Edusolution

Social Studies for Secondary Schools

Now in its 4th edition, this popular text for secondary social studies methods courses integrates discussions of educational goals and the nature of history and social studies with ideas for organizing social studies curricula, units, lessons, projects, and activities. A major theme throughout is that what teachers choose to teach and the way they teach reflect their broader understanding of society, history, and the purpose of social studies education. Advocating an inquiry and activity-based view of social studies teaching that respects the points of view of students and teachers, and based in practice and experience, it offers systematic support and open, honest advice for new teachers. Each chapter addresses a broad question about social studies education; sub-chapters begin with narrower questions that direct attention to specific educational issues. Lesson ideas and materials in the book and online are especially designed to help new teachers to address common core learning standards, to work in inclusive settings, and to promote literacy and the use of technology in social studies classrooms. Chapters include highlighted Learning Activities, Teaching Activities, nd Classroom Activities designed to provoke discussion and illustrate different approaches to teaching social studies, and conclude with recommendations for further reading and links to on-line essays about related social studies topics. Activities are followed by four categories: \"Think it over,\" \"Add your voice to the discussion,\" \"Try it yourself,\" and \"It’s your classroom.\" All of these are supported with online teaching material. Designed for undergraduate and graduate pre-service social studies methods courses, this text is also useful for in-service training programs, as a reference for new social studies teachers, and as a resource for experienced social studies educators who are engaged in rethinking their teaching practice. New in the Fourth Edition Provides a number of new lesson ideas paired with online lesson plans and activity sheets in every chapter Takes a new focus on data-driven, standards-based instruction, especially in relation to the common core curriculum Addresses the interactive nature of learning in updated technology sections Reflects current trends in history education Includes more of what the author has learned from working teachers Offers a wealth of additional on-line material linked to the text

Drosophila Information Service

This volume provides a comprehensive reference for researchers aiming to bring new techniques and approaches to their scientific research using urodeles. Chapters are authored by leaders in the field and meant to guide readers through laboratory colony husbandry, traditional molecular techniques, experimental manipulation and surgeries, bioinformatics and genomics, transgenics and lineage-tracing, and physiological and organismal techniques. In addition to laboratory methods, this volume highlights techniques developed for field studies and work with wild-caught animals. Written in the 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 protocols, and notes on troubleshooting and avoiding known pitfalls. Authoritative and state-of-the-art, Methods in Salamander Research aims to be a practical guide for researchers interested in deploying new methodologies in their lab or in the field.

Salamanders

This Open Access volume provides a comprehensive overview of the latest tools available to scientists to study the many facets of whole-body regeneration (WBR). The chapters in this book are organized into six parts. Part One provides a historical overview on the study of the WBR phenomena focusing on the primary challenges of this research. Parts Two and Three explore a series of non-vertebrate zoological contexts that provide experimental models for WBR, showing how they can be approached with cellular tools. Parts Four,

Five, and Six discuss the future advancements of WBR, reporting about the cutting-edge techniques in genetics and omics used to dissect the underlying mechanisms of WBR, and systems biology approaches to reach a synthetic view of WBR. 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 thorough, Whole-Body Regeneration: Methods and Protocols is a valuable resource for scientists and researchers who want to learn more about this important and developing field.

Whole-Body Regeneration

This volume discusses different approaches towards understanding the brain plasticity, aging, and regeneration of the nervous system in model organisms. Chapters guide the reader through an overview of model organisms, setup of an aquatic system, Tol2-mediated transgenesis, CRISPR/Cas9-mediated gene knock-out and knock-in, Cas13d-mediated gene knockdown, tissue clearing and expansion methods for brain and spinal cord imaging, Histological techniques, chromatin Immunoprecipitation Sequencing (ChIP-Seq) analysis, single-cell RNA sequencing analysis, BrdU/EdU incorporation assays, brain and spinal cord injury in African killifish, and emerging technologies and future perspectives in African killifish research. In the Neuromethods series style, chapters include the kind of detail and key advice from the specialists needed to get successful results in your laboratory. Authoritative and cutting-edge, Emerging Model Organisms aims to be a useful practical guide to researches to help further their study in this field.

Methods in cell therapy and regenerative medicine

This detailed volume examines fine-tuned methodologies using the planarian species, Schmidtea mediterranea. The book features experimental protocols covering topics from in situ hybridization, immunohistochemistry, cell dissociation and flow cytometry, to pipelines for the analysis of large datasets, as in genomics and transcriptomics. Written for the highly successful Methods in Molecular Biology series, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step and readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Schmidtea mediterranea: Methods and Protocols provides both experts in the field and newcomers with the best possible toolbox for their everyday lab work utilizing this valuable model.

Emerging Model Organisms

This fully updated edition introduces new tools, models, and analytic insights that position the zebrafish even more strongly as an engine of discovery for developmental and disease biology. Beginning with a section exploring detailed methods for use of zebrafish to model a variety of human diseases, the book continues by illuminating the key ongoing role of the fish model in studies of the vertebrate nervous system, tools and approaches using zebrafish to study stem cell and regenerative biology, as well as techniques in genetics and genomics. Written for the highly successful Methods in Molecular Biology series, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step and readily reproducible laboratory protocols, as well as tips on troubleshooting and avoiding known pitfalls. Authoritative and up-to-date, Zebrafish: Methods and Protocols, Third Edition serves as an invaluable guide to propel advances in developmental biology, disease modeling, and regeneration research using zebrafish and medaka as model systems.

Schmidtea Mediterranea

What is happening to public debate in Western cultures? Is our public sphere disintegrating? In the face of popular tabloid newspapers, new forms of reality television and an increasing lack of respect for traditional authorities, many critics are concerned that our society no longer has a rational, informed and unified space where everyone can communicate about the issues that affect us all. In this book Alan McKee answers these

questions by providing an introduction to the concept of the public sphere, the history of the term and the philosophical arguments about its function. By drawing on many examples from contemporary mediated culture, McKee looks at how we communicate with each other in public - and how we decide whether changing forms of communication are a good thing for the 'public sphere'.

Zebrafish

The interplay between cancer cells and the immune system is a critical area of research, with recent advancements highlighting the potential of immunotherapy in offering durable responses across various cancer types. Immune checkpoint inhibitors, in particular, have emerged as a cornerstone of cancer therapy, transforming patient outcomes. However, the heterogeneity of tumor-immune interactions poses significant challenges, with a considerable fraction of patients not responding to such treatments. This underscores the urgent need for a deeper understanding of the molecular and cellular underpinnings of these interactions, to harness the full potential of immunotherapy. This Research Topic aims to address the complex landscape of tumor-immune interactions, focusing on identifying and leveraging novel biomarkers and mechanisms that can predict and enhance the efficacy of immunotherapy. Given the pivotal role of the immune system in controlling and eradicating cancer, understanding these interactions at a granular level could lead to more personalized and effective treatment strategies. Recent advances in technologies such as next-generation sequencing, single-cell RNA sequencing, and mass cytometry have opened new avenues for dissecting the complexity of the tumor microenvironment and immune evasion strategies. This collection seeks to compile cutting-edge research that employs these technologies to uncover new biomarkers, understand resistance mechanisms, and identify potential therapeutic targets within the immune contexture of tumors. By bridging gaps in knowledge and fostering innovation, this topic aims to propel the field towards more predictive and responsive immunotherapy approaches.

Liberté, inégalité, autorité

Researchers working on adult neurogenesis have focused largely on inbred laboratory rodents. While this provides a strong advantage of restricting genetic variation in the group, it also narrows our perspective on adult neurogenesis as a biological phenomenon. Many unsolved issues and open questions cannot be resolved without the contribution of comparative studies spanning through widely different species: how did adult neurogenesis evolve, what is the link between adult neurogenesis and brain complexity, how do adult neurogenesis and animal behavior influence each other, how does adult neurogenesis contribute to brain plasticity, cognition and, possibly, repair, and how do experimental conditions affect adult neurogenesis. The main message from the comparative approach to adult neurogenesis is that the relative exclusive focus on laboratory rodents can result in a bias on how we think about this biological process.

The Public Sphere

The Semantic Web aims at enriching the existing Web with meta-data and processing methods so as to provide web-based systems with advanced capabilities, in particular with context awareness and decision support. The objective of this book is to provide a coherent introduction to semantic web methods and research issues with a particular emphasis on reasoning. The 7th reasoning web Summer School, held in August 2011, focused on the central topic of applications of reasoning for the emerging “Web of Data”. The 12 chapters in the present book provide excellent educational material as well as a number of references for further reading. The book not only addresses students working in the area, but also those seeking an entry point to various topics related to reasoning over Web data.

Unveiling Biomarkers and Mechanisms in the Tumor-Immune Nexus

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current affairs includes many important sections like Science and Technology, Polity, Economics etc.

Adult Neurogenesis: Beyond Rats and Mice

The science of ecotoxicology and the practice of ecological risk assessment are evolving rapidly. Ecotoxicology as a subject area came into prominence in the 1960s after the publication of Rachel Carson's book on the impact of pesticides on the environment. The rise of public and scientific concern for the effects of chemical pollutants on the environment in the 1960s and 1970s led to the development of the discipline of ecotoxicology, a science that takes into account the effects of chemicals in the context of ecology. Until the early 1980s, in spite of public concern and interest among scientists, the assessment of ecological risks associated with natural or synthetic pollutants was not considered a priority issue by most government. However, as the years passed, a better understanding of the importance of ecotoxicology emerged and with it, in some countries, the progressive formalization of an ecological risk assessment process. Ecological risk assessment is a conceptual tool for organizing and analyzing data and information to evaluate the likelihood that one or more stressors are causing or will cause adverse ecological effects. Ecological risk assessment allows risk managers to consider available scientific information when selecting a course of action, in addition to other factors that may affect their decision (e. g. , social, legal, political, or economic). Ecological risk assessment includes three phases (problem formulation, analysis, and risk characterization).

Reasoning Web. Semantic Technologies for the Web of Data

Simon Chapman is one of the world’s leading advocates for tobacco control, having won the coveted Luther Terry and WHO medals. His experience straddles 30 years of activism, highly original research and analysis, having run advocacy training on every continent and editing the British Medical Journal’s Tobacco Control research journal. In this often witty and personal book, he lays out a program for making smoking history. He eviscerates ineffective approaches, condemns overly enthusiastic policies which ignore important ethical principles, and provides a cookbook of strategy and tactics for denormalising smoking and the industry which promotes it. Public Health Advocacy and Tobacco Control is divided into two sections. The first contains chapters spanning such key topics as the place of advocacy in tobacco control, ethical issues, smoking cessation and prevention, harm reduction and product regulation and the denormalisation of smoking. The second section provides an invaluable A-Z of tobacco control advocacy strategy from Accuracy to Whistleblowers.

UPSC IAS Current Affairs Magazine for June 2021 - Free PDF

This volume explores the latest technologies used in the Polycomb Group of proteins field and helps scientists--working on PcG proteins--investigate all functions of PcG proteins in diverse cellular contexts. The chapters in this book cover topics such the distribution of histone marks by CUT&Tag in Drosophila embryos; Co-IP in mammalian cells; replication timing of gene loci in different cell cycle phases; STORM and electronmicroscopy and relative data analysis; and polycomb mediated epigenetic modification in spheroids. 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. Cutting-edge and comprehensive, Polycomb Group Proteins: Methods and Protocols, Second Edition is a valuable tool for all researchers looking to expand their knowledge of this developing field.

Ecotoxicology, Ecological Risk Assessment and Multiple Stressors

This book focuses on private tutoring (sometimes also known as “shadow education”), an important but neglected topic in applied linguistics and language education research. Private tutoring has become a popular out-of-school learning activity worldwide. While its scope and definition are expanding, private tutoring commonly refers to the “paid service students used to supplement their learning of academic subjects at

school outside school hours" (Yung, 2019). Around the world, English language is one of the most popularly enrolled subjects in private tutoring, including both English as a first language and English as an additional language (EAL). Despite its popularity and implications for theories, practices, and policies, research on English private tutoring is still in its infancy. This book aims to provide an international perspective on the interface between applied linguistics and comparative education and open up an agenda for discussion in theories, practices, and policies in English language teaching (ELT). It will be of interest to students, scholars, and policy-makers in these and related areas.

Public Health Advocacy and Tobacco Control

Reviews of Environmental Contamination and Toxicology attempts to provide concise, critical reviews of timely advances, philosophy and significant areas of accomplished or needed endeavor in the total field of xenobiotics, in any segment of the environment, as well as toxicological implications.

Morbidity and Mortality Weekly Report

This detailed collection serves as a unique and excellent collection of state-of-the-art methods and protocols to interrogate cell migration in a wide variety of different contexts and model organisms, as well as advanced image analysis and quantitative assessment of a diverse array of parameters related to cell migration. The book focuses on the cell biology of cell migration, developmental model systems to assess cell migration during morphogenesis, cell migration in cancers and the tumor micro-environment, as well as blood vessel formation and interactions. Written for the highly successful Methods in Molecular Biology series, chapters include introductions to their respective topics, lists of the necessary materials and reagents, step-by-step and readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Cell Migration in Three Dimensions provides a solid foundation for scientists of different disciplines to investigate cell migration in biological processes. Chapters 7, 12, 16, 17, 19, 22, and 24 are available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

Polycomb Group Proteins

Colloidal Quantum Dot Light Emitting Diodes Explore all the core components for the commercialization of quantum dot light emitting diodes Quantum dot light emitting diodes (QDLEDs) are a technology with the potential to revolutionize solid-state lighting and displays. Due to the many applications of semiconductor nanocrystals, of which QDLEDs are an example, they also hold the potential to be adapted into other emerging semiconducting technologies. As a result, it is critical that the next generation of engineers and materials scientists understand these diodes and their latest developments. Colloidal Quantum Dot Light Emitting Diodes: Materials and Devices offers a comprehensive introduction to this subject and its most recent research advancements. Beginning with a summary of the theoretical foundations and the basic methods for chemically synthesizing colloidal semiconductor quantum dots, it identifies existing and future applications for these groundbreaking technologies. The result is tailored to produce a thorough understanding of this area of research. Colloidal Quantum Dot Light Emitting Diodes readers will also find: An author with decades of experience in the field of organic electronics Detailed discussion of topics including advanced display technologies, the patent portfolio and commercial considerations, and more Strategies and design techniques for improving device performance Colloidal Quantum Dot Light Emitting Diodes is ideal for material scientists, electronics engineers, inorganic and solid-state chemists, solid-state and semiconductor physicists, photochemists, and surface chemists, as well as the libraries that support these professionals.

International Perspectives on English Private Tutoring

The Workshop N* Physics and non-perturbative QeD was held at the Eu ropean Center for Theoretical

Studies and Related Areas (ECT*) in Trento, Italy, during May 18-29, 1998. Previous workshops of the series on N* Physics took place at the Florida State University (1994), at CEBAF (1995), at the Institute for Nuclear Theory in Seattle (1996) and at the George Washington University (1997). The Workshop was devoted to a summary of recent experimental and the oretical research on N* phsyics and special emphasis was given to the infor mation that photo-and electro-production of nucleon resonances can provide on the non-perturbative regime of Quantum Chromodynamics. The idea was to stimulate discussions among experimentalists and theoreticians in order to pursue the interpretation of the huge amount of forthcoming data from several laboratories in the world. It was therefore decided to have both experimental and theoretical lectures on the main topics, like ,among the others, single and double pion production, TJ-and K-meson production, the GDH sum rule, the spin of the proton, etc. Thanks to the unusual two-week extension of the Work shop, the allotted time for the lectures was extended up to one hour in order to allow the invited lecturers to give a detailed presentation of their topics. Fi nally, various short contributions were selected to sharpen the discussion about selected items.

Reviews of Environmental Contamination and Toxicology Volume 233

Daily existence is more connected to consumer behaviors than ever before, raising many issues around well-being and quality of life. Problematic consumer behaviors include unhealthy eating, alcohol, tobacco, pornography, and gambling abuse, credit card mismanagement, marketplace discrimination, and ecological deterioration. This book explores opportunities for improving well-being via consumer behaviors, such as empowerment via the Internet, product sharing, leisure pursuits, family consumption, and pro-environmental activities.

Cell Migration in Three Dimensions

lncRNAs (long non-coding RNAs) are the relatively longer (more than 200 nucleotides long) subtypes of ncRNAs (non-coding RNAs) i.e the RNAs that do not code for any proteins. However, even without themselves being translated, lncRNAs impact the cellular gene expressions and functions in ways that are just beginning to be explored. The metastasis of human cancers as well as acquired resistance against the administered therapeutics are two major factors responsible for the cancer-associated mortality.

Colloidal Quantum Dot Light Emitting Diodes

Immune inflammation encompasses neuroinflammation, influenza, and acute lung injury. However, with changing human lifestyles and increasingly severe environmental pollution, among other factors, the incidence of immune inflammatory diseases has noticeably increased. As such, preventing immune inflammatory diseases has become a significant challenge for the global medical community. For treating neuroinflammation, current therapeutic drugs include corticosteroids, immunosuppressive drugs, immunoglobulins, and others. However, applying these drugs also presents certain challenges, such as creating individualized treatment plans, controlling unwanted side effects, and ensuring long-term safety of the treatments. Therefore, continuously exploring and developing more precise and effective therapeutic drugs is a crucial research direction under the current treatment methods.

N* Physics and Nonperturbative Quantum Chromodynamics

Cancer immunotherapy, including immune checkpoint inhibitors (ICIs) and chimeric antigen receptor T-cell (CAR-T) therapy, has revolutionized the paradigm in cancer treatment. However, the clinical outcome of immunotherapy varies considerably among patients and only a minority of patients achieve long-term clinical benefits. This is largely attributed to the fact that existing cancer immunotherapies, which concentrate on several classical targets (CTAL-4, PD-1/PD-L1, etc.) and limited types of immune cell populations (T cells), are insufficient to cope with the complexity of highly heterogeneous tumor microenvironment (TME). This calls for more efforts to not only expand our toolbox for manipulating anticancer immunity but also diversify

our combinational strategies. To this end, it is urgent to deeper our understanding of cancer immunotherapy by using both experimental and computational methodologies from multi-scale perspectives: 1) novel targets from either tumor cells or non-tumor cells within TME (e.g., tumor intrinsic resistance drivers, new immune checkpoints, neoantigens), 2) in-depth characterization of more immune cell populations (e.g., macrophages, Tregs, B cells) and their interactions and dynamics within TME, 3) landscape of actionable targets in patient populations for combination design. These efforts will open the avenue of rational design of combinational immunotherapies, allowing researchers and clinicians to design novel targeting therapeutics or to optimally orchestrate combinatory strategies aiming to surmount resistance mechanisms and improve clinical outcomes.

Characterizing the uncharacterized human proteins

Technological advancements over the past few decades have unraveled the diversity and adaptability of tumors, shedding light on key genetic aberrations and metabolic pathways that support tumor growth. Specifically, cancer cells alter their metabolic pathways to fulfill the augmented energy and building block requirements while managing oxidative stress crucial for their proliferation and survival. The flux through these metabolic pathways, underlying of cancer metabolic plasticity, is controlled by cancer driver mutations and environmental nutrient availability. The tumor microenvironment (TME), often deficient in specific nutrients, compels cancer cells to adapt by inducing mechanisms to scavenge nutrients and sustain their proliferation. Moreover, it is increasingly recognized that the metabolism of non-cancerous cell types within the TME, such as endothelial cells, fibroblasts, and immune cells, can influence tumor progression. Specifically, metabolic reprogramming is also essential for maintaining self and body homeostasis of various types of immune cells. Recent studies have highlighted that immune cells undergo metabolic reprogramming during proliferation, differentiation, and execution of effector functions, which are crucial for regulating the antitumor immune response. This impact is achieved by the release of metabolites and its effects on the expression of immune molecules such as PGE2 and lactate. Considering that metastases are a significant cause of cancer-related deaths, ongoing efforts focus on comprehending how metabolism is employed by metastatic cells. Furthermore, there is a newfound interest in utilizing cancer genetic analysis to stratify patients and design dietary interventions along with metabolism-targeting therapies.

Transformative Consumer Research for Personal and Collective Well-Being

This is the Proceedings of ECS Symposium on Photovoltaics for the 21st Century, held in October 2009 in Vienna. The Symposium received over 50 invited and contributed papers. These papers cover major solar cell technologies, from silicon to thin films to 3rd-generation. Material synthesis and characterization, cell fabrication, and device physics and testing for various solar cell technologies are reported.

The interconnection between epigenetic modifications and the tumor microenvironment

Oxidative stress plays multiple roles in the pathobiology of several neurodegenerative disorders and Alzheimer’s disease in particular. Increased oxidative stress in the brain is suggested to be associated with aging, greater amounts of easily oxidizable unsaturated fatty acids, higher utilization of oxygen by the brain, mitochondrial-derived free radicals, calcium homeostasis, and glutamate-induced excitotoxicity. Moreover, environmental chemicals/toxins, heavy metals, and an imbalanced diet might increase oxidative stress potentially leading to a decrease in cognitive functions. Cellular health is also dependent on the levels of nicotinamide adenine dinucleotide (NAD+). It has been well documented that NAD+ is an important coenzyme for over 400 different oxidoreductases and turns out to be a relevant factor to the oxidative stress in the brain. Since the last two decades, NAD+ has been shown to be more than a mere regulator of metabolism, but rather may play a key role in the aging process. NAD+ along with sirtuins are important for various neurophysiological functions, and depletion of NAD+ may be associated with compromised physiological and cognitive functions. To protect the brain from oxidative stress, a modest endogenous protective system works in the brain through dedicated enzymatic machinery. Key enzymes are superoxide

dismutase and catalase, which provide protection against oxidative stress. Aging, various neurological disorders, and chronic inflammation might also affect the levels of these protective enzymes and reduce their levels. Natural compounds, including polyphenols, can offer protection through NAD+ and various other mechanisms. Based on these factors it is becoming more and more clear that oxidative stress and its devastating effects on cognitive decline represents a major health issue in neurobiology. There is a need to identify potential compounds and therapeutic targets for mitigating oxidative stress and/or to strengthen the protective endogenous mechanisms. Novel approaches aiming to support and provide protective mechanisms in the brain will represent a great success in therapeutics. We welcome all article types focusing on the analysis and investigation of oxidative stress - originated from different sources - and its impairing effects on the brain. We will also accept studies investigating naturally occurring compounds, standard medications, and nutraceuticals that have an impact on oxidative stress, NAD+ metabolism and medical and health applications. For this, the aim of this Research Topic is to provide novel insights on oxidative stress (induced by any mechanism) impact on brain health, and on the strengthening of brain-protective mechanisms, supporting cognitive functions.

The Application of Network Analysis in Ethnopharmacology

lncRNAs in Cancer Metastasis and Therapy Resistance