

Bba Journal Impact Factor

These original contributions provide a current sampling of AI approaches to problems of biological significance; they are the first to treat the computational needs of the biology community hand-in-hand with appropriate advances in artificial intelligence. The enormous amount of data generated by the Human Genome Project and other large-scale biological research has created a rich and challenging domain for research in artificial intelligence. These original contributions provide a current sampling of AI approaches to problems of biological significance; they are the first to treat the computational needs of the biology community hand-in-hand with appropriate advances in artificial intelligence. Focusing on novel technologies and approaches, rather than on proven applications, they cover genetic sequence analysis, protein structure representation and prediction, automated data analysis aids, and simulation of biological systems. A brief introductory primer on molecular biology and AI gives computer scientists sufficient background to understand much of the biology discussed in the book. Lawrence Hunter is Director of the Machine Learning Project at the National Library of Medicine, National Institutes of Health.

This text covers the whole scope of Asian history in a single volume. It requires no prior knowledge of Asian history and seeks to be clear and readable. It particularly identifies inter-relationships between the developing Western and Asian societies.

The economic and political situation of cities has shifted in recent years in light of rapid growth amidst infrastructure decline, the suburbanization of poverty and inner city revitalization. At the same time, the way that data are used to understand urban systems has changed dramatically. Urban Analytics offers a field-defining look at the challenges and opportunities of using new and emerging data to study contemporary and future cities through methods including GIS, Remote Sensing, Big Data and Geodemographics. Written in an accessible style and packed with illustrations and interviews from key urban analysts, this is a groundbreaking new textbook for students of urban planning, urban design, geography, and the information sciences.

The field of computational intelligence has grown tremendously over that past five years, thanks to evolving soft computing and artificial intelligent methodologies, tools and techniques for envisaging the essence of intelligence embedded in real life observations. Consequently, scientists have been able to explain and understand real life processes and practices which previously often remain unexplored by virtue of their underlying imprecision, uncertainties and redundancies, and the unavailability of appropriate methods for describing the incompleteness and vagueness of information represented. With the advent of the field of computational intelligence, researchers are now able to explore and unearth the intelligence, otherwise insurmountable, embedded in the systems under consideration. Computational Intelligence is now not limited to only specific computational fields, it has made inroads in signal processing, smart manufacturing, predictive control, robot navigation, smart cities, and sensor design to name a few. Recent Trends in Computational Intelligence Enabled Research: Theoretical Foundations and Applications explores the use of this computational paradigm across a wide range of applied domains which handle meaningful information. Chapters investigate a broad spectrum of the applications of computational intelligence across different platforms and disciplines, expanding our knowledge base of various research initiatives in this direction. This volume aims to bring together researchers, engineers, developers and practitioners from academia and industry working in all major areas and interdisciplinary areas of computational intelligence, communication systems, computer networks, and soft computing. Provides insights into the theory, algorithms, implementation, and application of computational intelligence techniques Covers a wide range of applications of deep learning across various domains which are researching the applications of computational intelligence Investigates novel techniques and reviews the state-of-the-art in the areas of machine learning, computer vision, soft computing techniques

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Healthcare Data Analytics and Management help readers disseminate cutting-edge research that delivers insights into the analytic tools, opportunities, novel strategies, techniques and challenges for handling big data, data analytics and management in healthcare. As the rapidly expanding and heterogeneous nature of healthcare data poses challenges for big data analytics, this book targets researchers and bioengineers from areas of machine learning, data mining, data management, and healthcare providers, along with clinical researchers and physicians who are interested in the management and analysis of healthcare data. Covers data analysis, management and security concepts and tools in the healthcare domain Highlights electronic medical health records and patient information records Discusses the different techniques to integrate Big data and Internet-of-Things in healthcare, including machine learning and data mining Includes multidisciplinary contributions in relation to healthcare applications and challenges

Addressing the widespread need for a practical guide to imaging mass spectrometry (IMS), this book presents the protocols of IMS technology. As that technology expands, research groups around the world continue its development. Pharmaceutical companies are using IMS for drug analyses to study pharmacokinetics and medical properties of drugs. Drug research and disease-related biomarker screening are experiencing greater use of this technology, with a concurrent increase in the number of researchers in academia and industry interested in wider applications of IMS. Intended for beginners or those with limited experience with IMS technology, this book provides practical details and instructions needed for immediate know-how, including the preparation of animal tissue samples, the application of a matrix, instrumental operations, and data analysis, among others. By describing the foundations of IMS, this volume contributes to the ongoing development of the field and to progress in human health.

Morrey spaces were introduced by Charles Morrey to investigate the local behaviour of solutions to second order elliptic partial differential equations. The technique is very useful in many areas in mathematics, in particular in harmonic analysis, potential theory, partial differential equations and mathematical physics. Across two volumes, the authors of *Morrey Spaces: Introduction and Applications to Integral Operators and PDE's* discuss the current state of art and perspectives of developments of this theory of Morrey spaces, with the emphasis in Volume II focused mainly generalizations and interpolation of Morrey spaces. Features Provides a 'from-scratch' overview of the topic readable by anyone with an understanding of integration theory Suitable for graduate students, masters course students, and researchers in PDE's or Geometry Replete with exercises and examples to aid the reader's understanding

Since 1982, Ras proteins have been the subject of intense research investigation by the biomedical research community. The wide interest in Ras has been stimulated for three key reasons. This book features chapters contributed by leading investigators in the field that highlight the current state-of-the art in Ras biochemistry, structure and biology. This book is an excellent reference for students in the biomedical sciences and for investigators in the field.

Transcultural management ; Management styles ; Intercultural communication.

Membrane StructureElsevier

Structural Glycobiology covers the experimental, theoretical, and alternative technologies used in the study of the structural basis for the diverse biological roles of carbohydrates. The book overviews the application of specialized technologies to the study of carbohydrates in biology, reviews relevant and current research in the field, and is illustrated throughout by specific examples of how research investigations have yielded key structural and associated biological data on carbohydrates and glycolipids. In particular, the book focuses on: X-ray crystallography and small-angle scattering, NMR, and cryo-electron microscopy techniques Theoretical (modeling-based) approaches, such as molecular mechanics, molecular dynamics, free energy calculations, and carbohydrate docking Alternative techniques for yielding structural information on carbohydrates from complex biological samples Carbohydrates in medicine, specifically in areas that have been directly impacted by our understanding of the structural role of carbohydrates in immune recognition: cancer, organ transplantation, and infection

Biocatalysis has become an essential tool in the chemical industry and is the core of industrial biotechnology, also known as white biotechnology, making use of biocatalysts in terms of enzymes or whole cells in chemical processes as an alternative to chemical catalysts. This shift can be seen in the many areas of daily life where biocatalysts—with their environmentally friendly properties—are currently employed. Drivers are the big societal challenges resulting from concerns about the global climate change and the need for an assured energy supply. Modern biocatalysis relies to a large extent on the tremendous advances in the so-called omics techniques and the structural elucidation of biomolecules, which have led to synthetic biology and metabolic engineering as new research fields with high application potential for the rational design of enzymes and microbial production strains. In this book, renowned scientists discuss the actual developments in these research fields together with a variety of application-oriented topics.

Jules Verne (1828-1905), author of *Around the World in Eighty Days* (1873) and *Journey to the Center of the Earth* (1864), wrote in 1875 "I believe that water will one day be used as a fuel, because the hydrogen and oxygen which constitute it, used separately or together, will furnish an inexhaustible source of heat and light. I therefore believe that, when coal (oil) deposits are oxidised, we will heat ourselves by means of water. Water is the fuel of the future" Solar energy is the only renewable energy source that has sufficient capacity for the global energy need; it is the only one that can address the issues of energy crisis and global climate change. A vast amount of solar energy is harvested and stored via photosynthesis in plants, algae, and cyanobacteria since over 3 billion years. Today, it is estimated that photosynthesis produces more than 100 billion tons of dry biomass annually, which would be equivalent to a hundred times the weight of the total human population on our planet at the present time, and equal to a global energy storage rate of about 100 TW. The solar power is the most abundant source of renewable energy, and oxygenic photosynthesis uses this energy to power the planet using the amazing reaction of water splitting. During water splitting, driven ultimately by sunlight, oxygen is released into the atmosphere, and this, along with food production by photosynthesis, supports life on our earth. The other product of water oxidation is "hydrogen" (proton and electron). This 'hydrogen' is not normally released into the atmosphere as hydrogen gas but combined with carbon dioxide to make high energy containing organic molecules. When we burn fuels we combine these organic molecules with oxygen. The design of new solar energy systems must adhere to the same principle as that of natural photosynthesis. For us to manipulate it to our benefit, it is imperative that we completely understand the basic processes of natural photosynthesis, and chemical conversion, such as light harvesting, excitation energy transfer, electron transfer, ion transport, and carbon fixation. Equally important, we must exploit application of this knowledge to the development of fully synthetic and/or hybrid devices. Understanding of photosynthetic reactions is not only a satisfying intellectual pursuit, but it is important for improving agricultural yields and for developing new solar technologies. Today, we have considerable knowledge of the working of photosynthesis and its photosystems, including the water oxidation reaction. Recent advances towards the understanding of the structure and the mechanism of the natural photosynthetic systems are being made at the molecular level. To mimic natural photosynthesis, inorganic chemists, organic chemists, electrochemists, material scientists, biochemists, biophysicists, and plant biologists must work together and only then significant progress in harnessing energy via "artificial photosynthesis" will be possible. This Research Topic provides recent advances of our understanding of photosynthesis, gives to our readers recent information on photosynthesis research, and summarizes the characteristics of the natural system from the standpoint of what we could learn from it to produce an efficient artificial system, i.e., from the natural to the artificial. This topic is intended to include exciting breakthroughs, possible limitations, and open questions in the frontiers in photosynthesis research.

This unique book is dedicated to helping promote geoheritage, geoconservation, and geoparks in Africa and the Middle East. Local, regional, global and thematic case studies including a geoheritage toolkit are used to illustrate the scope and depth of geoheritage and highlight some current geoparks and aspiring candidates in Africa, the Middle East, China , Europe, and Australia. This special issue mainly consists of the proceedings of the First International Conference on Geoparks in Africa and Middle East (FICGAME) held in, El Jadida, Morocco in 2011. The conference, hosted by the Faculty of Sciences of Chouaib Doukkali University, was organized by the African Geoparks Network and the African Association of Women in Geosciences

incollaboration with the UNESCO Cairo Office.

In view of rapidly growing research in the deregulation of proteases and their impact in human health and diseases, this book will highlight existing and emerging research in this exciting area. In-depth critical state-of-the-art reviews will be written by established investigators on proteases dysfunctions associated with pathogenesis of different diseases that are known to occur due to deregulation of proteolytic systems. Multidisciplinary approaches demonstrating biochemical and signal transduction mechanisms associated with deregulation of proteases leading to manifestation of the diseases will be discussed. The book highlights the roles of both intracellular and extracellular proteases in health and disease.

new technologies

The updated edition of the bestselling book that has changed millions of lives with its insights into the growth mindset “Through clever research studies and engaging writing, Dweck illuminates how our beliefs about our capabilities exert tremendous influence on how we learn and which paths we take in life.”—Bill Gates, *GatesNotes* After decades of research, world-renowned Stanford University psychologist Carol S. Dweck, Ph.D., discovered a simple but groundbreaking idea: the power of mindset. In this brilliant book, she shows how success in school, work, sports, the arts, and almost every area of human endeavor can be dramatically influenced by how we think about our talents and abilities. People with a fixed mindset—those who believe that abilities are fixed—are less likely to flourish than those with a growth mindset—those who believe that abilities can be developed. Mindset reveals how great parents, teachers, managers, and athletes can put this idea to use to foster outstanding accomplishment. In this edition, Dweck offers new insights into her now famous and broadly embraced concept. She introduces a phenomenon she calls false growth mindset and guides people toward adopting a deeper, truer growth mindset. She also expands the mindset concept beyond the individual, applying it to the cultures of groups and organizations. With the right mindset, you can motivate those you lead, teach, and love—to transform their lives and your own.

Proteomics and Systems Biology, Volume 127 in the Advances in Protein Chemistry and Structural Biology series, outlines current proteomic methodologies and discuss the challenges in future applications of systems biology in a number of biomedical/bioscience subjects. In last few decades, advances in genomics, proteomics, metabolomics, glycomics, venomics, etc., have produced vast large-scale datasets that need to be analyzed with a single main objective of understanding biological systems as a whole. Such understanding will allow us to predict and characterize the dynamic properties of biological systems. Integrates experimental and computational methods for understanding biological systems as a whole Contains timely chapters written by well-renowned authorities in their field Includes well supported content that is accompanied by a number of high-quality illustrations, figures and tables, hence it targets a wide audience of specialists, researchers and students

Membrane Structure

Over the past 40 years the field of molecular simulations has evolved from picosecond studies of isolated macromolecules in vacuum to studies of complex, chemically heterogeneous biological systems consisting of millions of atoms, with the simulation time scales spanning up to milliseconds. In *Biomolecular Simulations: Methods and Protocols*, expert researchers illustrate many of the methods commonly used in molecular modelling of biological systems, including methods for electronic structure calculations, classical molecular dynamics simulations and coarse-grained techniques. A selection of advanced techniques and recent methodological developments, which rarely find coverage in traditional textbooks, is also introduced. Written in the highly successful *Methods in Molecular Biology* series format, chapters include general introductions to well-established computational methodologies, applications to real-world biological systems, as well as practical tips and general protocols on carrying out biomolecular simulations. Special emphasis is placed on simulations of proteins, lipids, nucleic acids, and carbohydrates. Authoritative and practical, *Biomolecular Simulations: Methods and Protocols* seeks to aid scientists in further simulation studies of biological systems.

Core Curriculum for Interdisciplinary Lactation Care provides a trustworthy source for lactation-specific information and education for students, interns, certification candidates, instructors, and clinicians—in any discipline or specialty—who provide care to breastfeeding families. Published in association with the Lactation Education Accreditation and Approval Review Committee (LEAARC), it reflects the current state of practice and serves as a fundamental resource for beginning clinicians, orienting staff, and planning continuing education programs. Organized in three sections, Core Curriculum for Interdisciplinary Lactation Care focuses on the science, management, and professional aspects of lactation care. With contributions from a team of clinical lactation experts from several countries around the world, it emphasizes an interdisciplinary approach to provide comprehensive care for breastfeeding families.

This third edition of a successful textbook is a concise description of the structure and function of genes.

Advances in Clinical Chemistry, Volume 95, the latest installment in this internationally acclaimed series, contains chapters authored by world-renowned clinical laboratory scientists, physicians and research scientists. The serial discusses the latest and most up-to-date technologies related to the field of clinical chemistry, with this new release including sections on Advances in diagnostic microfluidics, Vascular and valvular calcification biomarkers, Long noncoding RNAs in cancer: From discovery to therapeutic targets, Exosomes of male reproduction, Tryptophan in health and disease, Biochemistry of blood platelet activation, and the beneficial role of plant oils in cardiovascular diseases.

Based on careful analysis of burden of disease and the costs of interventions, this second edition of 'Disease Control Priorities in Developing Countries, 2nd edition' highlights achievable priorities; measures

progress toward providing efficient, equitable care; promotes cost-effective interventions to targeted populations; and encourages integrated efforts to optimize health. Nearly 500 experts - scientists, epidemiologists, health economists, academicians, and public health practitioners - from around the world contributed to the data sources and methodologies, and identified challenges and priorities, resulting in this integrated, comprehensive reference volume on the state of health in developing countries.

This report reflects long-term, in-depth discussion and debate by participants in the Latin American Roundtable on Corporate Governance.

The purpose of this Special Issue is to provide a thorough and up-to-date presentation of research investigating the impact of coffee and/or caffeine intake on various health outcomes. We welcome the submission of original research articles and/or systematic Reviews/meta-analyses focusing on several aspects of coffee/caffeine intake in relation to human health. Areas of interest include, but are not limited to, the following topics: - Human clinical trials of coffee or caffeine use in relation to disease or intermediate phenotypes. - Epidemiological studies of habitual coffee or caffeine intake in relation to human health, among the general public, as well as, among special populations (i.e., children, pregnant women, diabetics, cancer patients, hypertensives, etc.) - Mechanisms of action of nutrients and other bioactive components of coffee/caffeine. - Studies integrating genetic or physiological markers of coffee/caffeine intake to investigations of coffee and health.

This volume synthesizes and evaluates major theories, research, and applications in the psychology of men and masculinities--a thriving, growing field dedicated to the study of how men's lives shape, and are shaped by, sex and gender. "

Very few doctors and scientists receive any sort of systematic training in publishing, editing, and reviewing scholarly articles, despite the central importance of that work for scientific research and for their careers. Medical and Scientific Publishing will help fill the gap and help readers to: Understand processes of scientific and medical publishing Understand the role of an academic in medical publishing Become a better scientific communicator Develop skills to effectively serve as the editor of a medical journal Medical and Scientific Publishing is based on a successful course at the University of Michigan Medical School for third and fourth year medical students. The course teaches students not just how to write scientific and medical articles, but addresses key issues surrounding copyright, ethics, open access and much more. Students will build a strong foundation on how to do peer review and how to be authors and editors which are important skills in building a professional career. Covers a full range of essential information – explanation of publishing licenses, copyright and permissions, how to do peer review, how to write effectively, how journal publishing works, and much more Emphasizes rigor, quality, and scientific integrity in writing, editing, and publishing Focuses on authorship and editorial skills by experienced authors and publishers

Membrane Physiology (Second Edition) is a soft-cover book containing portions of Physiology of Membrane Disorders (Second Edition). The parent volume contains six major sections. This text encompasses the first three sections: The Nature of Biological Membranes, Methods for Studying Membranes, and General Problems in Membrane Biology. We hope that this smaller volume will be helpful to individuals interested in general physiology and the methods for studying general physiology. THOMAS E. ANDREOLI JOSEPH F. HOFFMAN DARRELL D. FANESTIL STANLEY G. SCHULTZ vii Preface to the Second Edition The second edition of Physiology of Membrane Disorders represents an extensive revision and a considerable expansion of the first edition. Yet the purpose of the second edition is identical to that of its predecessor, namely, to provide a rational analysis of membrane transport processes in individual membranes, cells, tissues, and organs, which in turn serves as a frame of reference for rationalizing disorders in which derangements of membrane transport processes play a cardinal role in the clinical expression of disease. As in the first edition, this book is divided into a number of individual, but closely related, sections. Part V represents a new section where the problem of transport across epithelia is treated in some detail. Finally, Part VI, which analyzes clinical derangements, has been enlarged appreciably.

This volume provides state-of-the-art techniques for studying various aspects of cholesterol homeostasis, including its uptake, synthesis and efflux from the cell, as well as its trafficking within the cell. Chapters also cover techniques for studying the regulation of cholesterol homeostasis at both the transcriptional and post-translational levels, as well as studying the membrane topology and structure of cholesterol-related proteins. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Cholesterol Homeostasis: Methods and Protocols aims to provide key techniques in tackling the investigation of cholesterol homeostasis.

This volume provides recent advances in the field of biophysics of membrane proteins. Chapters are divided into several parts: detailing biochemistry and functional analysis, experimental and theoretical structural determinations, membrane protein dynamics, and conformation studies. Written in the highly successful Methods in Molecular Biology series format, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and cutting-edge, Biophysics of Membrane Proteins: Methods and Protocols aims to provide comprehensive protocols with notes to help further the understanding of key membrane protein structure and function for students, academics, and industrial researchers.

Today's physician education system produces trained doctors with strong scientific underpinnings in biological and physical sciences as well as supervised practical experience in delivering care. Significant financial public support underlies the graduate-level training of the nation's physicians. Two federal programs--Medicare and Medicaid--distribute billions each year to support teaching hospitals and other training sites that provide graduate medical education. Graduate Medical Education That Meets the Nation's Health Needs is an independent review of the goals, governance, and financing of the graduate medical education system. This report focuses on the extent to which the current system supports or creates barriers to producing a physician workforce ready to provide high-quality, patient-centered, and affordable health care and identifies opportunities to maximize the leverage of federal funding toward these goals. Graduate Medical Education examines the residency pipeline, geographic distribution of generalist and specialist clinicians, types of training sites, and roles of teaching and academic health centers. The recommendations of Graduate Medical Education will contribute to the production of a better prepared physician workforce, innovative graduate medical education programs, transparency and accountability in programs, and stronger planning and oversight of the use of public funds to support training. Teaching hospitals, funders, policy makers, institutions, and health care organizations will use this report as a resource to assess and improve the graduate medical education system in the United States.

The microbial engineering technologies have been identified as an essential and important subject area of engineering and applied biological sciences. A microbial engineer works on the biological, chemical and engineering aspects of biotechnology, manipulating microbes and developing new uses for microbes. In agriculture, bioprocess engineering, in biotechnology, genetic engineering, microbial vaccines, and the development of bionanotechnology, microbial engineering could be recognized as high potential technologies in the current scenario for economic development. Scientists and engineers are motivated for sustainable green technology as a part of an upcoming industrial revolution turning more and more to processes involving microorganisms. Applications of Microbial Engineering provides a better understanding of industrially important genetically manipulated and engineered prokaryotic and eukaryotic cell systems. The content of this book are based on most recent developments in microbial

engineering. The contributions by specialists on the respective topics provide a profound scientific basis for further research. It is expected that this book will be a valuable resource for researchers as well as students dealing with microbiology and biotechnology.

This volume emphasizes the involvement of all facets of biology in the analysis of environmentally controlled movement responses. This includes biophysics, biochemistry, molecular biology and as an integral part of any approach to a closer understanding, physiology. The initial euphoria about molecular biology as the final solution for any problem has dwindled and the field agrees now that only the combined efforts of all facets of biology will at some day answer the question posed more than hundred years ago: "How can plants see?". One conclusion can be drawn from the current knowledge as summarized in this volume. The answer will most likely not be the same for all systems.

Microscale hydrogels are potentially useful materials for controlling cellular behavior to mimic native microenvironments for tissue engineering applications. In this chapter, various fabrication techniques to generate microscale hydrogels and their applications in tissue engineering have been outlined. In addition, we provide examples of microscale hydrogels with different physical and chemical properties for generation of tissue constructs. Finally, we discuss potential future directions in fabrication of hydrogels to address challenges in tissue engineering. It is expected that these techniques will enable engineering of three-dimensional (3D) structures with controlled features for the formation of functional tissues and organs.

The Advances in Pharmacology series presents a variety of chapters from the best authors in the field. Includes the authority and expertise of leading contributors in pharmacology Presents the latest release in the Advances in Pharmacology series

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