohammed AlAhmari PhD (Chief Executive Officer, Dammam Medical Complex, Dammam Health Network (KSA), Eastern Health Cluster, Dammam, Saudi Arabia; Prince Sultan Military College of Health Sciences, Respiratory Care Department, Dammam, Saudi Arabia)

In series: New Developments in Medical Research
Publication Date: 07/14/2021
607 pp.
Hardcover: 978-1-53619-702-0. $325.00
e-book: 978-1-53619-902-4. $325.00
Non-invasive ventilation refers to the use of breathing support administered through a face mask, nasal mask, or helmet. This form of ventilatory support is useful in the treatment of respiratory illnesses including SARS, MERS, PH1N1, and COVID-19. Consisting of 63 chapters, this book provides a detailed, holistic overview of the principles and practice of non-invasive mechanical ventilatory support.

### Special Topics

#### Advances in Health and Disease. Volume 31

**Lowell T. Duncan**

In series: *Advances in Health and Disease*

Publication Date: 01/13/2021

261 pp.

Hardcover: 978-1-53619-009-0, $250.00

e-book: 978-1-53619-094-6, $250.00

This compilation reviews the current knowledge on tick-borne diseases in Southeast Asia and identifies the gaps in information that will direct future investigations. Following this, the effects of moderate hypothermia for different durations on the intensity of blood free radical processes and erythrocyte osmotic fragility are studied in rats.

The authors summarize the different molecular methods for the detection and genotyping of Noroviruses and Sapoviruses, two genera in the Caliciviridae family that cause acute intestinal gastroenteritis, a disease usually associated with diarrhoea and/or vomiting.

Information about infant and parental factors with respect to paternal involvement in infant sleep is provided, particularly focusing on parental psychosocial functioning, the sleep behaviors of parents and the quality of relationship with their infant at bedtime.

The closing study focuses on scleroderma renal crisis, a complication of systemic sclerosis with high morbidity and mortality characterized by a sudden and marked increase in systemic blood pressure and rapidly progressive oliguric renal failure.

#### Advances in Health and Disease. Volume 32

**Lowell T. Duncan**

In series: *Advances in Health and Disease*

Publication Date: 02/24/2021

206 pp.

Hardcover: 978-1-53619-212-4, $250.00

e-book: 978-1-53619-285-8, $250.00

This compilation begins by exploring some socio-anthropological aspects of hypertension, namely the disparity between medical and patients’ understanding of the disease and how this difference affects medical management, self-care and prevention of disease, the process of coping with suffering and other factors. Chapter 2 reviews the current status of various techniques applied in nano-encapsulation of vitamin E in the food, pharmaceutical and cosmetic industries and the versatile advantages nano-encapsulation of vitamin E provides for site-specific targeted delivery and effective absorption along cells. Chapter 3 discusses the medical imperative of ensuring pain relief for children facing the end of life, provides information about palliative pain management and summarizes the current literature on the subject.

Following chapters present data on the impact of education and reading and writing habits on linguistic processing abilities and other cognitive constructs relating to healthy aging, discussions of ethical dilemmas associated with pediatric palliative care including parents’ decision making and medical futility, and a review of the recommended treatment for multidrug resistant tuberculosis (MDR-TB) with strategies to prevent transmission and treatment failure. Also, the compilation includes a chapter exploring the oral and dental manifestations of Paget’s disease, a bone remodeling disease in which increased bone resorption occurs followed by excessive deposition of structurally inorganized and weaker bone, and a quantitative analysis of the mortality rates due to Parkinson’s disease in the USA from 1976 to 2017.
Advances in Health and Disease. Volume 33
Lowell T. Duncan
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228 pp.
Hardcover: 978-1-53619-368-8. $250.00
e-book: 978-1-53619-483-8. $250.00
This volume comprises 9 chapters, each concerning a recent advancement in health and disease. Chapter 1 critically appraises the current literature related to pediatric obesity and asthma, summarizes the evidence on the impact of excess body fat on the pulmonary system in pediatric asthma patients, and discusses possible mechanisms as well as effective public health strategies for reducing the increasing obesity trend and mitigating asthma risk. Chapter 2 details the nutritional and bioactive composition of lactuca sativa, commonly called lettuce, including its antioxidant, cholesterol-lowering, cardioprotective, neuroprotective, anti-diabetic, anti-inflammatory, anti-proliferative, and anti-cancer properties. Chapter 3 attempts to shed light into the pathogenetic mechanisms connecting metabolic syndrome and nonalcoholic fatty liver disease (NAFLD) to the emergence and progression of hepatocellular carcinoma, emphasizing the evolving epidemiological profile of this type of cancer. Chapter 4 is also about lettuce and provides another perspective on the nutritional composition and health benefits among different varieties of the vegetable. Chapter 5 deals with the health promoting effects of onions (allium cepa L), including their insulin secretagogue effect, hypoglycemic influence, hypolipidemic action, antioxidant effect, cardioprotective effect, gallstone prevention, cancer preventive potential, and digestive stimulant action, all of which are scientifically validated. Chapter 6 remarks on the difficulties associated with diagnosing rare diseases and describes several systems-level interventions that can be expected to limit the diagnostic delays experienced by patients with rare diseases and the frustration associated with years or decades of untreated symptoms. Chapter 7 describes the prevalence and effects of iron deficiency and anemia as well as treatment options for these conditions. Chapter 8 once again focuses on lettuce, this time exploring the nutritional and anti-cancer effects of carotenoids from different varieties of lettuce. Finally, Chapter 9 describes an application for the diagnosis of hypothermia in forensic practice wherein the color difference between blood in the left cardiac chamber and blood in the right cardiac chamber can be examined using a CO-oximeter.

Advances in Health and Disease. Volume 34
Lowell T. Duncan
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Hardcover: 978-1-53619-433-3. $250.00
e-book: 978-1-53619-653-5. $250.00
This volume presents eight chapters, each focused on a particular topic in health and disease. Chapter One reviews the mechanism of action and clinical evidence available on the effect of sodium-glucose co-transporter 2 inhibitors (SGLT2i) on glycemic control, weight, blood pressure, and cardiovascular and renal outcomes in patients with type 2 diabetes. Chapter Two explains the diagnosis and management of bruxism, a disorder defined by the repetitive involuntary activity of muscles of mastication characterized by teeth clenching or grinding. Chapter Three details the diagnosis and treatment options for acute appendicitis. Chapter Four focuses on the evolution of pharmacological management of gastroesophageal reflux disease (GERD) with a focus on the current updates in terms of the safety and efficacy of acid suppressive therapy (AST). Chapter Five explores the profile of pediatric patients with bruxism following a therapeutic care program in a health center specialized in bruxism during childhood. Chapter Six discusses the role of anti-reflux surgery in GERD, which is used in cases where AST fails to treat the disease. Chapter Seven provides another perspective on the diagnosis and management of acute appendicitis. Finally, Chapter Eight focuses on the diagnosis of GERD, as well as its medical, endoscopic and surgical management.

Advances in Health and Disease. Volume 35
Lowell T. Duncan
In series: Advances in Health and Disease
Publication Date: 05/14/2021
246 pp.
Hardcover: 978-1-53619-547-7. $250.00
e-book: 978-1-53619-655-9. $250.00
This compilation contains eight chapters, each presenting a unique perspective on issues relating to health and disease. Chapter One describes the use of the newly invented
technique called acupuncture point injection therapy, which combines acupuncture and medicine, for treatment of complex regional pain syndrome. Chapter Two reviews recent updates on the pathogenesis, diagnosis, and management of iron deficiency anemia. Chapter Three reviews and explores the effects of the Mediterranean diet on age-related cognitive decline and the development of neurocognitive disorders. Chapter Four discusses the incidence and prognostic significance of sepsis-associated thrombocytopenia, summarizes the possible underlying mechanisms, and considers future directions of research. Chapter Five examines the prevalence, risk factors, and treatment of colorectal polyps, which are the most common benign tumors of the large intestine. Chapter Six covers the epidemiology, diagnosis, and treatments available for Tourette’s Syndrome. Chapter Seven focuses on the link between type 2 diabetes mellitus and cognitive impairment and discusses therapies to improve cognitive functioning and increase patients’ quality of life. Lastly, Chapter Eight reviews the clinicopathologic manifestations of neurosarcoidosis, including pathologic differential diagnostic considerations.

**Advances in Health and Disease. Volume 36**

_Lowell T. Duncan_

In series: *Advances in Health and Disease*

Publication Date: 05/14/2021

232 pp.

Hardcover: 978-1-53619-569-9, $250.00
e-book: 978-1-53619-605-4, $250.00

"Advances in Health and Disease – Volume 36" focuses on the latest research on medicine and health. The chapters cover managing kidney disease in gout; vancomycin encapsulated in nanocarriers as therapy for infections caused by resistant bacteria; the etiopathogenesis, evaluation and management outcomes for neutropenia; air pollution and bone mineral density and a review of the literature on health care access and health care utilization on infant mortality rates.

**Advances in Health and Disease. Volume 37**

_Lowell T. Duncan_

In series: *Advances in Health and Disease*

Publication Date: 05/24/2021

234 pp.

Hardcover: 978-1-53619-671-9, $250.00
e-book: 978-1-53619-700-6, $250.00

This book is comprised of eight chapters, each of which describes a recent advancement in the field of health and disease. Chapter One discusses the opportunities created by technological advancement for treatment of Acute Lymphoblastic Leukemia. Chapter Two presents a review of the last five years of pharmacological development related to treatment of high uric acid levels in blood and gout. Chapter Three describes the patterns of behavior that put adolescents at risk for developing obesity or overweight and details prevention and treatment methods. Chapter Four describes principle complications and their management associated with endoscopic sinus surgery. Chapter Five proposes a review of classification of transphenoidal skull base approaches and shows the main transnasal corridors to the sphenoid sinus based on the anatomical sphenoidal target and extension of pathology. Chapter Six discusses the minimally invasive sinus technique and the differences between it and functional endoscopic sinus surgery. Chapter Seven evaluates the efficacy and safety of prolonged low-dose clarithromycin therapy in patients with chronic polyp rhinosinusitis after endoscopic breast surgery. Finally, Chapter Eight evaluates the usefulness of computer-assisted navigation in endoscopic sinus surgery.

**Advances in Health and Disease. Volume 38**

_Lowell T. Duncan_

In series: *Advances in Health and Disease*

Publication Date: 06/11/2021

228 pp.

Hardcover: 978-1-53619-723-5, $250.00
e-book: 978-1-53619-780-8, $250.00

This monograph consists of eight chapters that provide updates in the field of health and disease. Chapter One describes orthostatic hypotension, a geriatric syndrome caused by postural blood pressure change, and its impact on quality of life in the elderly. Chapter Two describes the causes and effects of endometriosis, a common condition in women of reproductive age that is very frequently associated with infertility. Chapter Three also relates to infertility, as it presents up-to-date information on the impact of stress, anxiety, and depression on conception, impaired fertility, and infertility. Chapter Four investigates the possible involvement of the superior colliculus in eye movement...
problems associated with progressive supranuclear palsy, a rare type of “parkinsonism” that can affect all types of eye movement. Chapter Five summarizes the recently published, epidemiological findings referring to the impact of environmental and occupational factors on fecundity and fertility. Chapter Six describes the use of electrodiagnostic evaluation for lumbar spinal stenosis, which in many cases correlates with symptoms better than diagnostic imaging. Chapter Seven investigates the association between substance abuse and the decision to seek abortion among low-income women. Finally, Chapter Eight shows how the qualitative and quantitative properties of eigenvalues can explain phenomena ranging from the dynamics of human reactions in tactile environments to the dynamics of the COVID-19 pandemic.
In the first chapter, the authors intend to carry on a critical review of the different methods and approaches to determine the biomechanical output of joint stiffness, designated as dynamic joint stiffness by the authors. The second chapter summarizes several preceding articles on invasive procedures applied with questionable clinical indications in the former Soviet Union. The aim of the third chapter is to give information about how to use tacrolimus, in which type of glomerulonephritis and what are the treatment results, especially remission and relapse rates. In the fourth chapter, a ten-week experiment was conducted to assess the effect of supplementing Synechococcus sp. and Synechocystis sp. on the growth performance, haematology, serology and disease resistance in Oreochromis mossambicus. In the final chapter, discussions of the special properties of endothelial cells and their ability to generate the thrombotic microangiopathic syndrome and ARDS are undertaken based upon current knowledge of the capillary endothelial cells. Attempts are made to address the current pathophysiology of non-idiopathic thrombotic microangiopathy.
Advances in Medicine and Biology. Volume 178
Leon V. Berhardt

In series: Advances in Medicine and Biology
Publication Date: 06/30/2021
278 pp.
Hardcover: 978-1-53619-706-8. $250.00
e-book: 978-1-53619-738-9. $250.00

This monograph includes seven chapters that describe recent advances in medicine and biology. Chapter One discusses glutathione transferases (GSTs) from helminth parasites in the host-parasite interaction and candidates for vaccine development targeting parasitic GSTs. Chapter Two reviews the pharmacological and therapeutic effects of onion and its constituents in allergic and immunologic disorders. Chapter Three discusses state-of-the-art knowledge of apolipoprotein E (ApoE) polymorphism to demonstrate its wide biological properties and its effects on how medical conditions can be managed. Chapter Four introduces the antiviral and immunomodulatory effects of macrolides and the associated mechanisms in the human airway and lung cells. Chapter Five evaluates the role of several genes that are likely to be involved in diabetic neuropathy by employing transcriptome analysis. Chapter Six details diagnosis, risk factors, and treatment of nephrotic syndrome, the frequent cause of chronic kidney diseases observed in children and adults. Finally, Chapter Seven describes the characteristics of the Michigan Cancer Foundation-7 (MCF-7) cell line and its significant role in the anticancer research paradigm.

Advances in Medicine and Biology. Volume 179
Leon V. Berhardt

In series: Advances in Medicine and Biology
Publication Date: 07/22/2021
278 pp.
Hardcover: 978-1-53619-764-8. $250.00
e-book: 978-1-53619-847-8. $250.00

This edited volume includes eight chapters, each of which describe recent advances in medicine and biology. Chapter One discusses dietary recommendations and beneficial compounds, such as vitamin D, omega-3 fatty acids, antioxidants, and phytochemicals to aid the management of abnormal lipid metabolism in postmenopausal women. Chapter Two discusses the role of viral infection and features from the host that take part in the development of hemophagocytic lymphohistiocytosis (HLH). Chapter Three analyzes the effects of caffeine and coffee consumption on airways and lung function, particularly in the case of asthma. Chapter Four describes the use of natural and herbal drugs in the treatment of hepatitis B. Chapter Five presents the results of a genetic survey for carbapenem-resistant Klebsiella pneumoniae (CRKP). Chapter Six describes the treatment of degenerative lumbar spinal stenosis using soft interspinous process device. Chapter Seven reviews the efficacy of tonsillectomy for rheumatic diseases. Finally, Chapter Eight summarizes the available literature concerning graft pre-soaking in anterior cruciate ligament reconstructions as a method of reducing the likelihood of post-operative infections, which can lead to septic arthritis.

Advances in Medicine and Biology. Volume 180
Leon V. Berhardt

In series: Advances in Medicine and Biology
Publication Date: 06/11/2021
236 pp.
Hardcover: 978-1-53619-765-5. $250.00
e-book: 978-1-53619-807-2. $250.00

This monograph contains six chapters, each of which provides details about recent advancements in the field of medicine and biology. Chapter One describes the discovery of AZQ, a drug specifically designed to shut off genes that cause brain cancer. Chapter Two analyzes the structure, stability, adaptation to extreme environments and the catalytic mechanism of α-helical membrane proteins. Chapter Three provides an up-to-date overview of artificial intelligence (AI) in assisted reproductive treatment (ART) clinics and explores how AI learns and develops a dataset to provide clinical guidance. Chapter Four consists of a study focused on the etiopathogenesis of primary open angle glaucoma using laboratory mice. Chapter Five presents and comments on the current evidence regarding diagnostics in patients with metastatic breast cancer based on circulating tumor cells (CTCs). Lastly, Chapter Six reviews the pathogenetic and clinical features of inner ear involvement in congenital cytomegalovirus (cCMV), the most frequent non-genetic cause of permanent sensorineural hearing loss in childhood.
This book includes five chapters, each representing a recent advancement in medicine and biology. Chapter One discusses future aspects of sports medicine and their applications. Chapter Two deals with clinical visual impairment in the elderly population resulting from neurodegenerative diseases such as Alzheimer’s disease. Chapter Three reviews recent promising alternatives to protamine, which is currently used as a heparin antagonist but can cause dangerous side effects. Chapter Four describes the factors responsible for the development of diseases such as SARS, MERS, and Ebola. Finally, Chapter Five discusses the future applications of Drosophila melanogaster in neurobehavioral studies.

This edited volume contains seven chapters, each detailing recent advancements in medicine and biology. Chapter One presents an overview of drug-related problems in pediatrics. Chapter Two evaluates the role that Maytenus ilicifolia can play in the treatment of melanoma skin cancer. Chapter Three presents a review of biosensors for lipopolysaccharides and assays for studies of lipopolysaccharide binding interactions. Chapter Four presents a literature review of treatment options for carpal tunnel syndrome. Chapter Five describes the application of metabolomics, a science that quantifies and qualifies metabolites in an organism, in bio-medical research. Chapter Six presents the results of a systematic screening that was performed to identify macromolecules that are able to induce accumulation of ascitic fluid in rodents. Finally, Chapter Seven describes a study wherein the method of gravitational mass spectroscopy was used to study the long-range order in an ensemble of atomic nuclei clusters in chicken egg yolk before and after adsorption by beet sugar on the chromosomes.

This edited volume contains six chapters that each describe recent advancements in medicine and biology. Chapter One summarizes recent discoveries regarding the immunomodulatory effects of vitamin D3 on human health with an emphasis on the interplay of transcription factors and reviews the most recent recommendations based on new clinical evidence for vitamin D3 dosages for the prevention and treatment of COVID-19. Chapter Two focuses on idiopathic membranous nephropathy, the most common cause of nephrotic syndrome in adults who do not suffer from diabetes mellitus. Chapter Three details the emerging worldwide prevalence of myopathies, their evolving diagnostic parameters, and the newer therapeutic modalities. Chapter Four includes a review of medroxyprogesterone, which is a type of progestin that is used as a long-lasting injectable contraceptive and for the treatment of hormone-dependent tumors. Chapter Five describes synovial fluid, which lubricates and cushions joints during motion, and the effects of viscosupplements on the function of synovial fluid. Lastly, Chapter Six introduces the properties of dopamine acrylamide and discusses its application potential in detail.
Advances in Medicine and Biology. Volume 184
Leon V. Berhardt

In series: Advances in Medicine and Biology
Publication Date: 08/11/2021
293 pp.
Hardcover: 978-1-53619-936-9. $250.00
e-book: 978-1-53619-999-4. $250.00

This edited volume presents seven chapters detailing recent advancements in the fields of medicine and biology. Chapter One describes the regularities of abzyme production in patients with autoimmune diseases as well as in experimental mice. Chapter Two reviews the partners that assist polytopic membrane proteins in their way to acquiring their final structure. Chapter Three presents an approach for the development of an efficient biological sensor for the detection of biochemicals in large scales. Chapter Four shows the different flavin-based fluorescent proteins and fatty-acid-binding proteins and the advantages and disadvantages of using these anaerobic fluorescent proteins for real-time imaging in complex systems versus aerobic fluorescent proteins. Chapter Five discusses the main benefits of exercise for cirrhotic patients and current exercise prescription guidelines for this population. Chapter Six concerns the role thiamine deficiency plays in causing pediatric lactic acidosis. Finally, Chapter Seven discusses the mechanism of wound healing involving stem cells in IIla burns and proposes using the state of NC1 conformations as an objective indicator of epidermal restoration and the topology of solenoid chromosome construction as an indicator of dermis restoration.

Bioactive Nutraceuticals for Brain Disorders
Aman B. Upaganlawar (Department of Pharmacology, SNJBS SSDJ College of Pharmacy, Neminagar, Chandwad, India), Md. Sahab Uddin (Department of Pharmacy, Southeast University, Dhaka, Bangladesh) and Chandrashekhar D. Upasani (Department of Pharmacology, SNJBS SSDJ College of Pharmacy, Neminagar, Chandwad, India)

In series: New Developments in Medical Research
Publication Date: 05/14/2021
411 pp.
Hardcover: 978-1-53619-463-0. $230.00
e-book: 978-1-53619-608-5. $230.00

Over the past several years research concerning brain health and nutraceuticals has received much attention due to their potential neuroprotective properties and few or no side effects. Nutraceuticals exert copious effects in several biological processes, including antioxidant defenses, cell proliferation and differentiation, gene expression, signal transduction, and safeguarding of mitochondrial integrity. It is very likely that the brain health of an individual is affected by his or her dietary pattern. Intake of a well-nourished diet in the earliest stages of life builds a strong foundation of the brain which helps to maintain brain health in later stages of life. On the other hand, nutritional deficiency can disrupt the structure and function of the human nervous system and increases the risk of brain disorders and early death, affecting all age groups. Although nutraceuticals are popular for health, wellbeing, and illness, the efficacy of common supplements to combat brain disorders is not clearly understood. Bioactive Nutraceuticals for Brain Disorders aims to describe the importance of nutraceutical intervention on different brain disorders to highlight the therapeutic as well as preventive potential.

Building Children and Youth for the Future: Some International Aspects
Joav Merrick MD, MMMSci, DMSc, (National Institute of Child Health and Human Development, Jerusalem, Israel; Division of Pediatrics, Hadassah Hebrew University Medical Centers, Mt Scopus Campus, Jerusalem, Israel, Division of Adolescent Medicine, KY Children’s Hospital, Department of Pediatrics, Lexington, Kentucky, USA; School of Public Health, Georgia State University, Atlanta, Georgia, USA), Ariel Tenenbaum, MD (Director, Center for Children with Chronic Diseases and Down Syndrome Center Jerusalem, Division of Pediatrics, Hadassah Hebrew University Medical Center Mount Scopus Campus, Jerusalem, Israel) and Hatim A. Omar, MD
In this book we have brought together research from international clinicians, practitioners and researchers from various backgrounds and communities. Some of the papers were presented at the annual Stop Youth Suicide conference in Lexington, Kentucky in November 2019 and some at the Fifth International Conference on Child Health, Development and Welfare in Jerusalem, Israel during December 2019. The topics in this international potpourri of presentations are from a college experience program for people with intellectual disabilities in New York, migration from South Korea, which has emerged as one of the world's largest diaspora nations, discussions on abuse head trauma and adolescent suicide to risk factors for impaired early childhood development in rural India. We hope this collection of papers will be of interest to our international audience and hope you will find useful information from this research.

Chikungunya: Epidemiology, Transmission and Therapeutics

Phillip Galvan

In series: Tropical Diseases - Etiology, Pathogenesis and Treatments
Publication Date: 08/10/2021
115 pp.
Softcover: 978-1-53619-978-9, $82.00
e-book: 978-1-53619-987-1, $82.00

Chikungunya (CHIKV) is a viral infection spread by mosquitoes that can cause symptoms such as fever, joint pain, muscle pain, headache, fatigue, and rash, which can become severe. While symptoms generally subside within a week or two, the disease nonetheless imposes a burden on societies around the world and carries a death risk of 1 in 1,000 infections. Chapter One details the history and evolution of the virus, including its epidemiology and extensive spread, and discusses disease prevention and vector control measures. Chapter Two describes the geographical distribution, transmission, and alternative hosts of Chikungunya. Chapter Three provides an insight into the different immunotherapy and immunoprophylaxis strategies that have demonstrated promising results so far for the treatment of this disease. Lastly, Chapter Four provides an overview of the potential therapeutics that have been proposed and developed for CHIKV.

COVID-19 and the Rise of Telemedicine: Benefits and Challenges

Christina B. Willis

In series: Public Health in the 21st Century
Publication Date: 01/29/2021
118 pp.
Softcover: 978-1-53619-081-6, $82.00
e-book: 978-1-53619-201-8, $82.00

This book focuses on the benefits and challenges of telemedicine in the age of and when treating COVID-19. Telemedicine can be considered to play a major part in COVID-19 patients’ management, because it provides a quick and precise diagnosis that is obtained without unnecessary exposure of the medical personnel. The first chapter focuses on arrhythmias in COVID-19 patients. It is mandatory to assess whether arrhythmias in COVID-19 patients are preventable, treatable or permanent, or if they have long-term effects on the patient’s cardiovascular status. The second chapter examines the future of Internet healthcare on the foundation of a traditional model in the age of COVID-19. Next, the pros and cons of telemedicine, including the ways in which virtual telemedicine platforms rationalize and address the costs, accessibility, and quality of care that affect healthcare management are explored. The authors of the fourth chapter look at the legal ethical dilemmas related to the care of COVID-19 patients through telemedicine. And finally, the role of telemedicine in COVID times for neurologists and neurosurgeons in particular are explored in detail.
Emotionality of COVID-19. Now and After: The War Against a Virus
Maximiliano E. Korstanje (Senior Researcher, University of Palermo, Argentina; CERS, University of Leeds, Leeds UK) and Adrian Scribano (Senior Lecturer, CONICET- University of Buenos Aires, Argentina)

In series: Public Health in the 21st Century
Publication Date: 04/21/2021
234 pp.
Hardcover: 978-1-53619-534-7. $160.00
e-book: 978-1-53619-557-6. $160.00

Similarly to the attacks on the World Trade Center on September 11 of 2001, a foundational event that marked the turn of the century, the recent virus outbreak in Wuhan, China resonates heavily in the social imaginary of West. Both events have differences and of course commonalities. 9/11 epitomizes the struggle of Western civilization against an invisible enemy, terrorism, while now the target is a virus. Both emulate the doctrine of living with the enemy inside. Another commonality rests on the fact the same transport means that facilitate the state of emergency are paradoxically and at the same time mainly victims. Based on the invitation of well-renowned experts coming from four continents, the present book discusses critically the effects of COVID-19 as well as the global pandemic in society. To some extent, experts and colleagues of all pundits energetically emphasize the economic crisis of COVID-19 overlooking the durable effects in the societal background. This book intends to fill the gap giving a fresh insight which explains the role of social distancing and the lockdown in a new emerging society. Although chapters can be read separately, they are firmly grounded into a common argumentation, as the pandemic affirms not only the geopolitical tensions of what Scambler dubbed as a fractured society but also starts a feudalization process where the Spectacle of Death prevails.

Extracorporeal Membrane Oxygenation: Types, Medical Uses and Complications
Michael S. Firstenberg, MD (Director of Research and Special Projects, William Novick Global Cardiac Alliance, Cardiothoracic and Vascular Surgery, The Medical Center of Aurora, CO, USA)

In series: Medical Procedures, Testing and Technology
Publication Date: 01/20/2021
377 pp.
Hardcover: 978-1-53618-915-5. $230.00
Extra-corporeal membrane oxygenation (ECMO) is an innovative therapy that is used to support the physiologic needs of a patient during illnesses associated with acute severe respiratory and/or cardiac failure. ECMO is used in those life-threatening situations in which the oxygenation, ventilation, and circulatory support needs of the patient cannot be adequately maintained with a maximal conventional ventilator or pharmaceutical support. Essentially, ECMO is a simple pump circuit that can be used to support the role of failing lungs or hearts while therapies are aimed at organ recovery. While simple in concept and theory, this text illustrates the complexities associated with clinical use. The use of ECMO has evolved substantially overall the years–in part due to broader and growing applications, a better understanding of the technologies and how they can be used (especially in the context of long term human-ECMO circuit interactions), objective tools for patient selection, management protocols, and, most importantly, a growing body of evidence-based science and literature that demonstrates the effectiveness of this highly invasive, resource-intensive, and complex tool.

The goal of this text is to draw from established thought leaders and experts around the world and present a comprehensive review of the rapidly-evolving and expanding literature regarding the spectrum of applications for ECMO. While by no means is this implied to be the final and exhaustive text on this topic, it does aim to be as comprehensive and up-to-date as possible which is, in itself, a challenge given how quickly this field is evolving.

This text is aimed at students and providers, at all levels, who might have interest or be involved in the care of these critically ill patients. Chapters focus on how programs can be structured, the specific details of patient selection, management, and expanding roles of ECMO. Both basic and sophisticated concepts are presented with the goal that all may learn. We also present an objective assessment of some of the evolving challenges and limitations to ECMO in the context of the increased utilization and expansion of this therapy, combined with “sicker” patients, and the ongoing journey towards improved outcomes while offering a salvage therapy to patients who might otherwise die.
Immunizing the Human Body: The Role of Non-Descript and Traditional Edible Green Leaves

Dr. A.B. Sharangi (Professor and Former HOD, Plantation, Spices, Medicinal & Aromatic Crops, Faculty of Horticulture, BCKV-Agricultural University, Mohanpur, Nadia, WB, India), Dr. S. K. Acharya (Professor and Former HOD, Department of Agricultural Extension, BCKV-Agricultural University, Mohanpur, Nadia, WB, India) and Dr. Suddhasuchi Das (Plantation, Spices, Medicinal & Aromatic Crops, Faculty of Horticulture, BCKV-Agricultural University, Mohanpur, Nadia, WB, India)

In series: Health Care in Transition
Publication Date: 02/05/2021
251 pp.
Hardcover: 978-1-53619-136-3. $195.00
e-book: 978-1-53619-161-5. $195.00

The entire human civilization is now facing the disastrous impact of the pandemic. It seems to pose an apocalyptic consequence unless there is a vaccine in existence. Out of so many options, one option is creating immunity in the absence of a real vaccine. So immunizing human health and life can be and would be the most important option in combating COVID-19. Now the question is how to build up this hard immunity.

The present book takes into account accumulated facts, information and technology to describe green vegetables as a fresh source and booster of human immunity free from application of pernicious chemicals in the form of pesticides, fertilizers etc. The food should be strong enough to contribute to one's immunity. The authors hope that this book will create a long-lasting impact, away from the classical way of building immunity.

Mobile Health: Advances in Research and Applications

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In series: Health Care in Transition
Publication Date: 04/08/2021
330 pp.
e-book: 978-1-53619-468-5. $230.00
Hardcover: 978-1-53619-420-3. $230.00

Smart health technologies continue to gain research interest across the globe in this digital era. Researchers are focusing on advancements in healthcare systems to make human life better. Also, such advancements help in early disease diagnosis and prevention of the worst diseases. Designing smart healthcare systems is possible only because of recent developments in artificial intelligence, machine learning and IoT technologies. Though mHealth refers to all mobile devices which can communicate data, mobile phones are presently the most popular platform for mHealth delivery. Ninety-four percent of the world population owns/uses a mobile phone, making mobile phones an optimal delivery platform for mHealth interventions. mHealth may catalyse the healthcare delivery model from a historical/episodic model into a tangible/patient-centric model. mHealth is being viewed progressively by many as an essential technology metaphor to achieve rich, vigorous patient engagement, ultimately achieving a patient-centric paradigm change.

This book will discuss diverse topics to explain the rapidly emerging and evolving mobile health and artificial perspective, the emergence of integrated platforms and hosted third-party tools, and the development of decentralized applications for various research domains. It presents various applications that are helpful for research scholars and scientists who are working toward identifying and pinpointing the potential of as well as the hindrances to mHealth. The wide variety in topics it presents offers readers multiple perspectives on a variety of disciplines.

The aim of this edited book is to publish the latest research advancements in the convergence of automation technology, artificial intelligence, biomedical engineering and health informatics. This will help readers to grasp the extensive point of view and the essence of recent advances in this field. This book solicits contributions which include theory, case studies and computing paradigms pertaining to healthcare applications. The prospective audience would be researchers, professionals,
practitioners, and students from academia and industry who work in this field. We hope the chapters presented will inspire future research from both theoretical and practical viewpoints to spur further advances in the field. A brief introduction about each chapter follows.

Chapter 1 focuses on the role of Internet of Things (IoT) technologies in healthcare which provides an overview of the various types of IoT devices and data generating equipment for medical information.

In Chapter 2, the objective is to provide a brief discussion about the advantages and disadvantages of using IoT based technologies in healthcare such as wearable devices.

Chapter 3 deals with important aspects of data science for healthcare systems, which includes various algorithms for decision support system algorithms.

Chapter 4 discusses various innovative technologies like digital twins for healthcare and medical diagnosis.

Chapter 5 discusses research investigating the long-term effects of pregnancy and lactation on the female body.

Chapter 6 summarizes recent advances in machine and deep learning techniques for smart healthcare applications.

Chapter 7 explores the research insights on using an artificial neural network with a wrapper-based feature selection to predict heart failure.

Chapter 8 presents a review on context-aware mobile healthcare for smart health services in nursing homes.

Chapter 9 focuses on certain machine learning methods that can help in early prediction of pandemics.

Chapter 10 explores techniques and methods based on machine learning for malaria diagnosis.

Chapter 11 is a complete discussion about mobile health technology to improve health-related quality of life of chronic disease patients in emerging economies.

We are grateful to the authors and reviewers for their excellent contributions for making this book possible.

The Bible and Medicinal Plants: The Healing Power of Natural Medicines
Mohamad Hesam Shahrajabian (Biotechnology Research Institute, Chinese Academy of Agricultural Sciences, Beijing, China) and Ted Trandahl (Pastor, Christ for the Nations Institute, Dallas Texas, USA; The King’s University South Lake, Texas, USA)

In series: Natural Products and Therapeutics
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197 pp.
Hardcover: 978-1-53619-391-6, $160.00
e-book: 978-1-53619-431-9, $160.00

Religious books, especially the Bible, include many plants and herbs which have been used as traditional medicines for thousands of years. Aloe vera (John 19:39-40), Anise (Matthew 23:23), Balm (Ezeziel 27:17, Genesis 37:25, Genesis 43:11, Genesis 37:25, Jeremiah 8:22, Jeremiah 46:11, Jeremiah 51:8), Bitter herbs such as Coriander seed, Cilantro root, Wild lettuce, Wild endives (Exodus 2:8, Exodus 12:8), Cassia (Exodus 30:24, Ezekiel 27:19, Psalms 45:8), Cinnamon (Exodus 30:23), Cumin (Isaiah 28:25), Fig (Judges 9:10-11, Numbers 13:21-23, Numbers 20:5, Deuteronomy 8:7-9, 1 Samuel 30:11-12, Nehemiah 13:15, 1 Samuel 25:18, 2 Samuel 16:1, 1 Chronicles 12:40, 2 Kings 20:107, Genesis 3:6-7, Isaiah 38:21, and etc.), Flax (Leviticus 6:10), Frankincense (Matthew 2:10-11, Exodus 30:24), Garlic (Numbers 11:5-6), Hyssop (1 King 4:33, Psalm 51:7), Mandrake (Genesis 30:14, Song of Songs 7:13), Milk thistle (Genesis 3:18), Mint (Luke 11:41, Matthew 23:23), Mustard seed (Luke 17:6), Myrrh (Esther 2:12, Genesis 43:11, Proverbs 7:17), Nard (Song 1:12, Song 4:13, Song 4:14, Mark 14:3, John 12:3), Pistachio nuts and Almond (Genesis 43:11), Saffron (Song of Solomon 4:14), and Turmeric (Song of Solomon 4:14-15) are important medicinal plants which have been mentioned in the Bible. In recent years, the use of herbal medicines and their natural products has increased rapidly across the world. The aim of this manuscript is to review the notable health benefits and pharmaceutical advantages of medicinal plants and herbs which have been mentioned in the Bible.

The History of Extra-Corporeal Membrane Oxygenation (ECMO): From Start to COVID
Michael S. Firstenberg, MD (Director of Research and Special Projects, William Novick Global Cardiac Alliance, Cardiothoracic and Vascular Surgery, The Medical Center of Aurora, CO, USA)

In series: Medical Procedures, Testing and Technology
Publication Date: 01/05/2021
226 pp.
Hardcover: 978-1-53618-961-2, $160.00
e-book: 978-1-53619-040-3, $160.00

The history of extra-corporeal membrane oxygenation (ECMO) reflects a true medical success story that has been the result of tremendous dedication, perseverance, teamwork,
and years—if not decades—of hard work by countless providers, students, and advocates. This book, the final in a series of three on ECMO, traces the history of extra-corporeal support from the early years when therapy was offered as a last attempt at salvaging those patients who had lost almost all hope of survival, to the modern era and the role of ECMO in the contemporary management of critically ill patients, especially during the COVID-19 pandemic. The chapters illustrate how the technical aspects of ECMO have evolved, as well as the growing role of patient selection and team-based management. Although the role of ECMO for COVID-19 is still evolving, the chapters addressing this topic can serve as a foundation for the many complex systematic issues, beyond just the bedside care of ECMO patients, that must be acknowledged.

Jorge Agustín Nicolás Ruiz de Santayana y Borriá, also known as George Santayana, has been credited with the quote: “Those who cannot remember the past are condemned to repeat it,” [George Santayana (1905) Reason in Common Sense, p. 284, volume 1 of The Life of Reason] a concept that clearly resonates with those involved in ECMO program development, patient selection and management. As such, the primary goal of this text is to help scholars of all levels better understand where we have been and where we are going.
The book is aimed at undergraduate and graduate students in the area of health, as well as at health professionals interested in using such models or theories related to human sexuality in different age groups.

**SURGERY AND SURGICAL SPECIALTIES**

**Craniospinal Vascular Diseases and Endovascular Neurosurgery**  
Xianli Lv MD (Neurosurgery Department, Beijing Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing, China), Guihuai Wang MD (Neurosurgery Department, Beijing Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing, China) and James Wang MD (Neurosurgery Department, Beijing Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing, China)

In series: Neurosurgery Research Progress  
Publication Date: 03/24/2021  
496 pp.  
Hardcover: 978-1-53619-342-8. $310.00  
e-book: 978-1-53619-357-2. $310.00

Endovascular neurosurgery is now the most commonly practiced therapeutic approach for most vascular lesions involving the brain and spinal cord. At the beginning, balloons were the only available technique; later coils, embolic agents, and stents are introduced. With the expansion of endovascular devices and techniques, the treatment strategies for cerebrospinal vascular diseases have been refined. Neurosurgeons must have the mindset to embrace and nurture progress and technological advances. The pioneers of endovascular neurosurgery considered the impossible and tenaciously stood by their dreams. Their revolutionary ideas and inventions truly reflected their courage, faith, and determination. The shift away from open surgical approaches has had far-reaching implications for how we train neurosurgical residents and fellows and how we certify these individuals once their training is completed. With the maturity of endovascular neurosurgery technology, we need to give the resident and fellow training for neurovascular surgery. This book describes the endovascular diagnosis and treatment of vascular lesions involving the brain and spinal cord using catheters in the DSA (digital subtraction angiography) unite. The field of endovascular neurosurgery has resulted in effective endovascular therapies for carotid-cavernous fistulas (CCFs), intracranial aneurysms, arteriovenous malformations (AVMs), dural arteriovenous fistulas, atherosclerosis of cerebral arteries, acute stroke, carotid artery disease, and vascular tumors of the head, neck, and spinal vascular malformations and tumors. The scope of practice of neurovascular endovascular surgery has become complex, requiring training in specific skill sets and techniques. The evolution of the neuroendovascular field has resulted in the development of program requirements for residency or fellowship education in endovascular neurosurgery.

**Enhanced Recovery After Surgery: Perspectives, Protocols and Efficacy**  
Stan Waechter

In series: Surgery - Procedures, Complications, and Results  
Publication Date: 06/21/2021  
125 pp.  
Softcover: 978-1-53619-548-4. $82.00  
e-book: 978-1-53619-604-7. $82.00

This book brings to light the latest research on enhanced-recovery after surgery or ERAS. The chapters focus on ERAS in head and neck surgery, protocols in thoracic surgery, the impact of perioperative immunonutrition on complications in patients undergoing radical cystectomy and ERAS in gynecological surgery.
Peritonitis: Causes, Diagnosis and Treatment
David F. Walker
In series: Emergency and Intensive Care Medicine
Publication Date: 06/10/2021
107 pp.
Softcover: 978-1-53619-624-5. $82.00
e-book: 978-1-53619-641-2. $82.00
This book contains three chapters about peritonitis, which is an inflammation of the membrane lining the abdominal wall and covering the abdominal organs. Chapter One presents classification of postoperative peritonitis, describes symptoms, reviews the current understanding of the phases and stages of development and features of the disease, and discusses the usefulness of different prognostic scales for assessment of complicated intra-abdominal infections. Chapter Two studies assisted peritoneal dialysis, wherein a nurse goes to the patient’s home to perform the dialysis technique when the patient is unable to do it himself. Chapter Three discusses in detail different types of peritoneum infections, including their principles of diagnosis and treatment options.

Surgeon’s Perspective on Dialysis Patient
Maria Frankovicova (University Pavol Jozef Safarik, Professor of Surgery; Chief of Department of Vascular Surgery, East Slovak Institute of Cardiovascular Diseases, Medical Faculty of Safarik University, Kosice, Slovakia)
In series: Surgery - Procedures, Complications, and Results
Publication Date: 04/08/2021
357 pp.
Hardcover: 978-1-53619-262-9. $230.00
e-book: 978-1-53619-314-5. $230.00
Every year a large number of chronic patients undergo dialysis at dialysis departments in the Slovak Republic. Each one of them is connected to the artificial kidney 100 to 160 times. The most valuable property of these patients is a quality and long-term functioning arteriovenous fistula since it is one of the essential conditions for successful dialysis. The surgeon who creates arteriovenous access must thoroughly examine the patient before the operation, properly evaluate the vascular system and choose the most favorable way of the vascular access for long-term hemodialysis. Patients with chronic renal failure have impaired hemostasis, several of them have diabetes and their vascular system is affected by atherosclerosis. Determination of the operational plan and optimal vascular access is strictly individual and depends not only on the vascular system of the patient but also on the general condition, age and prognosis of the disease. A quality arteriovenous fistula should conform to the requirements of the simplest and the shortest operation as possible, using local anesthesia. Underestimation of any fact can result in the creation of many non-functional AV fistulas. AV fistulas operations for the purpose of long-term hemodialysis are an integral part and one of the most problematic issues of Vascular Surgery. There are more and more patients who are in the long-term hemodialysis program. The average age of patients is increasing. All these factors have resulted in the need to create more and more AV fistulas because their usability is limited. The correct operational tactics, individual approach to the patient and precise surgical technique of the vascular surgeon contributes to the improvement of the quality of life of sick patients, of whom only a small percentage is so lucky that the disease is cured by successful kidney transplantation.

What’s New in Hip Arthroscopy
Alessandro Aprato, M.D.(Orthopaedic Surgeon, University of Turin, Turin, Italy)
In series: Orthopedic Research and Therapy
Publication Date: 03/17/2021
241 pp.
Hardcover: 978-1-53619-321-3. $160.00
e-book: 978-1-53619-397-8. $160.00
Hip arthroscopy has seen significant developments in the last 25 years. Until a decade ago, it was considered an emerging surgical technique, but today it is an established and effective treatment for various hip pathologies. The development of hip arthroscopy is strictly linked with the evolution of the concept of femoracetabular impingement. The description of this new pathology and the open surgical treatment described by Professor Ganz were actually the basis for the development of hip arthroscopy.
Femoroacetabular impingement is, nowadays, the main indication for hip arthroscopy. Femoroacetabular syndrome should be regarded as a triad of symptoms, clinical signs and imaging findings. The goal of the treatment, in these cases, should not be simple anatomic correction but to obtain a hip without impingement in the normal range of motion. In addition, labrum, cartilage, capsule and soft tissues should be evaluated and lesions should be treated. In particular, the role of the labrum has been investigated during the last several years and several techniques for labral repair and labral reconstruction have been developed.

Despite the progress in diagnosis and treatment of several hip pathologies, the exact indications of hip arthroscopy are still debated. Defining the limits for arthroscopic treatment in cases of advanced osteoarthritis, bone deformity and periarticular soft tissues pathologies is one of the goals of current investigations concerning hip arthroscopy. This book is intended as a guide to the innovation and development in hip arthroscopy over the last 10 years ranging from an update of the surgical indications to rehabilitation after hip arthroscopy. In every chapter, an expert in hip arthroscopy discusses a specific subject focusing on latest trends and surgical techniques. Attention is focused especially on surgical indications, patient positioning and approaches, labral and capsular management, ischiofemoral impingement management, extra-articular pathologies, trauma and finally post-operative rehabilitation.

**VETERINARY**

**Combating Canine Cancers with Phytochemicals**  
*Katrin Sak, PhD (Head of the NGO Praeventio, Tartu, Estonia)*

In series: *Veterinary Science and Medicine*  
Publication Date: 06/21/2021  
141 pp.  
Softcover: 978-1-53619-716-7. $95.00  
e-book: 978-1-53619-809-6. $95.00

Cancer is a serious and ever-growing health concern not only in humans but also in dogs. Considering the differences in average lifespans, people commonly experience the loss of their companion dogs, representing a traumatic event to pet owners. On the one hand, better nutrition and improved care with many recent advancements in veterinary medicine have allowed dogs to live longer. On the other hand, this has involved an increased prevalence of aging-related diseases, including different types of malignancies. In fact, cancer afflicts one in every three dogs, being the most common cause of canine death. Hence, dogs with cancer require treatment, but differently from the human oncology, there are only few established standards of care for clinical management of canine tumors, besides the lack of effective drugs. Research into identification of novel efficient anticancer compounds and development of new therapeutic options are therefore highly needed to help man’s best friend in combating malignant neoplasms.

Over the past few decades, researchers have paid attention to the health benefits of various plant secondary metabolites, leading to the development of several new drugs for human medicine. Proceeding from this success, in this book, the current knowledge about anticancer effects of plant-derived compounds in different canine cancer models is compiled, discussing the role of phytochemicals in vitro canine cancer cell lines, in vivo xenografted mice, and in tumor-bearing dogs. Although still limited, these data reveal a great potential of plant compounds in reducing proliferation and inducing death of cells derived from different types of canine tumors, allowing these natural substances to be considered as promising anticancer drug candidates for dogs. This approach can not only result in the development of more efficient therapeutic agents for canine oncology in the future, but also provide new possibilities for chemopreventive strategies. Finally, considering the high biological, histological, and clinical similarities between canine and human tumors, knowledge on bioactivities of specific phytochemicals in cancer-bearing dogs can ultimately benefit both species, accelerating drug development paths for humans and promoting general advancement of oncological discipline.

**WOMEN’S HEALTH**

**A Look at Maternal Health and Reproductive Rights**  
*Lisa R. Flores*

In series: *Women’s Issues*  
Publication Date: 07/22/2021  
348 pp.  
Hardcover: 978-1-53619-760-0. $230.00  
e-book: 978-1-53619-832-4. $230.00
The United States is the most dangerous place in the developed world to deliver a baby. Each year, about 700 American women die and 50,000 women are severely injured due to complications related to childbirth. If you are a Black woman in the United States, it is even more dangerous to give birth. Chapter 1 reports on ways to save mothers’ lives. Chapters 2 and 3 examine how state and federal policies are impacting residents’ access to comprehensive reproductive healthcare services, including abortion.

**Eclampsia: Prevalence, Risk Factors and Complications**

*Sharon Wright*

In series: *Pregnancy and Infants: Medical, Psychological and Social Issues*

Publication Date: 05/10/2021

134 pp.

Softcover: 978-1-53619-574-3. $82.00

e-book: 978-1-53619-674-0. $82.00

This book is composed of three chapters about eclampsia, which is a condition involving seizures that occur during a woman’s pregnancy or shortly after giving birth. Chapter One analyses the clinical profile, neurological manifestations, imaging features, prognosis and risk factors which can predict neurological complications in eclampsia patients. Chapter Two describes the discovery of phosphoester steroid conjugates and proposes a role for them in pre-eclampsia. Chapter Three discusses postpartum eclampsia and describes which medications should be used for management of symptoms in patients who show signs of pre-eclampsia.

**The Thin Pink Line: Regulating Reproduction**

*Carol Lynn Curchoe Burton, PhD* (Newport Beach, CA, USA)

In series: *Obstetrics and Gynecology Advances*

Publication Date: 02/15/2021

140 pp.

Softcover: 978-1-53619-150-9. $95.00

e-book: 978-1-53619-191-2. $95.00

The Thin Pink Line: Regulating Reproduction is a critical exploration of historical perspectives to modern controversial topics in gynecology; from birth control to sterilization, to episiotomies and the “husband stitch,” to “educational” pelvic exams, shackling laboring convicts, gender affirming surgery, human embryo research, assisted reproduction and much more. This book poses questions for us to consider about the current and future reproductive ethical decisions. Does reproductive health need more or less regulation? Who should be deciding? The Thin Pink Line: Regulating Reproduction is a brave and honest look at where we have been, so we can figure out where we want to go. The Thin Pink Line: Regulating Reproduction is intended to educate a wide audience of womynx, men, femmes, gender non-conforming folks, uterus owners, and everyone in between. It has a specific intersectional focus on the impact that the current reproductive regulatory framework has on disenfranchised groups, such as people of color, LQBTQ individuals, and the lower socioeconomic strata.

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**UPCOMING PUBLICATIONS**

**Geriatrics**

Social and Health Issues among Older Adults in India

*Supa Pengpid, MPH, DrPH, MBA (Professor at ASEAN Institute for Health Development, Mahidol University Thailand), Karl Peltzer, MA Clin Psych, PhD, Dr Habil (Department of Research Administration and Development, University of Limpopo, South Africa) and Joav Merrick, MD, MMedSci, DMSc (Professor of Pediatrics at the Division of Pediatrics, Hadassah Hebrew University Medical Center, Mt Scopus Campus, Jerusalem, Israel, Kentucky Children’s Hospital, University of Kentucky, Lexington, United States and Professor of Public Health at the Center for Healthy Development, School of Public Health, Georgia State University, Atlanta, United States, the Former Medical Director of the Division for Intellectual and Developmental**
Disabilities, Ministry of Social Affairs and Social Services, Jerusalem and the Founder and Director of the National Institute of Child Health and Human Development in Israel)

In series: Health and Human Development

Expected Publication Date: 09/15/2021

374 pp.
Hardcover: 978-1-53619-937-6. $230.00
e-book: 978-1-60876-522-5. $230.00

With longevity and declining fertility rates, the population of older persons (60 years and above) is globally growing faster than the general population. The percentage of the elderly in India for example has been growing at an increasing rate in recent years and the trend is likely to continue in the coming decades. The share of population over the age of 60 years is projected to increase from 8 percent in 2015 to 19 percent in 2050. By the end of the century, the elderly will constitute nearly 34 percent of the total population in the country. In this book we aimed to identify trajectories of health and their associations with lifestyle factors in a nationally representative cohort study of middle-aged and older Indians. We discuss self-rated health status, age discrimination, major injuries, recurrent falls, perceived everyday discrimination, elder abuse, hypertension, diabetes, angina pectoris, stroke, arthrits, back pain or problems, oral health problems, cataract, edentulism, hearing loss, tobacco use, alcohol use, loneliness, health care discrimination, weight discrimination, religiosity and well-being. We hope that the findings may aid public policy and programmes for middle-aged and older adults in India.

Advances in Health and Disease. Volume 42

Lowell T. Duncan

In series: Advances in Health and Disease

Expected Publication Date: 08/20/2021

260 pp.
Hardcover: 978-1-68507-010-6. $250.00
e-book: 978-1-68507-046-5. $250.00

This edited volume includes seven chapters, each of which details a recent scientific advancement in health and disease. Chapter One describes polycystic ovary syndrome (PCOS) and elaborates various treatment, therapeutic, and management strategies for PCOS which may help in relieving its economic and social burden. Chapter Two addresses the ethical problems of the use of human fetal cell cultures in the manufacture of vaccines as well as other ethical dilemmas associated with vaccines. Chapter Three reviews fundamental aspects of imaging in the diagnosis of pneumomediastinum, including the normal mediastinal anatomy and relevant variants in plain radiography and computed tomography. Chapter Four summarizes current literature involving fasted exercise and health benefits and discusses the proposed mechanisms, aiming to determine fasted aerobic exercise applicability as a health-promoting strategy. Chapter Five examines the role that aerobic exercise plays in osteoporosis prevention and management, and how different exercise modalities contribute to bone health. Chapter Six reviews the main features of spontaneous pneumomediastinum, both in its asymptomatic and emergent forms, with focus on clinical signs and symptoms, natural course and the differential diagnosis. Lastly, Chapter Seven covers the current strategies for the management of gestational diabetes mellitus.

Advances in Health and Disease. Volume 43

Lowell T. Duncan

In series: Advances in Health and Disease

Expected Publication Date: 10/20/2021

249 pp.
Hardcover: 978-1-68507-013-7. $250.00
e-book: 978-1-68507-050-2. $250.00

This edited volume includes six chapters detailing recent advancements in health and disease. Chapter One describes the set-up and characteristics of various endoscopic submucosal dissection devices. Chapter Two explains neural plasticity, or the brain’s ability to rewire itself, and how it relates to the treatment and progression of various neurological conditions. Chapter Three discusses a range of medical interventions where progesterone has been found useful, highlighting its exceptional role in supporting pregnancy to full term. Chapter Four details the characteristics, classification, pharmacokinetics, drug interaction, clinical uses and adverse effects of anticoagulants. Chapter Five analyzes how emergency medical services responded to the global pandemic of 2020. Lastly, Chapter Six summarizes published results on the influence of low birth weight, prematurity, and nutritional status during childhood on the tooth eruption of deciduous and permanent teeth.
Infectious Disease and Microbiology

Antimicrobial Peptides: Function, Mechanisms of Action and Role in Health and Disease
Paresh Chandra Ray (Professor of Chemistry, Physics and Atmospheric Sciences, Jackson State University, Jackson, MS, USA)
In series: Microbiology Research Advances
Expected Publication Date: 09/30/2021
248 pp.
Hardcover: 978-1-68507-005-2. $160.00
e-book: 978-1-68507-082-3. $160.00
The increasing prevalence of antibiotic-resistant bacteria, known as superbugs, has threatened the field of infectious disease medicine over most of the past century. Antimicrobial peptides, a crucial part of innate immunity that exists in most living organisms, have become a central pillar for the next generation of medical challenges for infectious diseases, cancer, and other health problems. The development of new antimicrobial peptides to tackle ongoing superbug infections, cancer and other diseases is a fast-growing research area for chemistry, medical physics, biological science, food and agricultural science and different disciplines of medicine. This volume discusses the basic science behind potential pharmacological agents, which is necessary to understand how these peptides can be used in our daily lives. The book provides a foundation for a wide variety of antimicrobial peptide-based therapeutic approaches, which is invaluable for established scientists, junior researchers, and students involved in basic science, material science, the medical field and different disciplines of engineering. It contains nine chapters written by world leaders in this area, covering basic science and possible therapeutic applications with immense societal implications. Antimicrobial peptides are an exciting new therapeutic agent with promising applications for a wide variety of illnesses.

COVID-19 by Cases: A Pandemic Review
Sujanthy S. Rajaram, Anthony Longo and Nicole Burak
In series: New Developments in Medical Research
Expected Publication Date: 10/25/2021
442 pp.
Hardcover: 978-1-68507-099-1
A clinical account written by front-line providers, COVID-19 by Cases is the first comprehensive review text on COVID-19. As such, the inventive format features a case-based and systems-based review of observations, clinical knowledge, basic science, ethics, and personal experiences during the COVID-19 pandemic. With each systems-based chapter encompassing a case report, literature review, and discussion, COVID-19 by Cases is intended for a broad audience, including clinical providers, clinical educators, and students. It also serves as a standalone account to preserve this unique time in human history. COVID-19 by Cases is a multi-institutional effort with input from hospitalists, outpatient physicians, specialists, residents, nurses, pharmacists, clinical educators, and students.

Impacts and Implications of COVID-19: An Analytical and Empirical Study
Dr. Anand Sharma, Dr. Prateek Agrawal, Ms. Vishu Madaan and Mr. Anuj Agarwal
In series: Infectious Diseases and Microbiology
Expected Publication Date: 09/30/2021
Hardcover: 978-1-53619-670-2. $160.00
e-book: 978-1-68507-081-6. $160.00
Impacts and Implications of COVID-19: An Analytical and Empirical Study describes the most recent research developments regarding COVID-19. This book includes a wide range of interdisciplinary submissions that address the latest findings regarding a wide variety of psychological, social, managerial, and technological issues for fighting COVID-19.
Chapter One discusses how machine learning applies to prediction, forecasting, screening, contact tracing, treatment, medication and the drug or vaccine invention process in connection with COVID-19. Chapter Two deals with immunomodulatory therapy for clinical management of COVID-19 patients. Chapter Three describes the importance of social distancing and the development of a tool to detect social distancing. Chapter Four discusses the impact of COVID-19 on the education sector, and Chapter Five focuses on the impacts of COVID-19 on employment, e-commerce, and e-pharmacies.
Chapter Six gives an insight into the policies regarding COVID-19 in India, and Chapter Seven compares vaccine candidates based on their status in trial phases, route of administration, dosage, efficacy, and safety. Chapter Eight explores how the pandemic has impacted human communication and relationships, as people have been forced to interact in the digital space rather than the physical one. Chapter Nine describes the urgent need to devise sustainable and effective strategies to mitigate the problems relating to shortages of labor and equipment in the agricultural sector due to the pandemic. Finally, Chapter Ten describes the role of physical therapy in the recovery of COVID-19 patients.
Nephrology and Urology

Issues in Kidney Disease – Acute Kidney Injury
Stephen Z. Fadem and Ahmed Arslan Yousuf Awan

In series: Issues in Kidney Disease
Expected Publication Date: 09/30/2021
Hardcover: 978-1-68507-002-1. $145.00
e-book: 978-1-68507-125-7. $145.00

Issues in Kidney Disease–Acute Kidney Injury is a collection of nineteen independent chapters written by internationally renowned authors, covering a wide range of topics, including the basic concepts and management of acute kidney injury (AKI), contrast induced nephropathy, acute tubular necrosis, interstitial nephritis, glomerulonephritis, obstructive uropathy, COVID-19, cardiorenal and hepatorenal syndrome. This book also addresses kidney injury in specialized populations like pregnant patients and patients with kidney transplant. A whole chapter is also dedicated to imaging in patients with kidney injury.

This book will appeal to renal fellows, nephrologists, and practicing physicians involved in the care of AKI patients in critical care units and medical floors, including all those interested in the advances and innovations undergoing in this field. It brings timely and updated reviews and addresses trends, challenges, and controversies of kidney injury.

Issues in Kidney Disease – Chronic Kidney Disease
Stephen Z. Fadem and Samaya Javed Anumudu

In series: Issues in Kidney Disease
Expected Publication Date: 09/30/2021
Hardcover: 978-1-68507-001-4. $145.00
e-book: 978-1-68507-124-0. $145.00

Issues in Kidney Disease – Chronic Kidney Disease (CKD) is a collection of 17 detailed chapters written by world leaders and experts in nephrology in order to provide a comprehensive review of kidney disease using evidence-based recommendations and guidelines. This book starts with an excellent introduction and classification of CKD and progresses into various important aspects of CKD care including prevention, diabetes, hypertension, acid-base disturbances, genetic and age considerations, glomerulonephritis, interstitial nephritis, aging, as well as considerations for patients in pregnancy and with malignancy.

This book will appeal to trainees and practicing clinicians in internal and family medicine, as well as nephrology, who would like current and practical clinical knowledge of chronic kidney disease to help improve the lives of patients with this condition.

Issues in Kidney Disease – Dialysis
Stephen Z. Fadem and José A. Moura-Neto

In series: Issues in Kidney Disease
Expected Publication Date: 09/30/2021
Hardcover: 978-1-68507-000-7. $145.00
e-book: 978-1-68507-123-3. $145.00

Issues in Kidney Disease – Dialysis is a collection of nineteen independent chapters written by internationally renowned authors, covering a wide range of topics, from the history and milestones to the future, in different renal replacement therapy modalities, such as hemodialysis, online hemodiafiltration, and peritoneal dialysis. This book will appeal to renal fellows, nephrologists, and physicians involved with chronic kidney disease patients on maintenance dialysis, including all those interested in the advances and challenges still facing medicine. It brings timely and updated reviews and addresses trends, challenges, and controversies of dialysis therapies.

Neuroscience

Horizons in Neuroscience Research. Volume 44
Andres Costa and Eugenio Villalba

In series: Horizons in Neuroscience Research
Expected Publication Date: 09/30/2021
254 pp.
Hardcover: 978-1-68507-072-4. $250.00
e-book: 978-1-68507-085-4. $250.00

This edited volume includes seven chapters, each detailing recent advancements in the field of neuroscience. Chapter One evaluates the role of several factors, including health system barriers, cultural beliefs and knowledge of Alzheimer’s disease in predicting help-seeking intentions for early symptoms of Alzheimer’s disease among American Indians and Alaska Natives. Chapter Two examines the utility of transcranial magnetic stimulation to support and predict the clinical
diagnosis of the most common neurodegenerative dementias. Chapter Three discusses the results of migraine-candidate gene association studies conducted in the last three decades. Chapter Four reviews the history, types, indications, benefits, and complications of telemetric intracranial pressure monitoring. Chapter Five reviews the current concepts on pathophysiologic mechanisms involved in the development of neurogenic pulmonary edema and discusses the associated clinical and therapeutic aspects. Chapter Six follows the evolution of the dopamine receptor blocking agent medication class and the consequential changes in our knowledge of dopamine’s role in psychotic disorders. Finally, Chapter Seven describes patient selection criteria, diagnostic work-up, medical management and surgical techniques for patients with recurrent strokes secondary to steno-occlusive cerebrovascular disease.

### Nutrition and Diet

**Spirulina and its Health Benefits**

*Jaylee Cochran*

In series: *Nutrition and Diet Research Progress*

Expected Publication Date: 09/30/2021

- 201 pp.
- Softcover: 978-1-68507-018-2. $95.00
- e-book: 978-1-68507-084-7. $95.00

This monograph includes five chapters describing spirulina, a biomass of cyanobacteria with strong antioxidant effects and various other health benefits. Chapter One addresses the boosting effect on the immune system by spirulina, exploring its antiviral activity and respective mechanisms. Chapter Two evaluates the neuroprotective effect of spirulina and its aqueous extract in two models of fetal alcohol syndrome in mice. Chapter Three reviews biomolecules of industrial interest with health benefits that can be extracted from spirulina biomass and describes the factors that influence their synthesis as well as their application in food and pharmaceutical industries. Chapter Four provides a broad overview of the various health benefits of spirulina. Finally, Chapter Five describes the beneficial effects of spirulina on conditions including obesity, cardiometabolic disturbances, and immunitory processes.

### Oncology

**Burkitt Lymphoma: Diagnosis, Risk Factors and Treatment**

*Douglas V. Berthelot*

In series: *Cancer Etiology, Diagnosis and Treatments*

Expected Publication Date: 09/30/2021

- 271 pp.
- Hardcover: 978-1-68507-071-7. $195.00
- e-book: 978-1-68507-083-0. $195.00

Burkitt lymphoma (BL) is a form of non-Hodgkin’s lymphoma in which cancer starts in immune cells called B-cells. If left untreated, it is rapidly fatal. Chapter One of this monograph evaluates the etiology, pathological issues, diagnosis, clinical manifestations, epidemiology, research, innovation and treatment issues of BL using the clinical systematic review research method and experts’ opinion analysis approach. Chapter Two reviews the spectrum, unique characteristics and special management considerations when BL develops in specific subgroups of patients with primary immune deficiency disorders. Chapter Three reviews the incidence, clinicopathological and epidemiologic features, treatment and outcome data available in pediatric and adult patients with post solid organ transplant BL. Chapter Four focuses on the pathobiology and the treatment of first-line and relapsed/refractory cases of BL and describes new therapeutic strategies which could improve results in this pathology. Chapter Five examines the therapeutic advances in BL and its variants. Finally, Chapter Six explores and emphasizes the trends and issues in research and innovation in the characteristics, clinical updates and management approaches of BL.

### Ophthalmology

**Keep It Single and Simple – Binocular Vision Testing Made Easy**

*Dr. Jameel Rizwana Hussaindeen and Dr. Mitchell Scheiman*

In series: *Eye and Vision Research Developments*

Expected Publication Date: 09/30/2021

- Hardcover: 978-1-53619-941-3. $230.00
- e-book: 978-1-68507-111-0. $230.00
Pain Management

Antinociceptive Tolerance to NSAIDs in Brain Limbic Areas: Role of Endogenous Opioid and Cannabinoid Systems

Natia Tsagareli, PhD (Laboratory of Pain and Analgesia, Ivane Beritashvili Center for Experimental Biomedicine, Tbilisi, Georgia), Nana Tsiklauri, PhD (Laboratory of Pain and Analgesia, Ivane Beritashvili Center for Experimental Biomedicine, Tbilisi, Georgia) and Merab G. Tsagareli, DSc, PhD (Laboratory of Pain and Analgesia, Ivane Beritashvili Center for Experimental Biomedicine, Tbilisi, Georgia)

In series: Pain Management - Research and Technology
Expected Publication Date: 08/20/2021
158 pp.
Softcover: 978-1-53619-814-0. $95.00
e-book: 978-1-53619-881-2. $95.00

The development of pain as a common experience and its treatment is very important, not only where it is caused by injury or inflammation, but also in chronic states where the nerves themselves are damaged. Even though we already know from physiological studies that special pain receptors or nociceptors are responsible for conducting pain sensations to the brain, the phenomenon of pain remains a medical and social problem. Pain relief or analgesia can be achieved using several different approaches and strategies.

Non-steroidal anti-inflammatory drugs are the most widely used analgesics. They have analgesic, antipyretic, and, at higher doses, anti-inflammatory actions. However, a few recent studies have demonstrated that in the case of their prolonged use, these non-opioid drugs elicit the opioid-like effect of tolerance, which alongside drug withdrawal syndrome may entail serious adverse effects.

This book provides up-to-date review information and experimental findings concerning antinociceptive tolerance to NSAIDs. The first three chapters after the introduction are devoted to literature reviews on brain limbic areas, opioid and cannabinoid systems, and non-opioid antinociceptive tolerance. Chapters Five, Six and Seven describe research data on antinociceptive tolerance to NSAIDs and opioid and cannabinoid mechanisms of attenuation of nociceptive hyperalgesia in the cingulate cortex, insular cortex, and central amygdala. Chapters Eight, Nine and Ten include discussion, summary and conclusions, as well as a detailed description of experimental materials and methods.

Psychiatry

Addiction and Substance Abuse

Effective Use of Creative Writing in the Treatment of Addiction to Chemical Substances

Eric A. Kreuter, PhD

In series: Alcohol and Drug Abuse
Expected Publication Date: 08/20/2021
536 pp.
Hardcover: 978-1-53619-946-8. $310.00
e-book: 978-1-68507-036-6. $310.00

It has long been established that addiction or SUD – Substance Use Disorder – ruins lives and leads to illness, destruction of families, and death. Chasing the “high” often brings the user closer to death each time the use is increased even though the person may choose to ignore the risk. Effective treatment is essential to help recovering addicts change their lives and become productive citizens, leading happy lives in perpetual sobriety. Helping them adjust their focus from shame and guilt to improved self-esteem and renewed sense of purpose in life is essential for avoiding prolonged substance abuse.

In addition to traditional approaches, the use of creative writing as a treatment modality can help the addicted person obtain and deploy the tools necessary to remain sober. In this way, creative writing can help actualize the whole person. Inviting people with addictions to share their creative writing with the world helps them to connect their experiences, observations, and recommendations to others.

This book is a collaborative effort between research, facilitation, and contributions of the creative men at St. Christopher’s Inn. Adding to the variety and depth of the creative productions is the incorporation of post-program writing from men who have completed the program at St. Christopher’s and have remained connected in this special endeavor. This allows a window into the minds of the longer-term recovering addicts, especially relating to the tools that help them through life’s persistent challenges. With this book, we hope to show that writing does help in the treatment of chemical addiction.
**Special Topics**

**Advances in Medicine and Biology. Volume 185**

*Leon V. Berhardt*

In series: *Advances in Medicine and Biology*

Expected Publication Date: 10/20/2021

233 pp.

Hardcover: 978-1-68507-021-2. $250.00
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This monograph consists of six chapters, each describing recent advancements in medicine and biology. Chapter One details the use of radiology as an imaging method in diagnosis and risk-assessment of osteoporosis. Chapter Two describes research that aims to better understand the mechanisms involved in the onset of extrapyramidal side effects following treatment with antipsychotics. Chapter Three deals with issues related to endoscopic submucosal dissection (ESD), including diagnosis, endoknives, procedure, traction method, management of complications, and more. Chapter Four discusses ESD in the context of colorectal neoplasia. Chapter Five discusses estrogen receptor mutations that have been described in the ligand binding domain as well as the proposed treatments for patients with breast cancer ESR1 mutant-bearing tumors. Finally, Chapter Six discusses the role of estradiol in the regulation of the immune response of the host during parasitic infections and how estradiol affects parasite physiology.

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This edited monograph contains five chapters that present advancements in the fields of medicine and biology. Chapter One provides a comprehensive review of the biological specimens used to monitor antipsychotic drugs as well as the analytical methods and sample preparation techniques used for their determination. Chapter Two focuses on estradiol and how it regulates the biology of innate and adaptive immune cell subpopulations, and how it may contribute to the resolution, exacerbation, or treatment for colorectal cancer. Chapter Three discusses the involvement of vitamin A in different areas such as embryonic development, development of the nervous system, and diseases. Chapter Four discusses environmentally friendly methods for the production of bismuth nitrate solutions and conditions for the hydrolytic purification of bismuth from the main metal impurities, specifies the compositions of the compounds used in medicine, and gives the production conditions for high purity bismuth compounds and the data on their toxicity. Finally, Chapter Five describes the use of gravitational mass spectroscopy to study the evolution of muscles.

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Expected Publication Date: 09/30/2021

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This edited monograph includes eight chapters, each discussing recent advancements in the fields of medicine and biology. Chapter One provides information on the mechanisms of polyurethane degradation. Chapter Two reviews the inhibitory effect of chlorogenic acid on metabolic syndrome-related vascular endothelial cell damage, type 2 diabetes, hypertension, and dyslipidemia. Chapter Three investigates the development of fatigue of rat skeletal muscle under the action of water-soluble pristine C60 fullerenes as powerful antioxidants. Chapter Four discusses advances in the generation of immune cells from pluripotent stem cells and the potential of chimeric antigen receptor cells in cancer treatment. Chapter Five describes the targeted delivery of immunosuppressants. Chapter Six focuses on the in vitro degradation of biopolymers using enzymes and microorganisms. Chapter Seven reviews the risk factors for hearing loss in infants admitted to the neonatal intensive care unit and the management of such patients detected with hearing loss. Finally, Chapter Eight describes recently developed methods and tools used in physiological studies of human sensory neurons induced from human pluripotent stem cells.
Enhanced Recovery after Surgery (ERAS) in Bariatric Surgery
Jaime Ruiz-Tovar, MD, PhD (Professor of Surgery, Universidad Rey Juan Carlos, Madrid, Spain)
In series: Surgery - Procedures, Complications, and Results
Expected Publication Date: 09/15/2021
357 pp.
Hardcover: 978-1-53619-976-5. $230.00
e-book: 978-1-68507-026-7. $230.00
Enhanced recovery after surgery (ERAS) programs are a multidisciplinary approach in the perioperative care of the patient undergoing major surgery, including pre, intra and postoperative measures, based on the actual evidence published in literature (evidence-based medicine), to improve the postoperative recovery of the patient. ERAS protocols have been widely developed in colorectal surgery, but, given their excellent results, new protocols and guidelines have been developed in other surgical fields, including abdominal and extra-abdominal areas. In the last decade, several ERAS protocols have been implemented worldwide in bariatric surgery, confirming their safety and advantages of ERAS approaches, even on morbidly obese patients.
The aim of this book is to update the actual evidence about ERAS protocols on bariatric surgery, analyzing separately the different components and multidisciplinary approach of the ERAS programs.

Cancer and Pregnancy: A Practical Approach for the Gynecologist
Elisa Picardo, MD (Ginecologia e Ostetricia SC4, Città della Salute e della Scienza di Torino, Ospedale Sant’Anna, Torino, Italy), Marco Mitidieri, MD (Ginecologia e Ostetricia SC4, Città della Salute e della Scienza di Torino, Ospedale Sant’Anna, Torino, Italy) and Saverio Danese, MD (Ginecologia e Ostetricia SC4, Città della Salute e della Scienza di Torino, Ospedale Sant’Anna, Torino, Italy)
In series: Obstetrics and Gynecology Advances
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286 pp.
Hardcover: 978-1-53619-844-7. $195.00
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Cancer during pregnancy is a rare event, occurring approximately once per 1,000 pregnancies annually, corresponding to 0.07% to 0.1% of all malignant tumors. The incidence of cancer in pregnancy is increasing maybe due to trends in delayed childbearing. The most common malignancies associated with pregnancy are, in order of decreasing frequency, melanoma and breast cancer, cervical cancer, lymphomas and leukemias. Melanoma, hematopoietic malignancies and lung cancer are the only cancers that have been reported to metastasize to the placenta and fetus, while melanoma accounts for almost one third of all cases. Imaging during pregnancy should consider risks to the fetus. Treatment of cancer can often be safely administered with good maternal and fetal outcomes. Chemotherapy, radiotherapy, and surgery must be adapted to the pregnancy state. Psychological support is needed at all levels of care.
In addition, the diagnosis of cancer during reproductive age is increased, so procedures for counseling women with newly diagnosed cancer for fertility preservation are necessary. Due to high survival rates and high quality of life after cancer, women should be given the opportunity to plan motherhood after cancer actively.
This work will provide an updated review of the diagnosis, staging and treatment options for cancer during pregnancy and the tools for a complete oncofertility counseling.
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