Physiology Sg May June 2014 Eng

Yeah, reviewing a book **Physiology Sg May June 2014 Eng** could go to your near connections listings. This is just one of the solutions for you to be successful. As understood, expertise does not recommend that you have astonishing points.

Comprehending as without difficulty as conformity even more than supplementary will have enough money each success. adjacent to, the revelation as well as acuteness of this Physiology Sg May June 2014 Eng can be taken as capably as picked to act.

Animal Welfare, Volume I: Animal Welfare in Aquaculture - Physiological Basis and Recent Findings - Marce Herrera 2023-01-03

Mom's Guide to Diastasis Recti - Pamela Ellgen 2017-02-20
Don't let your pregnancy result in a weak core and unsightly belly bulge! With your new baby at home, it's hard to find time to take care of you. But if you have experienced diastasis recti during pregnancy, the best time to repair it is right now. Mom's Guide to Diastasis Recti offers a realistic approach to healing your belly with simple moves that take only minutes each day. With a complete four-part program, Mom's Guide to Diastasis Recti helps with everything from healing your weak abs to sculpting a beautiful post-baby body. It includes: • Prevention tips that strengthen your core before baby • Post-pregnancy exercises gentle enough to perform in the hospital • Daily rehab routines with stretches and toning activities • Advanced maintenance programs to keep your tummy tight This book is also packed with nutrition tips and expert advice that will keep you feeling and looking your best, from three weeks to three years after your pregnancy.

Index Medicus - 2003

Vappro Vbci the Solution for Corrosion Control - Dr. Nelson Cheng PhD 2020-12-10
The global economic cost from corrosion is estimated to be more than US$2.5 trillion, or equivalent to 3.4% of the global GDP. Corrosion costs the U.S. economy close to $300 billion per annum. About 100 billion dollars these costs could be remediated by application of corrosion-resistant materials and the use of corrosion-related technical practices such as corrosion inhibitors. A corrosion inhibitor is a chemical compound that, when added to a liquid or gas, decreases the corrosion rate of a metal, or its alloy that comes into contact with the fluid or vapour. These chemicals are both organic and inorganic compounds, which generally form a protective layer on the metal surface. Some corrosion inhibitors contain heavy metals are harmful to human health, toxic to plants, environments, and animals. They also have adverse effect on the ecology of the receiving environment and on surface and ground water quality. This book focuses on the use of Vappro VBCI Corrosion Inhibitors which are biodegradable, less toxic, and environmentally friendly. The authors believe in creating a cleaner, greener, and better tomorrow for our children and children's children. Lead Authors Dr Benjamin Valdez Salas Dr Nelson Cheng PhD (honoris causa) Patrick Moe BSc, MSc, Grad Diploma

Sturkie's Avian Physiology - Colin G. Scanes 2014-06-30
Sturkie's Avian Physiology is the classic comprehensive single volume on the physiology of domestic as well as wild birds. The Sixth Edition is thoroughly revised and updated, and features several new chapters with entirely new content on such topics as migration, genomics and epigenetics. Chapters throughout have been greatly expanded due to the many recent advances in the field. The text also covers the physiology of flight, reproduction in both male and female birds, and the immunophysiology of birds. The Sixth Edition, like the earlier editions, is a must for anyone interested in comparative physiology, poultry science, veterinary medicine, and related fields. This volume establishes the standard for those who need the latest and best information on the physiology of birds. Includes new chapters on endocrine disruptors, magnetoreception, genomics, proteomics, mitochondria, control of food intake, molting, stress, the avian endocrine system, bone, the metabolic demands of migration, behavior and control of body temperature Features extensively revised chapters on the cardiovascular system, pancreatic hormones, respiration, pineal gland, pituitary gland, thyroid, adrenal gland, muscle, gastro-intestinal physiology, incubation, circadian rhythms, annual cycles, flight, the avian immune system, embryo physiology and control of calcium. Stands out as the only comprehensive, single volume devoted to bird physiology Offers a full consideration of both blood and avian metabolism on the companion website (http://booksite.elsevier.com/9780124071605). Tables feature hematological and serum biochemical parameters together with circulating concentrations of glucose in more than 200 different species of wild birds

The Right Sensory Mix - Diana Derval 2022-04-08
Many companies fail to acknowledge and analyze disparities observed among customers and simply put them down to culture or emotion. New neuroendocrinological research proves that people are rational: They just have a different biological perception of the same stimulus. Their preferences, behavior, and decisions are strongly influenced by the hundreds of millions of sensors monitoring their body and brain. People with more taste buds are, for example, sensitive to bitterness and are more likely to drink their coffee with sugar or milk, or to drink tea. This book helps product managers, marketers, and corporate decision-makers understand and predict customers' behavior and preferences. It provides the tools to design the right sensory mix (color, shape, depth, taste, smell, texture, and sound) for each product, and fine-tune their positioning and range for every local market. Using cases from different sectors, the author shows that this approach delivers planet and people-friendly innovations which have a higher chance of success in the market.

Soft Computing Applications - Kanad Ray 2018-03-29
This book provides a reference guide for researchers, scientists and industrialists working in the area of soft computing, and highlights the latest advances in and applications of soft computing techniques in multidisciplinary areas. Gathering papers presented at the International Conference on Soft Computing: Theories and Applications (SoCTA 2016), which was held in Jaipur, Rajasthan, India, on December 28–30, 2016, it focuses on applying soft computing to solve real-life problems arising in various domains, from medical and healthcare to supply chain management, image processing and cryptanalysis. The term soft computing represents an umbrella term for computational techniques like fuzzy logic, neural networks and nature inspired algorithms. In the past few decades, there has been an exponential rise in the application of soft computing techniques to address complex and intricate problems in diverse spheres of life. The versatility of these techniques has made them a favourite among

scientists and researchers alike.

World Congress on Medical Physics and Biomedical Engineering 2018 - Lenka Lhotska 2018-05-29

This book (vol. 2) presents the proceedings of the IUPESM World Congress on Biomedical Engineering and Medical Physics, a triennially organized joint meeting of medical physicists, biomedical engineers and adjoining health care professionals. Besides the purely scientific and technological topics, the 2018 Congress will also focus on other aspects of professional involvement in health care, such as education and training, accreditation and certification, health technology assessment and patient safety. The IUPESM meeting is an important forum for medical physicists and biomedical engineers in medicine and healthcare learn and share knowledge, and discuss the latest research outcomes and technological advancements as well as new ideas in both medical physics and biomedical engineering field.

Computer Vision -- ACCV 2014 - Daniel Cremers 2015-04-15

The five-volume set LNCS 9003--9007 constitutes the thoroughly refereed post-conference proceedings of the 12th Asian Conference on Computer Vision, ACCV 2014, held in Singapore, Singapore, in November 2014. The total of 227 contributions presented in these volumes was carefully reviewed and selected from 814 submissions. The papers are organized in topical sections on recognition; 3D vision; low-level vision and features; segmentation; face and gesture, tracking; stereo, physics, video and events; and poster sessions 1-3.

Advances in the Pathophysiology, Diagnosis, And Treatment of Dry Eye Disease - Xiuming Jin 2022-06-06

Application of Biomedical Engineering in Neuroscience - Sudip Paul 2019-11-19

This book focuses on interdisciplinary research in the field of biomedical engineering and neuroscience. Biomedical engineering is a vast field, ranging from bioengineering to brain-computer interfaces. The book explores the system-level function and dysfunction of the nervous system from scientific and engineering perspectives. The initial sections introduce readers to the physiology of the brain, and to the biomedical tools needed for diagnostics and effective therapies for various neurodegenerative and regenerative disorders. In turn, the book summarizes the biomedical interventions that are used to understand the neural mechanisms underlying empathy disorders, and reviews recent advances in biomedical engineering for rehabilitation in connection with neurodevelopmental disorders and brain injuries. Lastly, the book discusses innovations in machine learning and artificial intelligence for computer-aided disease diagnosis and treatment, as well as applications of nanotechnology in therapeutic neurology.

Wildlife Abstracts - U.S. Fish and Wildlife Service 1983

Machine Intelligence and Smart Systems - Shikha Agrawal 2021-04-08

This book is a collection of peer-reviewed best selected research papers presented at the First International Conference on Machine Intelligence and Smart Systems 2020 (MISS 2020), organized during September 24–25, 2020, in Gwalior, India. The book presents new advances and research results in the fields of machine intelligence, artificial intelligence and smart systems. It includes main paradigms of machine intelligence algorithms, namely (1) neural networks, (2) evolutionary computation, (3) swarm intelligence, (4) fuzzy systems and (5) immunological computation.

Universal Access in Human-Computer Interaction: Aging and Assistive Environments - Constantine Stephanidis 2014-05-15

The four-volume set LNCS 8513-8516 constitutes the refereed proceedings of the 8th International Conference on Universal Access in Human-Computer Interaction, UAHCI 2014, held as part of the 16th International Conference on Human-Computer Interaction, HCII 2014, held in Heraklion, Crete, Greece in June 2014, jointly with 14 other thematically similar conferences. The total of 1476 papers and 220 posters presented at the HCII 2014 conferences was carefully reviewed and selected from 4766 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 251 contributions included in the UAHCI proceedings were carefully reviewed and selected for inclusion in this four-volume set. The 75 papers included in this volume are organized in the following topical sections: design for aging; health and rehabilitation applications; accessible smart and assistive environments; assistive robots and mobility, navigation and safety.

Wildlife Abstracts - 1976

Fractal Sustainability - Isabel Canto de Loura 2016-08-12

Even though the fractal approach to sustainability and organizational change management is not new, no authors so far seem to have truly attempted to use fractals as a mathematical means to map and measure organizational sustainability. Several sustainability maturity models and change management models and frameworks, concepts and computer generated systems came to the fore during the past two decades. They provided a set of useful tools for managers, academics and students to refer to, or on which to base their own actions and plans. However, one issue remains: most of those models and frameworks share a rather similar linear ‘skeleton’; the main difference between them is the quantitative variety of steps within each phase, stage, and parameter and how in depth each of these is presented. The authors' work addresses a clear gap in the literature and in applied research, as it emphasizes the relevance of using a complex mathematically-based but user-friendly fractal approach. Readers are able to better understand, implement, map and measure change management processes leading to a sustainability-focused mindset. Subsequent chapters guide you through the steps towards creating committed sustainability-based strategies, attitudes, actions and practices across all levels in the broad organizational context. This text is essential reading for students researching business and management and who are interested in the Fractal Sustainability concept.

Vascular and Valvular Tissue Engineering: Treating and modeling vasculopathies and valvulopathies - Laura Iop 2022-12-23

Ergonomics in Caring for People - Gaur G. Ray 2017-10-06

This volume comprises select proceedings of the International Conference on Humanizing Work and Work Environment organized by the Indian Society of Ergonomics. The book presents research findings on different areas of ergonomics for developing appropriate tools and work environment considering capabilities and limitations of working people for maximum effectiveness on their performance. The volume is divided into several sections focusing on different ergonomic research activities currently being undertaken at both national and international levels. Considering the high diversity among researchers contributing to this volume, it should prove to be a valuable collection of different approaches that contemporary researchers are adopting on the theme of caring for the people and humanizing work and work environment.

Advanced Biofuel Technologies - Deepak K. Tuli 2021-12-17

Advanced Biofuel Technologies: Present Status, Challenges and Future Prospects deals with important issues such as feed stock availability, technology options, greenhouse gas reduction as seen by life cycle assessment studies, regulations and policies. This book provides readers complete information on the current state of developments in both thermochemical and biochemical processes for advanced biofuels production for the purpose of transportation, domestic and industrial applications. Chapters explore technological innovations in advanced biofuels produced from

agricultural residues, algae, lipids and waste industrial gases to produce road transport fuels, biojet fuel and biogas. Covers technologies and processes of different types of biofuel production Outlines a selection of different types of renewable feedstocks for biofuel production Summarizes adequate and balanced coverage of thermochemical and biochemical methods of biomass conversion into biofuel Includes regulations, policies and lifecycle and techno-economic assessments

Radioactivity - Michael F. L'Annunziata 2022-10-02

Radioactivity: History, Science, Vital Uses and Ominous Peril, Third Edition provides an introduction to radioactivity, the building blocks of matter, the fundamental forces in nature, and the role of quarks and force carrier particles. This new edition adds material on the dichotomy between the peaceful applications of radioactivity and the threat to the continued existence of human life from the potential use of more powerful and sophisticated nuclear weapons. The book includes a current review of studies on the probability of nuclear war and treaties, nonproliferation and disarmament, along with historical insights into the achievements of over 100 pioneers and Nobel Laureates. Through multiple worked examples, the book answers many questions for the student, teacher and practitioner as to the origins, properties and practical applications of radioactivity in fields such as medicine, biological and environmental research, industry, safe nuclear power free of greenhouse gases and nuclear fusion. Ratings and Reviews of Previous Editions: CHOICE Magazine, July 2008: "This work provides an overview of the many interesting aspects of the science of radioactive decays, including in-depth chapters that offer reminiscences on the history and important personalities of the field...This book can be useful as supplemental reading or as a reference when developing course material for nuclear physics, nuclear engineering, or health physics lectures. Special attention has been given to a chapter on the role radioactivity plays in everyday life applications...Generally the book is well produced and will be a valuable resource...Many lectures can be lightened up by including material from this work. Summing up: RECOMMENDED. Upper division undergraduates through professionals; technical program students." U. Greife, Colorado School of Mines, USA "I found the biographical accounts of the various stalwarts of Physics inspirational. Most of them, if not all, had to overcome economic hardships or p[ersonal tragedies or had to do their groundbreaking work in the face of tyranny and war. The biographies also highlighted the high standards of moral convictions that the scientists had as they realized the grave implications of some of their work and the potential threats to humanity. This ought to inspire and motivate young men and women aspiring to be physicists. Even people who have been in the field for a while should find your book re-energizing. It certainly had that effect on me." -- Dr. Ramkumar Venkataraman, Canberra Industries, Inc., Meriden, CT, USA Winner of an Honorable Mention in the 2017 PROSE Awards in the category of Chemistry and Physics (https://proseawards.com/winners/2017-award-winners/) Includes new content that explains the vital benefits that nuclear technology provides and the need to be aware and involved in worldwide efforts toward the reduction of nuclear weapon stockpiles and the elimination of the threat of nuclear weapons Provides context and insights on key research over the past three centuries, placing radioactivity in real-world contexts Supports learning via multiple solved problems that answer practical questions concerning nuclear decay, nuclear radiation and the interaction of nuclear radiation with matter

Biological, Physical and Technical Basics of Cell Engineering - Gerhard M. Artmann 2018-04-11

This book presents and discusses recent scientific progress on Cell and Stem Cell Engineering. It predominantly focuses on Biological, Physical and Technical Basics, and features new trends of research reaching far into the 21st century.

Sports Engineering and Computer Science - Qi Luo 2015-05-18

Sports Engineering and Computer Science contains papers presented at the 2014 International Conference on Sport Science and Computer Science (SSCS 2014), held September 16-17, 2014 in Singapore and at the 2014 International Conference on Biomechanics and Sports Engineering (BSE 2014), held October 24-25, 2014, in Riga, Latvia. The contributions hav

Human Physiology in Extreme Environments - Hanns-Christian Gunga 2014-11-26

Human Physiology in Extreme Environments is the one publication that offers how human biology and physiology is affected by extreme environments while highlighting technological innovations that allow us to adapt and regulate environments. Covering a broad range of extreme environments, including high altitude, underwater, tropical climates, and desert and arctic climates as well as space travel, this book will include case studies for practical application. Graduate students, medical students and researchers will find Human Physiology in Extreme Environments an interesting, informative and useful resource for human physiology, environmental physiology and medical studies. Presents human physiological challenges in Extreme Environments combined in one single resource Provides an excellent source of information regarding paleontological and anthropological aspects Offers practical medical and scientific use of current concepts

Lipid-Protein Mesophases and Cell Organelle Ultrastructure in Health and Disease - Yuru Deng 2021-11-29

Tuning into Frequency - Sputnik Futures 2020-11-03

A riveting guide to the energy that surrounds us and how tuning into the power of frequencies can help us heal ourselves, and the planet. Can you feel it? Energy is Everywhere. From the light, sound, and electromagnetic waves that flow all around us to the intricate electrical networks that flow through us, energy is a frontier as exciting as it is uncharted. Every year new science suggests that harnessing the extraordinary power of these invisible frequencies may be the key to a variety of innovations to improve our health and wellbeing, and to repair our struggling ecosystems. In Tuning into Frequency, the minds of Sputnik Futures explore cutting-edge discoveries from doctors, physicists, healers, ecologists, technologists, and thought leaders and explore how we can employ frequency to improve not only our physical, mental, and spiritual wellbeing, but the health of the planet. For example, did you know: -That your heart and your brain share an electromagnetic field? -That trees can talk to each other? -That sound can heal the body? -That color affects your mood? -That the sun can help fight depression? With expert voices, bold discoveries, and engaging visuals, this entry in the captivating Alice in Futureland series is a riveting guide to the forces that energize our bodies, our minds, and the planet.

Physics, Pharmacology and Physiology for Anaesthetists - Matthew E. Cross 2014-03-06

A quick reference to basic science for anaesthetists, containing all the key information needed for FRCA exams.

Clusterbean: Physiology, Genetics and Cultivation - Rakesh Pathak 2015-10-29

This book provides in-depth information on clusterbean, its cultivation, genetic improvement, plant protection measures, management of abiotic stresses, molecular aspects etc. It is divided into seven chapters including an introduction to the crop, prospects, constraints, genetic improvement, variability, application of clusterbean gum and its byproducts, cultivation, plant protection, physiological and abiotic stress aspects, along with related genetic markers and biotechnological advances. Clusterbean (Cyamopsis tetragonoloba (L.) Taub.), commonly known as ‘guar,’ is an important leguminous crop grown for seed, green fodder, vegetable and green manuring in arid and semi-arid regions and has a special commercial role due to the gum content in its seeds. India’s arid environment provides ideal agro-climatic conditions for the successful cultivation of clusterbean, as the plant needs little surface water, long-duration sunshine and low relative humidity during the cropping season. India accounts for nearly 82 percent of global clusterbean seed production, making it an important export product. Based on essential industry and market data, the book offers a comprehensive overview of this unique crop, and will be of interest to researchers active in the field of clusterbean breeding.

Heart Rate Variability: Clinical Applications and Interaction between HRV and Heart Rate - Karin Trimmel

2015-10-07

Over the last decades, assessment of heart rate variability (HRV) has increased in various fields of research. HRV describes changes in heartbeat intervals, which are caused by autonomic neural regulation, i.e. by the interplay of the sympathetic and the parasympathetic nervous systems. The most frequent application of HRV is connected to cardiological issues, most importantly to the monitoring of post-myocardial infarction patients and the prediction of sudden cardiac death. Analysis of HRV is also frequently applied in relation to diabetes, renal failure, neurological and psychiatric conditions, sleep disorders, psychological phenomena such as stress, as well as drug and addiction research including alcohol and smoking. The widespread application of HRV measurements is based on the fact that they are noninvasive, easy to perform, and in general reproducible – if carried out under standardized conditions. However, the amount of parameters to be analysed is still rising. Well-established time domain and frequency domain parameters are discussed controversially when it comes to their physiological interpretation and their psychometric properties like reliability and validity, and the sensitivity to cardiovascular properties of the variety of parameters seems to be a topic for further research. Recently introduced parameters like pNNxx and new dynamic methods such as approximate entropy and detrended fluctuation analysis offer new potentials and warrant standardization. However, HRV is significantly associated with average heart rate (HR) and one can conclude that HRV actually provides information on two quantities, i.e. on HR and its variability. It is hard to determine which of these two plays a principal role in the clinical value of HRV. The association between HRV and HR is not only a physiological phenomenon but also a mathematical one which is due to non-linear (mathematical) relationship between RR interval and HR. If one normalizes HRV to its average RR interval, one may get 'pure' variability free from the mathematical bias. Recently, a new modification method of the association between HRV and HR has been developed which enables us to completely remove the HRV dependence on HR (even the physiological one), or conversely enhance this dependence. Such an approach allows us to explore the HR contribution to the clinical significance of HRV, i.e. whether HR or its variability plays a main role in the HRV clinical value. This Research Topic covers recent advances in the application of HRV, methodological issues, basic underlying mechanisms as well as all aspects of the interaction between HRV and HR.

Aquaculture Science and Engineering - Balamuralikrishnan Balasubramanian 2022-08-23

This book is about relevant recent research topics in understanding aquaculture for practical approaches; aquatic science, engineering, feed and nutrition, immunology and health are reviewed. The book includes information on why certain fish strains differ in disease resistance, all the current data on fish cell populations, the regulation of the response by factors, and the major histocompatibility complex are explained in detail. The book contains the chapters on nutrition, feed and feed additives, ecology, immunology, microbiology, toxicology, biochemistry, nanotechnology, pharmacology, and biotechnology, among other fields of basic and applied research. Over the past era, scientists have recognized the importance of nutrition in maintaining the health of humans and other animal species, including fish. Humans and other terrestrial animals were the focus of previous research on the links between nutrition, immune response, and disease resistance. However, attempts to conduct similar studies using fish have met with limited success in the last two decades due to a lack of understanding of the immune response in fish. In most facilities, the animals are kept at relatively high densities, causing stress and disease problems are the challenges that we face today and this book opens up the exciting new area of research to truly understand the relationship between fish genetics and immune reactivity. The aquatic immune system turns out to be a crucial reference as aquatic products are increasingly used as model systems for vertebrate immune systems. This book provides that the research students and scientists with a useful text on the latest knowledge of the aquatic feed and nutrition, immune system, cutting-edge technologies, draws everyone's attention to the practice of small-scale aquaculture and provides a guide on how to responsibly use the water ecosystem and the steps needed to develop, test and market fish vaccines. The chapters will serve as introductions to these fields and up-to-date reviews of recent research advances. This book is intended for a wide range of readers, including nutritionists, disease specialists, feed formulators, students, extension specialists, and farmers, as well as university teachers, graduates and doctoral students in zoology, physiology, aquaculture, and biology in general.

Yearbook of International Organizations 2014-2015, Volumes 1A And 1B (SET) - Union of International Associations 2014-06-16

Volume 1 (A and B) covers international organizations throughout the world, comprising their aims, activities and events.

Applied Welfare Economics, Trade, and Agricultural Policy Analysis - G. Cornelis van Kooten 2021

This textbook integrates three related fields in economics, namely agricultural/forestry economics, environmental economics, and international trade, by foregrounding cost-benefit analysis as a significant policy tool. Exploring how welfare measures can be used in the analysis of agricultural, trade, and other economic policies, Applied Welfare Economics, Trade, and Agricultural Policy Analysis fills a gap in the literature on agricultural policy analysis by explaining the economic efficiency improvements and income transfers of various agricultural policy reforms in the United States, Canada, and the European Union. G. Cornelis van Kooten addresses methods of identifying and measuring economic surpluses (costs and benefits), the precautionary principle, identification of an appropriate discount rate, the importance of non-market values, and the role of agriculture in trade negotiations and climate change. Applied Welfare Economics, Trade, and Agricultural Policy Analysis draws on new research, brings attention to the existing literature, and includes review questions that challenge programming skills. The techniques developed in this text can be applied to the development and reform of agricultural policies in various regions in response to trade negotiations and many other situations involving government policy.

EMBEC & NBC 2017 - Hannu Eskola 2017-06-12

This volume presents the proceedings of the joint conference of the European Medical and Biological Engineering Conference (EMBEC) and the Nordic-Baltic Conference on Biomedical Engineering and Medical Physics (NBC), held in Tampere, Finland, in June 2017. The proceedings present all traditional biomedical engineering areas, but also highlight new emerging fields, such as tissue engineering, bioinformatics, biosensing, neurotechnology, additive manufacturing technologies for medicine and biology, and bioimaging, to name a few. Moreover, it emphasizes the role of education, translational research, and commercialization.

Cumulated Index Medicus - 2000

Heavy Metal Toxicity in Plants: Recent Insights on Physiological and Molecular Aspects, Volume II - Rafaqat Ali Gill 2022-11-24

Proceedings of the 3rd International Colloquium on Sports Science, Exercise, Engineering and Technology - Norasrudin Sulaiman 2018-10-11

This proceedings volume explores a range of sports-related topics, including sports science, exercise, sports engineering and technology, in contributions prepared by respected experts and presented at the 3rd International Colloquium on Sports Science, Exercise, Engineering and Technology (ICoSSEET2016). The goal of the conference was to bring together researchers and practitioners from academia and industry to address current challenges in various sports-related areas, and to establish vital new collaborations. The topics covered can be primarily divided into (1) Sports Science and Exercise, (2) Sports Engineering and Technology Application, and (3) Sports Industry and Management.

The Coming of Age of Insulin-Signalling in Insects - Colin G.H. Steel 2015-01-28

The new millennium has seen a major paradigm shift in insect endocrinology. Great advancements are being made which establish that nutrition and growth play a central role in diverse cellular and physiological phenomena during insect development and reproduction. Nutrition affects rates of growth and is mainly regulated by the function of the pathway of insulin/insulin-like growth factor signalling. This pathway is highly conserved across species and ultimately regulates rates of cell growth and proliferation in growing organs. Insulin and insulin-like peptides (ILPs) are some of the best studied hormones in the animal kingdom and all share a common structural motif and initiate a wide range of closely similar physiological processes in higher organisms. In insects, nutrition, via circulating sugar, promotes release of ILPs from brain neurosecretory cells into the haemolymph, which act on peripheral tissues and stimulate protein synthesis and cell growth. Therefore, insect ILPs are common mediators between nutrition and growth in insects and are functionally analogous to mammalian insulin. The 1980s and 1990s witnessed great progress in elucidation of the physiological and molecular mechanism of action of numerous insect hormones involved in regulation of growth, development, reproduction and metabolism. But the signals for the initiation or termination of controlled events remained largely unknown. ILPs were first identified from the silkmoth Bombyx mori and were named bombyxins, but related peptides were soon found in numerous species and their functions elucidated. The insulin signalling pathway is now recognized as a central factor in the timing of cell proliferation, growth, longevity, reproduction, and reproductive diapause, as well as social behaviour. Recent work has revealed that the insulin signalling pathway is closely integrated with that of various other hormones, including ecdysteroids, the juvenile hormones and neuropeptide(s) such a prothoracicotropic hormone. In addition, the pathway is also linked with both circadian (daily) and photoperiodic (seasonal) clocks potentially providing a basis for its timing function. This Research Topic aims to provide the only current collection of recent advances on insect ILPs. We encouraged submissions on all areas related to identification, characterization, regulation and physiological functions of insect ILPs. We welcomed both full and short reviews and original research articles.

AI in Biological and Biomedical Imaging - Xin Gao 2022-01-17

Doctors Gao and Li hold patents related to artificial intelligence.

Fishes Out of Water - Zeehan Jaafar 2017-07-12

Mudskippers are amphibious fishes native to the Indo-West Pacific and tropical western Africa. Unlike most fishes, mudskippers emerse to forage, find mates, and defend territories. Adaptations to their morphology, physiology and behavior enable mudskippers to accommodate both aquatic and terrestrial habitats. For these traits, mudskippers have long captured the fascination of scientists, naturalists, and fish hobbyists. Some mudskipper taxa (e.g. Periophthalmodon spp., Periophthalmus spp., Boleophthalmus spp.) are readily observed on mudflats and mangrove forests during the ebb tide. Correspondingly, these conspicuous and widespread taxa are relatively well-studied. The autecology and basic biology for the remaing taxa (e.g. Apocryptodon spp. and Oxuderces spp.) are still poorly understood. Fishes Out of Water: Biology and Ecology of Mudskippers is the first comprehensive book to synthesize published scientific information and observation on these fishes. Two dozen subject experts present thorough overviews in fifteen distinct chapters. Contents span mudskipper anatomy, distribution, systematics, physiology, ecology, and conservation. Unique adaptations to terrestriality are discussed within the context of each chapter foci. This authoritative reference equips the reader with the basic foundation to understand mudskipper biology and ecology, while providing a framework in which emerging data are discussed. The book will be of interest to a broad range of students, researchers, and professionals in ichthyology, evolution, ecology, animal behavior, and comparative physiology.

Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals - National Academies of Sciences, Engineering, and Medicine 2017-06-04

Marine mammals face a large array of stressors, including loss of habitat, chemical and noise pollution, and bycatch in fishing, which alone kills hundreds of thousands of marine mammals per year globally. To discern the factors contributing to population trends, scientists must consider the full complement of threats faced by marine mammals. Once populations or ecosystems are found to be at risk of adverse impacts, it is critical to decide which combination of stressors to reduce to bring the population or ecosystem into a more favorable state. Assessing all stressors facing a marine mammal population also provides the environmental context for evaluating whether an additional activity could threaten it. Approaches to Understanding the Cumulative Effects of Stressors on Marine Mammals builds upon previous reports to assess current methodologies used for evaluating cumulative effects and identify new approaches that could improve these assessments. This review focuses on ways to quantify exposure-related changes in the behavior, health, or body condition of individual marine mammals and makes recommendations for future research initiatives.

- Charles A. Czeisler 1978