Topics For A Biology Research Paper

Current Topics in Developmental Biology
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Contemporary Topics in Immunobiology
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Translational Systems Biology
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The Role of Theory in Advancing 21st-Century Biology
Research Priorities For The Next Decade
A Practical Approach
Proceedings of an International Symposium held in Kyoto, November 10–15, 1985
Biological Collections
Tools and Applications
Essays on Developmental Biology
Modern Research and Educational Topics in Microscopy
Catalyzing Transformative Research

From Planning and Preparation to Grant Application and Publication
Current Progress in Biological Research
Applications in biology and medicine
Retrieving Theological Psychology
The Logic of the Body

CHAMBERS AIYANA

Current Topics in Developmental Biology
Frontiers Media SA
In recent years, cancer stem cells have been recognized as important component in carcinogenesis and they seem to form the basis of many (if not all) tumor types. Cancer stem cells or "cancer cell like stem cells" have been isolated from various cancers of different origin (blood, breast, brain, skin, head and neck, thyroid, cervix, lung, retina, colon, pancreas and so on). Cancer stem cells - rare cells with indefinite proliferative potential that drive the formation and growth of tumours- seem to show intriguing relationships with physiological stem cells. Specifically, these cancer cells show significant similarities in the mechanisms that regulate self-renewal of normal stem cells. Moreover, tumour cells might directly arise from normal stem cells. Further, the cellular biology of cancer

stem cells show a lot of similarities with normal stem cells.

Advances in Biological Science Research

Academic Press

Cell-Free Synthetic BiologyFrontiers Media SASelected Topics in Environmental BiologyBased on the Sessions on Environmental Biology Held at the XXVI International Congress of Physiological Sciences, New Delhi, October 20-26, 1974Elsevier

Contemporary Topics in Immunobiology

Shearwater Books

This volume represents the edited proceedings of the International Symposium on Mathematical Biology held in Kyoto, November 10-15, 1985. The symposium was or ganized by an international committee whose members are: E. Teramoto, M. Yamaguti, S. Amari, S.A. Levin, H. Matsuda, A. Okubo, L.M. Ricciardi, R. Rosen, and L.A. Segel. The symposium included technical sessions with a total of 11 invited papers, 49 contributed papers and a poster session where 40 papers were displayed. These Proceedings consist of selected papers from this symposium. This symposium was the second Kyoto meeting on mathematical topics in biology. The first was held in conjunction with the Sixth International Biophysics Congress in 1978. Since then this field of science has grown enormously, and the number of scientists in the field has rapidly increased. This is also the case in Japan. About 80

young japanese scientists and graduate students participated this time. . The sessions were divided into 4 ; , categories: 1) Mathematical Ecology and Population Biology, 2) Mathematical Theory of Developmental Biology and Morphogenesis, 3) Theoretical Neurosciences, and 4) Cell Kinetics and Other Topics. In every session, there were stimulating and active discussions among the participants. We are convinced that the symposium was highly successful in transmitting scientific information across disciplines and in establishing fruitful contacts among the participants. We owe this success to the cooperation of all participants.

Research Methodology in the Medical and Biological Sciences Academic Press This second volume of Contemporary Topics in Immunobiology considers many aspects of thymus dependency in order to exemplify the role of the thy mus in different species and different immunological responses. It is not in tended to be a compendium of the responses which have been shown to be thymus dependent but rather to illustrate for the reader the criteria he should apply in thinking about the significance of the thymus in immune responses. We are grateful to the editors and publishers of the Annals of the New York Academy of Science, the Australian Journal of Experimental Biology and Medical Science, Clinical and Experimental Immunology,

Immunology, the Journal of Experimental Medicine, the Journal of Immunology, Laboratory Investigation, Nature, and the Proceedings of the Royal Society of Medicine and to Springer-Verlag, Berlin, for permission to reproduce illustrations. Specific references are given in the text. We would also like to thank the contributors for their time and energy and willingness to submit to the editorial red pencils. The exercise of these censori ous instruments meant that the manuscripts had to be reorganized and retyped. Mrs. J. Pettis, Mrs. A. Inglefield, and Miss M. Butt all helped, and we are most grateful to them. A.J.S.D. R.L.e.

Advances in Seed Biology Elsevier Advances in Biological Science Research: A Practical Approach provides discussions on diverse research topics and methods in the biological sciences in a single platform. This book provides the latest technologies, advanced methods, and untapped research areas involved in diverse fields of biological science research such as bioinformatics, proteomics, microbiology, medicinal chemistry, and marine science. Each chapter is written by renowned researchers in their respective fields of biosciences and includes future advancements in life science research. Discusses various research topics and methods in the biological sciences in a single platform Comprises the latest updates in advanced research

techniques, protocols, and methods in biological sciences Incorporates the fundamentals, advanced instruments, and applications of life science experiments Offers troubleshooting for many common problems faced while performing research experiments

Northeast Pacific Shark Biology, Research and Conservation Part B

Frontiers Media SA

Principles of Cloning, Second Edition is the fully revised edition of the authoritative book on the science of cloning. The book presents the basic biological mechanisms of how cloning works and progresses to discuss current and potential applications in basic biology, agriculture, biotechnology, and medicine. Beginning with the history and theory behind cloning, the book goes on to examine methods of micromanipulation, nuclear transfer, genetic modification, and pregnancy and neonatal care of cloned animals. The cloning of various species—including mice, sheep, cattle, and non-mammals—is considered as well. The Editors have been involved in a number of breakthroughs using cloning technique, including the first demonstration that cloning works in differentiated cells done by the Recipient of the 2012 Nobel Prize for Physiology or Medicine – Dr John Gurdon; the cloning of the first mammal from a somatic cell – Drs Keith Campbell and Ian Wilmut; the demonstration that cloning can reset the

biological clock - Drs Michael West and Robert Lanza; the demonstration that a terminally differentiated cell can give rise to a whole new individual – Dr Rudolf Jaenisch and the cloning of the first transgenic bovine from a differentiated cell – Dr Jose Cibelli. The majority of the contributing authors are the principal investigators on each of the animal species cloned to date and are expertly qualified to present the state-of-the-art information in their respective areas. First and most comprehensive book on animal cloning, 100% revised Describes an in-depth analysis of current limitations of the technology and research areas to explore Offers cloning applications on basic biology, agriculture, biotechnology, and medicine

Principles of Cloning

Elsevier

Northeast Pacific Shark Biology, Research and Conservation, Part B, Volume 78, the latest release in the Advances in Marine Biology series contains updated chapters that focus on a variety of topics, including, but not limited to, an Introduction to Northeast Pacific shark biology, ecology, and conservation, Shark Interactions with Directed and Incidental Fisheries in the Northeast Pacific Ocean: historic and current encounters and challenges for shark conservation, An Introduction to modeling abundance and demographic parameters in shark populations, and Sharks in Captivity: The

Role of Husbandry, Breeding, Education and Citizen Science in Shark Conservation. Specialty areas in this longstanding series include marine science, both applied and basic, a wide range of topical areas from all areas of marine ecology, oceanography, fisheries management and molecular biology, and the full range of geographic areas from polar seas, to tropical coral reefs are included making this an ideal reference and resource for postgraduates and researchers in a variety of fields. Reviews articles on the latest advances in marine biology Authored by leading figures in their respective fields of study Presents materials that are widely used by managers, students, and academic professionals in the marine sciences Provides value to anyone studying bottlenose dolphins, deep-sea macrofauna, marine invertebrates, pinna nobilis and ecology, amongst other study areas

Molecular Biology of Neurodegenerative Diseases Academic Press Research in Medical and Biological Sciences covers the wide range of topics that a researcher must be familiar with in order to become a successful biomedical scientist. Perfect for aspiring as well as practicing professionals in the medical and biological sciences, this publication discusses a broad range of topics that are common yet not traditionally considered part of formal curricula, including philosophy of science, ethics, statistics,

and grant applications. The information presented in this book also facilitates communication across conventional disciplinary boundaries, in line with the increasingly multidisciplinary nature of modern research projects. Covers the breadth of topics that a researcher must understand in order to be a successful experimental scientist Provides a broad scientific perspective that is perfect for students with various professional backgrounds Contains easily accessible, concise material about diverse methods Includes extensive online resources such as further reading suggestions, data files, statistical tables, and the StaTable application package Emphasizes the ethics and statistics of medical and biological sciences

Research Topics in Molecular and Cellular Biology Academic Press This book covers recent advances and future trends in yeast synthetic biology, providing readers with an overview of computational and engineering tools, and giving insight on important applications. Yeasts are one of the most attractive microbial cell factories for the production of a wide range of valuable products, including pharmaceuticals, nutraceuticals, cosmetics, agrochemicals and biofuels. Synthetic biology tools have been developed to improve the metabolic engineering of yeasts in a faster and more reliable manner. Today, these tools are used to make synthetic

pathways and rewiring metabolism even more efficient, producing products at high titer, rate, and yield. Split into two parts, the book opens with an introduction to rational metabolic pathway prediction and design using computational tools and their applications for yeast systems and synthetic biology. Then, it focuses on the construction and assembly of standardized biobricks for synthetic pathway engineering in yeasts, yeast cell engineering and whole cell yeast-based biosensors. The second part covers applications of synthetic biology to produce diverse and attractive products by some well-known yeasts. Given its interdisciplinary scope, the book offers a valuable asset for students, researchers and engineers working in biotechnology, applied microbiology, metabolic engineer ing and synthetic biology.

Advances in Computational Biology National Academies Press This topic has been realized, and is in collaboration with Dr. Constanze Pentzold, Post Doctoral Researcher at the Institute of Human Genetics, University Hospital Jena.

Globalization, Biosecurity, and the Future of the Life Sciences Academic Press Current Topics in Developmental Biology provides a comprehensive survey of the major topics in the field of developmental biology. The volumes are valuable to researchers in animal and plant development,

as well as to students and professionals who want an introduction to cellular and molecular mechanisms of development. The series has recently passed its 30-year mark, making it the longest-running forum for contemporary issues in developmental biology. This volume contributes eight vital chapters in the latest developmental biology research. Over 280 pages of the latest research in developmental biology Includes the latest research in stem and srogenitor sells and their formation of the Pulmonary Vascular Covers the transplantation of undifferentiated, bone-marrow derived stem cells Offers an explanation of protein-protein interactions of the developing enamel matrix

Research Methods in Human Skeletal Biology

National Academies Press

Summary This book is a definitive overview of the current 'state of the art' in cell biology. It is based on papers presented by leading researchers at the Spanish Society for Cell Biology's XIV Congress - a Congress that strives to achieve scientific excellence. Each participant was asked to prepare a 'mini review' of current and likely future development in their area of research. This book is based on those reviews. As such, it is therefore an analysis of current and future trends. Key Features Contains contributions from some of the world's leading researchers. The book is multidisciplinary, covering almost all topics in cell

biology: from basic to applied cell biology, and a wide variety of models: from in vitro to vivo models, ranging from fish to rodents and humans. Each 'mini review' is an easy-read piece, describing the state of the art on a topic with clear language and in a summary format. The mini review format makes the book attractive not only to readers involved in cell biology research and teaching, but also professionals from other disciplines and students. The book takes a truly multidisciplinary approach; it covers a wide array of topics, and the book reflects how cell biology interacts with other disciplines The Editors Jose Becerra is Professor of Cell Biology at the University of Malaga (Spain) since 1989. He has been Dean Secretary, Vice-Dean and Dean of the Faculty of Sciences of Malaga, and is now the Head of the Department of Cell Biology, Genetics and Physiology. From 2001 to 2003 he was the Director of the Andalusian Laboratory of Biology (LAB, Seville), which was converted in the Andalusian Centre for Developmental Biology (CABD) under his term. He is a member of the Technical Committee of the National Stem Cell Bank since 2007, patron of the Board of Trustees of IMABIS Foundation (Mediterranean Institute for the Advance of Biotechnology and Health Research), coordinator of the Biomaterials and Tissue Engineering Area of the the Biomedical Research Networking

Center in Bioengineering, Biomaterials and Nanomedicine (CIBER-BBN), and member of the Direction Committee of the CIBER-BBN. Leonor Santos-Ruiz is Senior Researcher of the CIBER-BBN network at the Andalusian Center for Nanomedicine and Biotechnology (BIONAND). She started her career studying the cellular and molecular basis of lower vertebrates' amazing ability for tissue regeneration, with a special attention to bone and spinal cord repair. Readership Cell biology academics and researchers Contents Introduction Dynamics of cell compartments The intracellular trafficking Cell signaling Autophagy, apoptosis and cell homeostasis Cell biology of aging Plant cell biology Methods in cell biology Applied cell biology Cell biology of cancer Cell therapies and tissue engineering Neurodegeneration and cell biology Nanotechnology and cell biology: challenges and opportunities"

Translational Systems Biology Academic Press Echinostomes are ubiquitous intestinal flatworm parasites of vertebrates and are of importance in human and veterinary medicine and wildlife diseases. Echinostomes can be maintained easily and inexpensively in the laboratory and provide good models for biological research ranging from the molecular to the organismal. Considerable but scattered literature has been published on the subject of echinostomes

and a synthesis of this wide range of topics has now been achieved with the publication of this book, which presents a wide range of topics in experimental biology related to the use of echinostomes as laboratory models. It will have a special appeal to advanced undergraduates and graduate students in parasitology and should also appeal to professional parasitologists, physicians, veterinarians, wildlife disease biologists, and any biomedical scientists interested in new model systems for studies in experimental biology.

Concepts and Practice for the Future of Biomedical Research Springer Science & Business Media

It has become more evident that many microalgae respond very differently than land plants to diverse stimuli. Therefore, we cannot reduce microalgae biology to what we have learned from land plants biology. However, we are still at the beginning of a comprehensive understanding of microalgae biology. Microalgae have been posited several times as prime candidates for the development of sustainable energy platforms, making thus the in-depth understanding of their biological features an important objective. Thus, the knowledge related to the basics of microalgae biology must be acquired and shared rapidly, fostering the development of potential applications. Microalgae biology has been studied for more

than forty years now and more intensely since the 1970's, when genetics and molecular biology approaches were integrated into the research programs. Recently, studies on the molecular physiology of microalgae have provided evidences on the particularities of these organisms, mainly in model species, such as Chlamydomonas reinhardtii. Of note, cellular responses in microalgae produce very interesting phenotypes, such as high lipid content in nitrogen deprived cells, increased protein content in cells under high CO2 concentrations, the modification of flagella structure and motility in basal body mutant strains, the different ancient proteins that microalgae uses to dissipate the harmful excess of light energy, the hydrogen production in cells under sulfur deprivation, to mention just a few. Moreover, several research groups are using high-throughput and data-driven technologies, including "omics" approaches to investigate microalgae cellular responses at a system-wide level, revealing new features of microalgae biology, highlighting differences between microalgae and land plants. It has been amazing to observe the efforts towards the development and optimization of new technologies required for the proper study of microalgae, including methods that opened new paths to the investigation of important processes such as regulatory

mechanisms, signaling crosstalk, chemotactic mechanisms, light responses, chloroplast controlled mechanisms, among others. This is an exciting moment in microalgae research when novel data are been produced and applied by research groups from different areas, such as bioprocesses and biotechnology. Moreover, there has been an increased amount of research groups focused in the study of microalgae as a sustainable source for bioremediation, synthesis of bioproducts and development of bioenergy. Innovative strategies are combining the knowledge of basic sciences on microalgae into their applied processes, resulting in the progression of many applications that hopefully, will achieve the necessary degree of optimization for economically feasible large-scale applications. Advances on the areas of basic microalgae biology and novelties on the essential cellular processes were revealed. Progress in the applied science showed the use of the basic science knowledge into fostering translational research, proposing novel strategies for a sustainable world scenario. In this present e-book, articles presented by research groups from different scientific areas showed, successfully, the increased development of the microalgae research. Herewith, you will find articles ranging from bioprospecting regional microalgae species, through advances in microalgae molecular

physiology to the development of techniques for characterization of biomass and the use of biomass into agriculture and bioenergy production. This e-book is an excellent source of knowledge for those working with microalgae basic and applied sciences, and a great opportunity for researchers from both areas to have an overview of the amazing possibilities we have for building an environmentally sustainable future once the knowledge is translated into novel applications.

Biological Research in Aquatic Science

Springer Science & Business Media

Proceedings of The 2009 International Conference on Bioinformatics and Computational Biology in Las Vegas, NV, July 13-16, 2009. Recent advances in Computational Biology are covered through a variety of topics. Both inward research (core areas of computational biology and computer science) and outward research (multi-disciplinary, Inter-disciplinary, and applications) will be covered during the conferences. These include: Gene regulation, Gene expression databases, Gene pattern discovery and identification, Genetic network modeling and inference, Gene expression analysis, RNA and DNA structure and sequencing, Biomedical engineering, Microarrays, Molecular sequence and structure databases, Molecular dynamics and simulation, Molecular

sequence classification, alignment and assembly, Image processing In medicine and biological sciences, Sequence analysis and alignment, Informatics and Statistics in Biopharmaceutical Research, Software tools for computational biology and bioinformatics, Comparative genomics; and more.

Key Topics in Conservation Biology 2

BoD – Books on Demand

In 2016 Current Topics in Developmental Biology (CTDB) will celebrate its 50th or "golden" anniversary. To commemorate the founding of CTDB by Aron Moscona (1921-2009) and Alberto Monroy (1913-1986) in 1966, a two-volume set of CTDB (volumes 116 and 117), entitled Essays on Development, will be published by Academic Press/Elsevier in early 2016. The volumes are edited by Paul M. Wassarman, series editor of CTDB, and include contributions from dozens of outstanding developmental biologists from around the world. Overall, the essays provide critical reviews and discussion of developmental processes for a variety of model organisms. Many essays relate the history of a particular area of research, others personal experiences in research, and some are quite philosophical. Essays on Development provides a window onto the rich landscape of contemporary research in developmental biology and should be useful to both students and investigators for years to

come. Covers the area of developmental processes for a variety of model organisms International board of authors Part of two 50th Anniversary volumes proving a comprehensive set of reviews edited by Serial Editor Paul M. Wassarman
Advances in Microalgae Biology and Sustainable Applications BoD – Books on Demand
One of the fastest growing scientific disciplines in recent history is conservation biology. A response of the scientific community to the massive environmental changes taking place on Earth, its goal is to enable society to anticipate, prevent, and reduce ecological damage, and to generate the scientific information from which effective conservation strategies and policies can be designed and implemented.In 1989, the Society for Conservation Biology and Island Press produced Research Priorities for Conservation Biology, a slim volume that set forth the findings of experts who had gathered to outline research needs for the near future, and which served as a guidepost for the field throughout the 1990s. In January 2000, leaders of the Society for Conservation Biology convened a similar group to reach consensus on where the field now stands and to determine the major, compelling research priorities for the next decade.
Conservation Biology: Research Priorities for the Next Decade presents the results of that gathering.The book: notes progress or changes in

the state of global biodiversity over the past decade and discusses overarching themes that influence all areas of conservation offers ten chapters by leading experts that summarize the status of knowledge in key areas ranging from marine conservation to ecological restoration to conservation medicine sets forth research priorities for each area describes gaps in current knowledge that are impeding the ability of conservation practitioners to carry out their workA final synthesis chapter brings together cross-cutting themes that integrate the diverse topics within the context of global biodiversity loss, and presents a call to action for scientists and others working in the field.Conservation Biology: Research Priorities for the Next Decade represents an indispensable guide to the research that is most urgently needed to support effective conservation, and will be must reading for anyone involved with the field of conservation biology. National Academies Press Although its importance is not always recognized, theory is an integral part of all biological research. Biologists' theoretical and conceptual frameworks inform every step of their research, affecting what experiments they do, what techniques and technologies they develop and use, and how they interpret their data. By examining how theory can help biologists answer questions like "What are the engineering principles of life?" or "How do cells

really work?" the report shows how theory synthesizes biological knowledge from the molecular level to the level of whole ecosystems. The book concludes that theory is already an inextricable thread running throughout the practice of biology; but that explicitly giving theory equal status with other components of biological research could help catalyze transformative research that will lead to creative, dynamic, and innovative advances in our understanding of life.

Omics Applications for Systems Biology

Academic Press

Are we satisfied with the rate of drug development? Are we happy with the drugs that come to market? Are we getting our money’s worth in spending for basic biomedical research? In Translational Systems Biology, Drs. Yoram Vodovotz and Gary An address these questions by providing a foundational description the barriers facing biomedical research today and the immediate future, and how these barriers could be overcome through the adoption of a robust and scalable approach that will form the underpinning of biomedical research for the future. By using a combination of essays providing the intellectual basis of the Translational Dilemma and reports of examples in the study of inflammation, the content of Translational Systems Biology will remain relevant as technology and knowledge advances bring broad translational

applicability to other diseases. Translational systems biology is an integrated, multi-scale, evidence-based approach that combines laboratory, clinical and computational methods with an explicit goal of developing effective means of control of biological processes for improving human health and rapid clinical application. This comprehensive approach to date has been utilized for in silico studies of sepsis, trauma, hemorrhage, and traumatic brain injury, acute liver failure, wound healing, and inflammation. Provides an explicit, reasoned, and systematic approach to dealing with the challenges of translational science across disciplines Establishes the case for including computational modeling at all stages of biomedical research and healthcare delivery, from early pre-clinical studies to long-term care, by clearly delineating efficiency and costs saving important to business investment Guides readers on how to communicate across domains and disciplines, particularly between biologists and computational researchers, to effectively develop multi- and trans-disciplinary research teams

Chromosome Biology as a Key to Understand Disease Mechanisms, Genome Architecture and Evolution Springer

"Do not be anxious about anything." When it comes to stress and worry, that's all we really need to say, right? Just repent of your anxiety, and everything

will be fine. But emotional life is more complex than this. In The Logic of the Body, Matthew LaPine argues that Protestants must retrieve theological psychology in order to properly understand the emotional life of the human person. With classical and modern resources in tow, LaPine argues that one must not choose between viewing emotions exclusively as either cognitive and volitional on the one hand, or simply a feeling of bodily change on the other. The two "stories" can be reconciled through a robustly theological analysis. In a culture filled with worry and anxiety, The Logic of the Body offers a fresh path within the Reformed tradition.