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SHANE JAYLA

Molecular Cell Biology Cambridge University Press
Solomon, Martin, Martin and Berg's BIOLOGY--often described as the best majors' text for learning Biology--is also a complete teaching program. The integrated, inquiry-based learning system guides students through every chapter with key concepts at the beginning of each chapter and learning objectives for each section. End-of-section Checkpoint questions encourage students to review key points before moving on. A chapter summary further reinforces learning objectives, followed by an opportunity for students to test their understanding. The eleventh edition offers expanded integration of the text's five guiding themes of Biology--the evolution of life, the transmission of biological information, the flow of energy through living systems, interactions among biological systems and the inter-relationship of structure and function. Important Notice: Media content referenced within the product description or the product text may not be available in the ebook version.
Principles of Cell Biology Bushra Arshad
There is growing enthusiasm in the scientific community about the prospect of mapping and sequencing the human genome, a monumental project that will have far-reaching consequences for medicine, biology, technology, and other fields. But how will such an effort be organized and funded? How will we develop the new technologies that are needed? What new legal, social, and ethical questions will be raised? Mapping and Sequencing the Human Genome is a blueprint for this proposed project. The authors offer a highly readable explanation of the technical aspects of genetic mapping and sequencing, and they recommend specific interim and long-range research goals, organizational strategies, and funding levels. They also outline some of the legal and social questions that might arise and urge their early consideration by policymakers.
Molecular Biology Notes PDF Macmillan Higher Education
Newly revised and updated, the Fourth Edition is a comprehensive guide through the basic molecular processes and genetic phenomena of both prokaryotic and eukaryotic cells. Written for the undergraduate and first year graduate students, the text has been updated with the latest data in the field. It incorporates a biochemical approach as well as a discovery approach that provides historical and experimental information within the context of the narrative.
Fundamentals of Molecular Structural Biology Springer
Biology for AP® Courses covers the scope and sequence requirements of a typical two-semester Advanced Placement® biology course. The text provides comprehensive coverage of foundational research and core biology concepts through an evolutionary lens. Biology for AP® Courses was designed to meet and exceed the requirements of the College Board's AP® Biology framework while allowing significant flexibility for instructors. Each section of the book includes an introduction based on the AP® curriculum and includes rich features that engage students in scientific practice and AP® test preparation; it also highlights careers and research opportunities in biological sciences.
Encyclopedia of Astrobiology Macmillan
The search for life in the solar system and beyond has to date been governed by a model based on what we know about life on Earth (terran life). Most of NASA's mission planning is focused on locations where liquid water is possible and emphasizes searches for structures that resemble cells in terran organisms. It is possible, however, that life exists that is based on chemical reactions that do not involve carbon compounds, that occurs in solvents other than water, or that involves oxidation-reduction reactions without oxygen gas. To assist NASA incorporate this possibility in its efforts to search for life, the NRC was asked to carry out a study to evaluate whether nonstandard biochemistry might support life in solar system and conceivable extrasolar environments, and to define areas to guide research in this area. This book presents an exploration of a limited set of hypothetical chemistries of life, a review of current knowledge concerning key questions or hypotheses about nonterran life, and suggestions for future research.
Molecular Biology of the Cell World Scientific
The classic personal account of Watson and Crick’s groundbreaking discovery of the structure of DNA, now with an introduction by Sylvia Nasar, author of A Beautiful Mind. By identifying the structure of DNA, the molecule of life, Francis Crick and James Watson revolutionized biochemistry and won themselves a Nobel Prize. At the time, Watson was only twenty-four, a young scientist hungry to make his mark. His uncompromisingly honest account of the heady days of their thrilling sprint against other world-class researchers to solve one of science’s greatest mysteries gives a dazzlingly clear picture of a world of brilliant scientists with great gifts, very human ambitions, and bitter rivalries. With humility unspoiled by false modesty, Watson relates his and Crick’s desperate efforts to beat Linus Pauling to the Holy Grail of life sciences, the identification of the basic building block of life. Never has a scientist been so truthful in capturing in words the flavor of his work.
Cell Biology E-Book Princeton University Press
The study of parasitic organisms at the molecular level has yielded fascinating new insights of great medical, social, and economical importance, and has pointed the way for the treatment and prevention of the diseases they cause. Biochemistry and Molecular Biology of Parasites presents an up-to-date account of this modern scientific discipline in a manner that allows and encourages the reader to place the biochemistry and molecular biology of these organisms in their biological context. The chapters are cross-referenced and grouped in an arrangement that provides a fully integrated whole, and permits the reader to create a composite of the biochemical function of these organisms. Individual chapter includes those devoted to metabolism, in both aerobic and anaerobic protozoa; antioxidant mechanisms; parasite surfaces; organelles; invasion mechanisms; and chemotherapy. The helminths are discussed not only from the point of view of their cellular biochemistry and metabolism, but also with respect to both their integrated functions such as neurochemistry, structure and functions of surfaces, and reproduction. Written by expert investigators, this book will be of interest to all experienced researchers, graduate students, and to the newcomer eager to become familiar with the biochemistry and molecular biology of parasites.
Principles and Techniques of Biochemistry and Molecular Biology
Cells: Molecules and Mechanisms
Gene Therapy for Viral Infections provides a comprehensive review of the broader field of nucleic acid and its use in treating viral infections. The text bridges the gap between basic science and important clinical applications of the technology, providing a systematic, integrated review of the advances in nucleic acid-based antiviral drugs and the potential advantages of new technologies over current treatment options. Coverage begins with the fundamentals, exploring varying topics, including harnessing RNAi to silence viral gene expression, antiviral gene editing, viral gene therapy vectors, and non-viral vectors. Subsequent sections include detailed coverage of the developing use of gene therapy for the treatment of specific infections, the principles of rational design of antivirals, and the hurdles that currently face the further advancement of gene therapy technology. Provides coverage of gene therapy for a variety of infections, including HBV, HCV, HIV, hemorrhagic fever viruses, and respiratory and other viral infections Bridges the gap between the basic science and the important medical applications of this technology Features a broad approach to the topic, including an essential overview and the applications of gene therapy, synthetic RNA, and other antiviral strategies that involve nucleic acid engineering Presents perspectives on the future use of nucleic acids as a novel class of antiviral drugs Arms the reader with the cutting-edge information needed to stay abreast of this developing field
Rudiments of Biology Macmillan
Concepts of Biology is designed for the single-semester introduction to biology course for non-science majors, which for many students is their only college-level science course. As such, this course represents an important opportunity for students to

develop the necessary knowledge, tools, and skills to make informed decisions as they continue with their lives. Rather than being mired down with facts and vocabulary, the typical non-science major student needs information presented in a way that is easy to read and understand. Even more importantly, the content should be meaningful. Students do much better when they understand why biology is relevant to their everyday lives. For these reasons, Concepts of Biology is grounded on an evolutionary basis and includes exciting features that highlight careers in the biological sciences and everyday applications of the concepts at hand.We also strive to show the interconnectedness of topics within this extremely broad discipline. In order to meet the needs of today's instructors and students, we maintain the overall organization and coverage found in most syllabi for this course. A strength of Concepts of Biology is that instructors can customize the book, adapting it to the approach that works best in their classroom. Concepts of Biology also includes an innovative art program that incorporates critical thinking and clicker questions to help students understand--and apply--key concepts.

Medical Biochemistry National Academies Press

Biological Macromolecules: Bioactivity and Biomedical Applications presents a comprehensive study of biomacromolecules and their potential use in various biomedical applications. Consisting of four sections, the book begins with an overview of the key sources, properties and functions of biomacromolecules, covering the foundational knowledge required for study on the topic. It then progresses to a discussion of the various bioactive components of biomacromolecules. Individual chapters explore a range of potential bioactivities, considering the use of biomacromolecules as nutraceuticals, antioxidants, antimicrobials, anticancer agents, and antidiabetics, among others. The third section of the book focuses on specific applications of biomacromolecules, ranging from drug delivery and wound management to tissue engineering and enzyme immobilization. This focus on the various practical uses of biological macromolecules provide an interdisciplinary assessment of their function in practice. The final section explores the key challenges and future perspectives on biological macromolecules in biomedicine. Covers a variety of different biomacromolecules, including carbohydrates, lipids, proteins, and nucleic acids in plants, fungi, animals, and microbiological resources Discusses a range of applicable areas where biomacromolecules play a significant role, such as drug delivery, wound management, and regenerative medicine Includes a detailed overview of biomacromolecule bioactivity and properties Features chapters on research challenges, evolving applications, and future perspectives

Plant Virology Springer

Medicinal Chemistry of Anticancer Drugs, Second Edition, provides an updated treatment from the point of view of medicinal chemistry and drug design, focusing on the mechanism of action of antitumor drugs from the molecular level, and on the relationship between chemical structure and chemical and biochemical reactivity of antitumor agents. Antitumor chemotherapy is a very active field of research, and a huge amount of information on the topic is generated every year. Cytotoxic chemotherapy is gradually being supplemented by a new generation of drugs that recognize specific targets on the surface or inside cancer cells, and resistance to antitumor drugs continues to be investigated. While these therapies are in their infancy, they hold promise of more effective therapies with fewer side effects. Although many books are available that deal with clinical aspects of cancer chemotherapy, this book provides a sorely needed update from the point of view of medicinal chemistry and drug design. Presents information in a clear and concise way using a large number of figures Historical background provides insights on how the process of drug discovery in the anticancer field has evolved Extensive references to primary literature

Advanced Molecular Biology CRC Press

Advanced Molecular Biology emphasises the unifying principles and mechanisms of molecular biology, with frequent use of tables and boxes to summarise experimental data and gene and protein functions. Extensive cross-referencing between chapters is used to reinforce and broaden the understanding of core concepts. This is the ideal source of comprehensive, authoritative and up-to-date information for all those whose work is in the field of molecular biology. This book emphasises the unifying principles and mechanisms of molecular biology, with frequent use of tables and boxes to summarise experimental data and gene and protein functions.

Encyclopedia of Genetics Springer

Maintenance of the information embedded in the genomic DNA sequence is essential for life. DNA polymerases play pivotal roles in the complex processes that maintain genetic integrity. Besides their tasks in vivo, DNA polymerases are the workhorses in numerous biotechnology applications such as the polymerase chain reaction (PCR), cDNA cloning, next generation sequencing, nucleic acids based diagnostics and in techniques to analyze ancient and otherwise damaged DNA (e.g. for forensic applications). Moreover, some diseases are related to DNA polymerase defects and chemotherapy through inhibition of DNA polymerases is used to fight HIV, Herpes and Hepatitis B and C infections. This book focuses on (i) biology of DNA polymerases, (ii) medical aspects of DNA polymerases and (iii) biotechnological applications of DNA polymerases. It is intended for a wide audience from basic scientists, to diagnostic laboratories, to companies and to clinicians, who seek a better understanding and the practical use of these fascinating enzymes. Contents: PrefaceAbout the AuthorsHistory of DNA PolymerasesDNA Polymerases: General AspectsHuman DNA Polymerases: From Structure to FunctionHuman DNA Polymerases in Different DNA TransactionsDNA Polymerases and Human DiseasesHuman DNA Polymerases and ChemotherapyPolymerases Chain Reaction and Heat-Stable DNA Polymerases: The History and the Potential of Evolved DNA PolymerasesSynthetic Evolution of DNA Polymerases for Novel PropertiesMarket for Evolved DNA Polymerases in Routine and Medical Applications Readership: Academic and industry research scientists, from PhD students to senior professors, as well as R&D specialists and marketing experts working in biotech and pharmaceutical companies. Keywords: DNA Polymerase;DNA Replication;DNA Repair;DNA Recombination, PCR;Cancer;Neurological Diseases;Medicine;Biology;Chemotherapy;Structural Biology;Enzymology;BiotechnologyReview: Key Features: The only book to merge basic science, biotechnological applications and marketing opportunities of DNA polymerasesThe most extensive literature coverage of the field, with more than 1,000 cited references and updated with the most recent contributions received by scientists all over the worldWritten by four leading experts in DNA polymerases, it gives the most complete overview of the field from its historical origins to the latest developments

Chemical Synthetic Biology Jones & Bartlett Publishers

The new 12th edition of Life: The Science of Biology continues to be engaging, active, and focused on teaching the skills that students need to master the majors biology course. New pedagogical features work in conjunction with powerful updates to the online suite of materials in Achieve to support the mission of Life by teaching students the skills and understanding of experimentation and data they need to succeed in introductory biology and ultimately in their future STEM careers. Life's potent combination of expertly crafted media, assessment, pedagogy and engagement makes this new edition the best resource yet for biology students.

Molecular Cell Biology Academic Press

New, fully updated edition of bestselling textbook, expanded to include techniques from across the biosciences.

Life: The Science of Biology Garland Science

This book discusses the emergence of life, the development of the individual, and the study of the interaction between individuals and species. It gives the student of theoretical biology some idea of the flavor of current research in the field.

Academic Press

The seminal text Plant Virology is now in its fifth edition. It has been 10 years since the publication of the fourth edition, during which there has been an explosion of conceptual and factual advances. The fifth edition of Plant Virology updates and revises many details of the previous edition while retaining the important earlier results that constitute the field's conceptual foundation. Revamped art, along with fully updated references and increased focus on molecular biology, transgenic resistance, aphid transmission, and new, cutting-edge topics, bring the volume up to date and maintain its value as an essential reference for researchers and students in the field. Thumbnail sketches of each genera and family groups Genome maps of all genera for which they are known Genetic engineered resistance strategies for virus disease control Latest understanding of virus interactions with plants, including gene silencing Interactions between viruses and insect, fungal, and nematode vectors Contains over 300 full-color illustrations

Molecular Structure of Nucleic Acids Ardent Media

This text presents the fundamentals of biochemistry and related topics for all those pursuing medical or other health-related fields such as clinical chemistry, medical technology, or pharmacology.

Cells: Molecules and Mechanisms Elsevier

The sixth edition provides an authoritative and comprehensive vision of molecular biology today. It presents developments in cell birth, lineage and death, expanded coverage of signaling systems and of metabolism and movement of lipids.

Medicinal Chemistry of Anticancer Drugs Elsevier Health Sciences

This book describes the fundamental concepts, the latest developments and the outlook of the field of nanozymes (i.e., the catalytic nanomaterials with enzymatic characteristics). As one of today's most exciting fields, nanozyme research lies at the interface of chemistry, biology, materials science and nanotechnology. Each of the book's six chapters explores advances in nanozymes. Following an introduction to the rise of nanozymes research in the course of research on natural enzymes and artificial enzymes in Chapter 1, Chapters 2 through 5 discuss different nanomaterials used to mimic various natural enzymes, from carbon-based and metal-based nanomaterials to metal oxide-based nanomaterials and other nanomaterials. In each of these chapters, the nanomaterials' enzyme mimetic activities, catalytic mechanisms and key applications are covered. In closing, Chapter 6 addresses the current challenges and outlines further directions for nanozymes. Presenting extensive information on nanozymes and supplemented with a wealth of color illustrations and tables, the book offers an ideal guide for readers from disparate areas, including analytical chemistry, materials science, nanoscience and nanotechnology, biomedical and clinical engineering, environmental science and engineering, green chemistry, and novel catalysis.