

BIBLIOTECA
CENTRAL DO CCS

CENTRO DE
CIÊNCIAS DA
SAÚDE

UNIVERSIDADE
FEDERAL DO
RIO DE JANEIRO



ESTE
BOLETIM
INFORMATIVO
RELACIONA
OS E-BOOKS
ADQUIRIDOS
PELA UFRJ E
FAPERJ
DISPONÍVEIS
NA BASE
MINERVA
PARA
CONSULTA
ON-LINE

Boletim Informativo de E-books

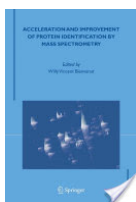
VOLUME 1, EDIÇÃO 1

JUL. 2018



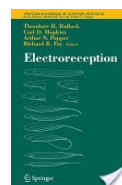
ALBERGHINA, L. (ed.). *Systems biology definitions and perspectives*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

For life to be understood and disease to become manageable, the wealth of postgenomic data now needs to be made dynamic. This development requires systems biology, integrating computational models for cells and organisms in health and disease; quantitative experiments (high-throughput, genome-wide, living cell, in silico); and new concepts and principles concerning interactions. This book defines the new field of systems biology and discusses the most efficient experimental and computational strategies. The benefits for industry, such as the new network-based drug-target design validation, and testing, are also presented.



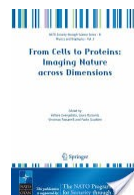
BIENVENUT, W. V. (ed.). *Acceleration and improvement of protein identification by mass spectrometry*. Dordrecht: Springer Netherlands, 2005.

At present where protein identification and characterisation using mass spectrometry is a method of choice, this book is presenting a review of basic proteomic techniques. The second part of the book is related to the novel high throughput protein identification technique called the 'molecular scanner'. Several protein identification techniques are described, especially the peptide mass fingerprint with MALDI-MS based method. E.g. ionisation process, matrix available, signal reproducibility and suppression effect, as well as data treatment for protein identification using bioinformatics tools.



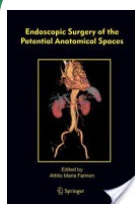
BULLOCK, T. H. (ed.). *Electroreception*. New York, NY: Springer New York, 2005.

Electroreception has become one of the most revealing areas in the study of the neural basis of behavior, and neurobiologists recognize it as a model sensory system for experimental study. Through studies of electroreception, researchers have gained extensive knowledge about a complete sensory system, from molecular biology to computation, communication and behavior. The book *Electroreception* will examine the behavior, structure and function of the electrosensory systems of fish and other vertebrates. As a comprehensive volume on the subject, the book will serve as both an introduction to the study of electroreception and a reference and review volume for researchers in related fields.



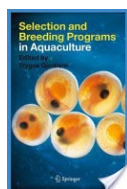
EVANGELISTA, V. (ed.). *From cells to proteins: imaging nature across dimensions*. Proceedings of the NATO Advanced Study Institute on From Cells to Proteins: Imaging Nature across Dimensions Pisa, Italy 12–23 September 2004. Dordrecht: Springer Netherlands, 2005.

How deep we can see inside Nature's smallest secrets? Will it be possible some day in the near future to investigate living structures at atomic level? This area of study is very interdisciplinary, since it applies the principles and the techniques of biology, physics, chemistry, mathematics, and engineering to elucidate the structures of biological macromolecules, of supramolecular structures, organelles, and cells. This book offers updated information on how much information we are able to obtain in the exploration of the inner details of biological specimens in their native structure and composition. The book deals with the implementation of laser beam and stage scanning systems incorporating confocal optics or multiphoton microscopy; the advent of new electro-optical detectors with great sensitivity, linearity, and dynamic range; the possibility of 2D fast image enhancement, reconstruction, restoration, analysis and 3D display, and the application of luminescence techniques (FLIMT, FRET combined with the use of quantum dots), which gives the possibility to investigate the chemical and molecular spatio-temporal organization of life processes; Electron Microscopy and Scanning Force Microscopy (SFM), are also presented, which has opened completely new perspectives for analyzing the surface topography of biological matter in its aqueous environment at a resolution comparable to that achieved by EM.



FARINON, A. M. (ed.). *Endoscopic surgery of the potential anatomical spaces*. Dordrecht, Netherlands: Springer Netherlands, 2005.

"Potential anatomical spaces" have attracted surgeons in the past and in recent years. Due to the development of modern imaging techniques and the advent of minimally invasive surgery, access to these spaces has become a real surgical option. The purpose of this book is to document the challenges related to "potential anatomical spaces", traditionally described as "hidden" spaces. The spread of video-assisted surgery and its application in the management of diseases involving organs or anatomical structures placed in the "potential spaces" (neck, mediastinum, pro-peritoneum and retro-peritoneum, subfacial space of the leg, and axilla), has



GJERDEM, T. (ed.). *Selection and breeding programs in aquaculture*. Dordrecht: Springer Netherlands, 2005.

Although aquaculture as a biological production system has a long history, systematic and efficient breeding programs to improve economically important traits in the farmed species have rarely been utilized until recently, except for salmonid species. This means that the majority of aquaculture production (more than 90 %) is based on genetically unimproved stocks. In farm animals the situation is vastly different: practically no terrestrial farm production is based on genetically unimproved and undomesticated populations. This difference between aquaculture and livestock production is in spite of the fact that the basic elements of breeding theory are the same for fish and shellfish as for farm animals. One possible reason for the difference is the complexity of reproductive biology in aquatic species, and special consideration needs to be taken in the design of breeding plans for these species. Since 1971 AKVAFORSK, has continuously carried out large scale breeding research projects with salmonid species, and during the latest 15 years also with a number of fresh water and marine species. Results from this work and the results from other institutions around the world have brought forward considerable knowledge, which make the development of efficient breeding programs feasible. The genetic improvement obtained in selection programs for fish and shellfish is remarkable and much higher than what has been achieved in terrestrial farm animals.




GROSJEAN, H. (ed.). *Fine-tuning of RNA functions by modification and editing*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

Naturally occurring RNA always contains numerous biochemically altered nucleotides. They are formed by enzymatic modification of the primary transcripts during the complex RNA maturation process designated RNA modification. A large number of enzymes catalyzing the formation of these modified nucleosides or converting one canonical base into another at the posttranscriptional level have been studied for many years, but only recently have systematic and comparative studies begun. The functions of individual enzymes and/or the modified/edited nucleosides in RNA, however, have remained largely ignored. This book provides advance information on RNA modification, including the associated editing machinery, while offering the reader some perspective on the significance of such modifications in fine-tuning the structure and functions of mature RNA molecules and hence the ability to influence the efficiency and accuracy of genetic expression. Outstanding scientists who are actively working on RNA modification/editing processes have provided up-to-date information on these intriguing cellular processes that have been generated over the course of millions of years in all living organisms. Each review has been written and illustrated for a large audience of readers, not only specialists in the field, but also for advanced students or researchers who want to learn more about recent progress in RNA modification and editing.



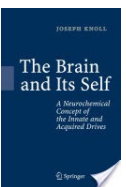
HE, B. (ed.). *Modeling and imaging of bioelectrical activity principles and applications*. Boston, MA: Springer US, 2005.

Over the past several decades, much progress has been made in understanding the mechanisms of electrical activity in biological tissues and systems, and for developing non-invasive functional imaging technologies to aid clinical diagnosis of dysfunction in the human body. The book will provide full basic coverage of the fundamentals of modeling of electrical activity in various human organs, such as heart and brain. It will include details of bioelectromagnetic measurements and source imaging technologies, as well as biomedical applications. The book will review the latest trends in the field and comment on the future direction in this fast developing line of research.




JAIN, S. M. (ed.). *Protocol for somatic embryogenesis in woody plants*. Dordrecht: Springer Netherlands, 2005.

Earlier, we edited a well received series on "Somatic embryogenesis in woody trees", volumes 1 to 6. These volumes provided readers extensive reviews on somatic embryogenesis of important angiosperm and gymnosperm tree species; an excellent source of information for newcomers or those already engaged in research. However, these book volumes did not cover stepwise "detailed protocols" for inducing somatic embryogenesis. This book contains 46 chapters, divided into 4 sections: A) 12 chapters on conifers, B) 14 chapters on fruits, C) 14 chapters on angiosperms, and D) 6 chapters on histology, bioencapsulation, protoplasts, cryopreservation, double staining and thin cell layer sectioning. The book provides stepwise protocols for somatic embryogenesis of a range of selected woody plants in order to assist researchers to initiate somatic embryogenic cultures without too much alterations in protocols. Each chapter provides information on initiation and maintenance of embryogenic cultures; somatic embryo development, maturation, and germination; acclimatization and field transfer of somatic seedlings. Some chapters include applications of somatic embryogenesis cultures, e.g. protoplasts, encapsulation, cryopreservation, genetic transformation, genetic fidelity with molecular markers,




KNOLL, J. *The brain and its self a neurochemical concept of the innate and acquired drives*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

The main message of this monograph is that the appearance of the mammalian brain with the ability to acquire drives ensured the development of social life, and eventually led to the evolution of the human society. This most sophisticated form of organized life on earth is still in the trial and error phase of its development. It seeks to outgrow the myth-directed era of its history and come to its final state, the ration-directed human society.



KOLETZKO, B. (ed.). *Early nutrition and its later consequences: perinatal programming of adult health - EC supported research*. Dordrecht: Springer Netherlands, 2005.

Health problems such as hypertension, tendency to diabetes, obesity, blood lipids, vascular disease, bone health, behaviour and learning and longevity may be 'imprinted' during early life. This process is defined as 'programming' whereby a nutritional stimulus operating at a critical, sensitive period of pre and postnatal life imprints permanent effects on the structure, physiology and metabolism. For this reason, academics and industry set-up the EC supported Scientific Workshop -Early Nutrition and its Later Consequences: New Opportunities. The prime objective of the Workshop was to generate a sound exchange of the latest scientific developments within the field of early nutrition to look for opportunities for new preventive health concepts. Further, a closer look was taken at the development of food applications which could provide (future) mothers and infants with improved nutrition that will ultimately lead to better future health. The Workshop was organised by the Dept. of Pediatrics, University of Munich, Germany in collaboration with the Danone Institutes and the Infant Nutrition Cluster, a collaboration of three large research projects funded by the EU.



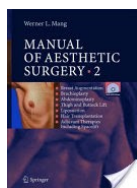
KREISSIG, I. (ed.). *Primary retinal detachment options for repair*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

This information-packed volume is the ultimate guide for today's vitreo-retinal surgeon. It is written by leading experts in the field. The book begins with an extensive review, analyzing the evolution of present-day detachment surgery over the past 70 years. Here, a changing pattern of treatment modalities comes into view, with four primary procedures in use at the beginning of the twenty-first century. Experts in the field of retinal and vitreous surgery then describe the following surgical techniques: cerclage with drainage, pneumatic retinopexy, primary vitrectomy, and minimal segmental buckling without drainage. The advantages and disadvantages of each technique are assessed in relation to case selection, single operation attachment, final attachment, complications, visual function, and cost effectiveness. The techniques are then compared with each other. The volume continues with a description of the use of modern adjuvant pharmacotherapy (intravitreal triamcinolone acetonide, anti-metabolites, fluorouracil, daunorubicin, heparin, etc.) to improve the surgical and functional outcome of these techniques. Finally, in the chapter entitled 'Outlook for the Future,' new imaging techniques (ballistic light imaging, refined ultrasonography, wide angle pseudo color SLO, etc.) and anti-proliferative drugs are discussed. Ophthalmologists, fellows in retinal and vitreous surgery, and students and residents will find this book essential for diagnosing and



LAMBERS, H. (ed.). *Plant respiration from cell to ecosystem*. Dordrecht: Springer Netherlands, 2005.

Respiration in plants, as in all living organisms, is essential to provide metabolic energy and carbon skeletons for growth and maintenance. As such, respiration is an essential component of a plant's carbon budget. Depending on species and environmental conditions, it consumes 25-75% of all the carbohydrates produced in photosynthesis – even more at extremely slow growth rates. Respiration in plants can also proceed in a manner that produces neither metabolic energy nor carbon skeletons, but heat. This type of respiration involves the cyanide-resistant, alternative oxidase; it is unique to plants, and resides in the mitochondria. The activity of this alternative pathway can be measured based on a difference in fractionation of oxygen isotopes between the cytochrome and the alternative oxidase. Heat production is important in some flowers to attract pollinators; however, the alternative oxidase also plays a major role in leaves and roots of most plants. A common thread throughout this volume is to link respiration, including alternative oxidase activity, to plant functioning in different environments.



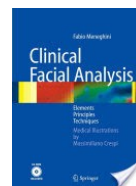
MANG, W. L. *Manual of aesthetic surgery 2: breast augmentation, brachioplasty, abdominoplasty, thigh and buttock lift, liposuction, hair transplantation, adjuvant therapies including spacelift*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

Não consta resumo.



MEADOWS, G. G. (ed.). *Integration/Interaction of oncologic growth*. Dordrecht: Springer Netherlands, 2005.

The present multi-volume Book Series, **CANCER GROWTH AND PROGRESSION**, encompasses the widest possible framework of cutting edge research in the field of neoplastic pathology and other integrated fields. Normal and pathologic growth is one of the most intensively studied yet challenging areas in pathology. Thus the individual volumes in this series focus on the topics of highest scientific interest for basic and clinical researchers, pathologists, medical and surgical oncologists and allied multidisciplinary teams interested in the study of these aspects of neoplastic growth, progression and inhibition. The range of topics covered is extensive, including but not limited to autonomous growth characteristics of malignancy, phenomena of progression of malignant growth involving the various body systems, and recent advances being made in successful neoplastic inhibition and control. Cell function may be described as producing progression or regression, often found as alternating features in tumors or as variations between normal tissues and tumors. The source of regression in normal melanin producing cells may not be the same as in melanomas. These functions of living matter persist in all phyla of eumetazoans vascular plants as well as in particular species of fungi. However, homo sapiens are the eumetazoan species, which interest us the most. Normal growth processes cannot be entirely understood in all its diversity until we have a thorough knowledge of what constitutes normal growth in various organisms.



MENECHINI, F. *Clinical facial analysis elements principles techniques*. Berlin, Heidelberg: Springer Berlin Heidelberg, 2005.

The present volume documents and analyzes facial features in preparation for aesthetic surgery and orthodontic treatment. It takes a multidisciplinary approach, emphasizing the relationships between different parts of the face. At the end of each of the central chapters, the reader will find a multiple-choice checklist that will help him perform a step-by-step regional facial analysis.



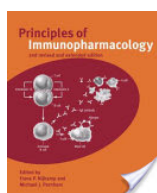
MORIOKA, K. *Hair follicle differentiation under the electron microscope: an atlas.* Tokyo : Springer Tokyo, 2005.

Each and every hair is much more than just the visible shaft—there are also associated complex sheath structures of epidermal and dermal origin. In the hair follicle, cells undergo a variety of differentiation processes, mostly depending on their layers and positions therein, and electron microscopy reveals a very complex architecture. The structure of a particular layer, such as Henle's layer of the inner root sheath, is not uniform. Rather, cells drastically change during the course of differentiation. By simply comparing electron micrographs of cells of a layer at different degrees of differentiation, one can hardly recognize them as belonging to the same layer. As readers will see, this book contains many superb electron micrographs, from low-magnification panoramic views for orientation to high-power views showing ultrastructural detail. Captions and schematic drawings are also very helpful in "reading" electron micrographs and understanding the structural detail. In this way, Dr. Morioka has succeeded in dissecting the complex hair follicle at the ultrastructural level.



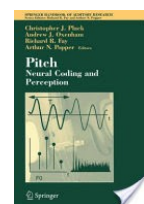
NAGORSEN, D. (ed.). *Analyzing T cell responses how to analyze cellular immune responses against tumor associated antigens.* Dordrecht : Springer Netherlands, 2005.

Active specific immunotherapy is a promising but investigational modality in the management of cancer patients. Currently, several different cancer vaccine formulations such as peptides, proteins, antigen-pulsed dendritic cells, whole tumor cells, etc. in combination with various adjuvants and carriers are being evaluated in clinical trials (1-3). To determine the optimal cancer vaccine strategy, a surrogate immunological end-point that correlates with clinical outcome needs to be defined, since it would facilitate the rapid comparison of these various formulations. Traditional immunological assays such as ELISA, proliferation and cytotoxicity assays can detect immune responses in vaccinated patients but are not quantitative. In contrast, novel assays such as enzyme-linked immunospot (ELISPOT) assay, intracellular cytokine assay and tetramer assay can quantitate the frequency of antigen-specific T cells. Of these, the ELISPOT assay has the 5 lowest detection limit with 1/10 peripheral blood mononuclear cells (PBMC) and has been determined to be one of the most useful assays to evaluate immune response to cancer vaccines (4). However, the IFN- γ ELISPOT assay is not an exclusive measure of cytotoxic T-lymphocyte (CTL) activity as non-cytotoxic cells can also secrete IFN- γ . Additionally, CTL with lytic activity do not always secrete IFN- γ (5). A more relevant approach to assess functional activity of cytotoxic lymphocytes would be to measure the secretion of molecules that are associated with lytic activity. One of the major mechanisms of cell-mediated cytotoxicity involves exocytosis of cytoplasmic granules from the effector toward the target cell.



NIJKAMP, F. P. (ed.). *Principles of immunopharmacology.* Basel : Birkhäuser Basel, 2005.

This single volume represents an additional text for students who require background information on the immune response, its diagnosis and its modification by drugs and chemicals. The first section of the book, providing a basic introduction to immunology and its relevance for human disease, has been updated to accommodate new immunological concepts. The second section on immunodiagnostics has been further expanded to describe widely used molecular techniques and is followed by a systematic coverage of drugs affecting the immune system, revised to cover recent developments. The book concludes with a chapter on immunotoxicology. This second edition, thus, continues the unique format, dealing with four related topics in a single volume, obviating the need to refer to several different textbooks. New aids to readers include a two-column format, glossaries of technical terms and an appendix of reference tables. The emphasis on illustrations from the first edition is maintained. The book, written by international experts, is suitable as a course textbook for students of various biomedical, chemical and pharmaceutical sciences and as a supporting text for medical and postgraduate students.



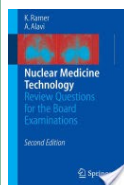
PLACK, C. J. (ed.). *Pitch neural coding and perception.* New York, NY : Springer New York, 2005.

Although pitch has been considered an important area of auditory research since the birth of modern acoustics in the 19th century, some of the most significant developments in our understanding of this phenomenon have occurred comparatively recently. In auditory physiology, researchers are now identifying cells in the brainstem and cortex that may be involved in the derivation of pitch. In auditory psychophysics, dramatic developments over the last several years have changed our understanding of temporal pitch mechanisms, and of the roles of resolved and unresolved harmonics. Computational modeling has provided new insights into the biological algorithms that may underlie pitch perception. Modern brain imaging techniques have suggested possible cortical locations for pitch mechanisms. This timely volume presents recent findings, while emphasizing their relation to the discoveries of the past. It brings together insights from several different methodological areas: physiology, psychophysics, comparative, imaging, etc., in addressing a single scientific problem. Pitch perception can be regarded as one of the main problems of hearing, and the multidisciplinary approach of the book provides a valuable reference source for graduate students and academics.



PRUD'HOMME, G. J. *Gene therapy of autoimmune diseases*. Boston, MA : Springer US, 2005.

Autoimmune diseases are diverse and responsible for considerable morbidity. Their etiology remains largely unknown, and current therapy with anti-inflammatory drugs is prone to adverse effects, and rarely curative. New therapies with anti-cytokine antibodies or receptors are promising, but require frequent administration of expensive protein drugs. Gene Therapy of Autoimmune Diseases comprehensively reviews research in gene therapy for autoimmune diseases with viral or non-viral vectors. Gene therapy offers the possibility of long-term, continuous delivery of a wide variety of immunosuppressive, anti-inflammatory, or tolerance-inducing agents. Moreover, highly specific genetically modified cells can be produced. This book discusses the most promising avenues in this exciting new field.



RAMER, K. ALAVI, A. *Nuclear medicine technology review questions for the board examinations*. 2nd ed. Berlin, Heidelberg : Springer Berlin Heidelberg, 2005.

Não consta resumo.



SEILER, J. P. *Good laboratory practice: the why and the how*. Berlin, Heidelberg : Springer Berlin Heidelberg, 2005.

After more than twenty years of use Good Laboratory Practice, or GLP, has attained a secure place in the world of testing chemicals and other “test items” with regard to their safety for humans and the environment. Gone are the days when the GLP regulations were hotly debated amongst scientists in academia and industry and were accused of stifling flexibility in, imaginative approaches to, and science-based conduct of, all kinds of studies concerned with toxic effects and other parameters important for the evaluation and assessment of products submitted for registration and permission to market. The GLP regulations have developed from rules on how to exactly document the planning, conduct and reporting of toxicity studies to a quality system for the management of a multitude of study types, from the simple determination of a physical/chemical parameter to the most complex field studies or ecotoxicology studies. At the same time the term “Good Laboratory Practice” has become somewhat of a slogan with the aim to characterise any reliably conducted laboratory work.



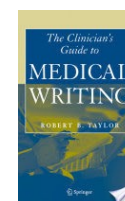
SLOBODA, Z. (ed.). *Epidemiology of drug abuse*. Boston, MA : Springer US, 2005.

Não consta resumo.



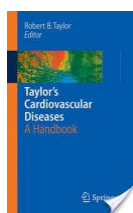
SOLOMON, P. (ed.). *Innovations in rehabilitation sciences education preparing leaders for the future: with 10 figures and 22 tables*. Berlin, Heidelberg : Springer Berlin Heidelberg, 2005.

We are most fortunate to be housed in an institution that embraces risk taking and innovation in education. Part of the joy of working at McMaster University is the sense that you will be supported in your efforts to develop new ways of facilitating learning even if these are not always successful. We are privileged to work with a group of exceptional colleagues who embrace - novation and strive for ongoing excellence in education. Their commitment and - thusiasm emerges through the reading of the chapters.



TAYLOR, R. B. *The clinician's guide to medical writing*. New York, NY : Springer New York, 2005.

This book teaches what clinicians need to know about medical writing and publishing. It is for the physician, physician assistant, or nurse practitioner who sees patients and also wants to contribute to the medical literature, as well as for the assistant professor aspiring to promotion. It is written from the viewpoint of the clinician seeking the personal enrichment that writing can bring. Readers learn how to translate observations and ideas from practice into written form and eventually into print. The guide for this journey is Dr. Robert B. Taylor, a distinguished leader in academic family medicine. With a clear, conversational writing style, Dr. Taylor shares what he has learned—what works and what doesn't—through the course of publishing 22 medical books and several hundred papers. He draws from his successes (and some failures) as he tells helpful ways to write review articles, case reports, editorials, letters to the editor, book reviews, book chapters, reference books, and research reports. Loaded with practical advice and real-world examples, this text benefits readers who are new to medical writing and those who have authored a few articles or chapters and want to improve their skills.



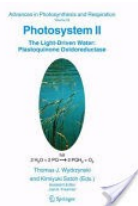
TAYLOR, R. B. (ed.). *Taylor's cardiovascular diseases a handbook*. New York, NY : Springer New York, 2005.

This handbook addresses the intricacies of providing cardiovascular care and consists of selected chapters from *Family Medicine: Principles and Practice*, Sixth Edition, the critically acclaimed and widely used reference for family physicians edited by Robert B. Taylor, MD. Internationally recognized contributors examine how to provide high-quality, ongoing care for common cardiovascular problems based on current evidence and time-tested methods in clinical practice. Chapters cover diseases of the heart and blood vessels that primary care physicians often find difficult to diagnose or treat, such as hypertension, ischemic heart disease, dyslipidemia, and venous thromboembolism. Other topics include cerebrovascular disease, cardiovascular emergencies, and medical care of the surgical patient. With a convenient, pocket-sized trim, this book is an indispensable resource for family physicians and others who provide primary care.



VILJOEN, G. J.; NEL, L. H. *Molecular diagnostic PCR handbook*. Dordrecht : Springer Netherlands, 2005.

PREFACE The Joint FAO/IAEA Division of Nuclear Techniques in Food and Agriculture is involved in agricultural research and development and assists Member States of FAO and IAEA in improving strategies to ensure food security through the use of nuclear techniques and related biotechnologies, where such techniques have a valuable and often unique role. In particular, molecular diagnostic methods have rapidly evolved in the past twenty years, since the advent of the Polymerase Chain Reaction (PCR). They are used in a wide range of agricultural areas such as, improving soil and water management; producing better crop varieties; diagnosing plant and animal diseases; controlling insect pests and improving food quality and safety. The uses of nucleic acid-directed methods have increased significantly in the past five years and have made important contributions to disease control country programmes for improving national and international trade. These developments include the more routine use of PCR as a diagnostic tool in veterinary diagnostic laboratories. However, there are many problems associated with the transfer and particularly, the application of this technology. These include lack of consideration of: the establishment of quality-assured procedures, the required set-up of the laboratory and the proper training of staff. This can lead to a situation where results are not assured. This book gives a comprehensive account of the practical aspects of PCR and strong consideration is given to ensure its optimal use in a laboratory environment. This includes the setting-up of a PCR laboratory; Good Laboratory Practice and standardised of PCR protocols.



WYDRZYNSKI, T. J. (ed.). *Photosystem II the light-driven water: plastoquinone oxidoreductase*. Dordrecht : Springer Netherlands, 2005.

Dedicated to the memory of one of the early pioneers in this field of research, Professor Gerald T. Babcock, the 34 inclusive chapters of the present volume cover all major aspects of the molecular biology, biochemistry, biophysics and physiology of Photosystem II. The chapters were variously authored by a total of 75 scientific experts from leading research centers in Europe, North America, Asia and Australia, making the book a truly international effort. The book is divided into several parts which detail the protein constituents, functional sites, tertiary structure, molecular dynamics and mechanisms of subunit assembly and homeostasis. The book ends with a comparison of Photosystem II structure and function with other related enzymes and bio-mimetic systems. Since the unique water-splitting chemistry catalyzed by Photosystem II leads to the production of pure oxygen gas and the potential for making hydrogen gas, a primary goal of this book is to provide a molecular guide to future protein engineers and bio-mimetic chemists in the development of appropriate biocatalysts for the generation of clean, renewable energy



ZAMBETTI, G. P. (ed.). *The p53 tumor suppressor pathway and cancer*. Boston, MA : Springer US, 2005.

The current year (2004) marks the Silver Anniversary of the discovery of the p53 tumor suppressor. The emerging field first considered p53 as a viral antigen and then as an oncogene that cooperates with activated ras in transforming primary cells in culture. Fueling the concept of p53 acting as a transforming factor, p53 expression was markedly elevated in various transformed and tumorigenic cell lines when compared to normal cells. In a simple twist of fate, most of the studies conducted in those early years inadvertently relied on a point mutant of p53 that had been cloned from a normal mouse genomic library. A bona fide wild-type p53 cDNA was subsequently isolated, ironically, from a mouse teratocarcinoma cell line. A decade after its discovery, p53 was shown to be a tumor suppressor that protects against cancer. It is now recognized that approximately half of all human tumors arise due to mutations within the p53 gene. As remarkable as this number may seem, it significantly underrepresents how often the p53 pathway is targeted during tumorigenesis. It is my personal view, as well as many in the field, that the p53-signaling pathway is corrupted in nearly 100% of tumors. If you are interested in understanding cancer and how it develops, you must begin by studying p53 and its pathway. After demonstrating that p53 functions as a tumor suppressor the field exploded and p53 became a major focus of scientists around the world.

BIBLIOTECA CENTRAL DO CCS

Contato



Telefone: (21) 3938-6716/6633



Email: ccsbib@acd.ufrj.br



Endereço: Av. Carlos Chagas Filho, 373
Centro de Ciências da Saúde,
Bloco- L - Cidade Universitária – Ilha do
Fundão CEP-21941-902 - Rio de Janeiro
- RJ - Brasil



BIBLIOTECA CENTRAL
CENTRO DE CIÊNCIAS DA
SAÚDE
UNIVERSIDADE FEDERAL DO
RIO DE JANEIRO
<http://www.bib.ccs.ufrj.br>



bc.ccs



@bc_ccs