

Apothecary Anecdotes transon nguyen 2021-03-05 This book is a collection of the most unique and interesting anecdotes in the apothecary world and medicine. There is often a blurry line between history, mythology, and (urban) legends. This small book is a curated attempt to retell some of the most intriguing tales from the pharm.

Real World Drug Discovery Robert M. Ryzewski 2010-07-07 Drug discovery increasingly requires a common understanding by researchers of the many and diverse factors that go into the making of new medicines. The scientist entering the field will immediately face important issues for which his education may not have prepared him: project teams, patent law, consultants, target product profiles, industry trends, Gantt charts, target validation, pharmacokinetics, proteomics, phenotype assays, biomarkers, and many other unfamiliar topics for which a basic understanding must somehow be obtained. Even the more experienced scientist can find it frustratingly difficult to get an overview of the many factors involved in modern drug discovery and often only after years of exploring does a whole and integrated picture emerge in the mind of the researcher. Real World Drug Discovery: A Chemist's Guide to Biotech and Pharmaceutical Research presents this kind of map of the landscape of drug discovery. In a single, readable volume it outlines processes and explains essential concepts and terms for the recent science graduate wondering what to expect in pharma or biotech, the medicinal chemist seeking a broader and more timely understanding of the industry, or the contractor or collaborator whose understanding of the commercial drug discovery process could increase the value of his contribution to it. Interviews with well-known experts in many of the fields involved, giving insightful comments from authorities on many of the sub-disciplines important to cutting edge drug discovery. Helpful suggestions gleaned from years of experience in biotech and pharma, which represents a repository drug discovery "lore" not previously available in any book. "Periodic Table of Drugs" listing current top-selling drugs arranged by target and laid out so that structural similarities and differences are plain and clear. Extensive use of diagrams to illustrate concepts like biotech startup models, preteomic profiling for target identification, Gantt charts for project planning, etc.

Molecular Mechanisms and Physiological Significance of Organelle Interactions and Cooperation Michael Schrader 2017-02-28 Eukaryotic cells contain distinct membrane-bound organelles, which compartmentalise cellular proteins to fulfil a variety of vital functions. Many organelles have long been regarded as isolated and static entities (e.g., peroxisomes, mitochondria, lipid droplets), but it is now evident that they display dynamic changes, interact with each other, share certain proteins and show metabolic cooperation and cross-talk. Despite great advances in the identification and characterisation of essential components and molecular mechanisms associated with the biogenesis and function of organelles, information on how organelles interact and are incorporated into metabolic pathways and signaling networks is just beginning to emerge. Organelle cooperation requires sophisticated targeting systems which regulate the proper distribution of shared proteins to more than one organelle. Organelle motility and membrane remodeling support organelle interaction and contact. This contact can be mediated by membrane proteins residing on different organelles which can serve as molecular tethers to physically link different organelles together. They can also contribute to the exchange of metabolites and ions, or act in the assembly of signaling platforms. In this regard organelle communication events have been associated with important cellular functions such as apoptosis, antiviral defense, organelle division/biogenesis, ROS metabolism and signaling, and various metabolic pathways such as breakdown of fatty acids or cholesterol biosynthesis. In this research topic we will focus on recent novel findings on the underlying molecular mechanisms and physiological significance of organelle interaction and cooperation with a particular focus on mitochondria, peroxisomes, endoplasmic reticulum, lysosomes and lipid droplets and their impact on the regulation of cellular homeostasis. Our understanding of how organelles physically interact and use cellular signaling systems to coordinate functional networks between each other is still in its infancy. Nevertheless recent discoveries of defined membrane structures such as the mitochondria-ER associated membranes (MAM) are revealing how membrane domains enriched in specific proteins transmit signals across organelle boundaries, allowing one organelle to influence the function of another. In addition to its role as a mediator between mitochondria and the ER, contacts between the MAM and peroxisomes contribute to antiviral signaling, and specialised regions of the ER are supposed to initiate peroxisome biogenesis, whereas intimate contacts between peroxisomes, lipid droplets and the ER mediate lipid metabolism. In line with these observations it is tempting to speculate that further physical contact sites between other organelles exist. Alternatively, novel regulated vesicle trafficking pathways between organelles (e.g., mitochondria to peroxisomes or lysosomes) have been discovered implying another mode of organelle communication. Identifying the key molecular players of such specialised membrane structures will be a prerequisite to understand how organelle communication is physically accomplished and will lead to the identification of new regulatory networks. In addition to the direct transmission of interorganellar information, cytosolic messenger systems (e.g., kinase/phosphatase systems or redox signaling) may contribute to the coordination of organelle functions. This research topic will integrate new findings from both modes of communication and will provide new perspectives for the functional significance of cross-talk among organelles. We would like to thank all the researchers who contributed their valuable work to this research topic. Furthermore, we are grateful to the reviewers and Associate Editors who contributed valuable comments and positive criticism to improve the contributions.

Fruit Oils: Chemistry and Functionality Mohamed Fawzy Ramadan 2019-05-08 Fruit Oils: Chemistry and Functionality presents a comprehensive overview of recent advances in the chemistry and functionality of lipid bioactive phytochemicals found in fruit oils. The chapters in this text examine the composition, physicochemical characteristics and organoleptic attributes of each of the major fruit oils. The nutritional quality, oxidative stability, and potential food and non-food applications of these oils are also extensively covered. The potential health benefits of the bioactive lipids found in these fruit oils are also a focus of this text. For each oil presented, the levels of omega-9, omega-6 and omega-3 fatty acids are specified, indicating the level of health-promoting traits exhibited in each. The oils and fats extracted from fruits generally differ from one another both in terms of their major and minor bioactive constituents. The methods used to extract oils and fats as well as the processing techniques such as refining, bleaching and deodorization affect their major and minor constituents. In addition, different post-processing treatments of fruit oils and fats may alert or degrade important bioactive constituents. Treatments such as heating, frying, cooking and storage and major constituents such as sterols and tocols are extensively covered in this text. Although there have been reference works published on the composition and biological properties of lipids from oilseeds, there is currently no book focused on the composition and functionality of fruit oils. Fruit Oils: Chemistry and Functionality aims to fill this gap for researchers, presenting a detailed overview of the chemical makeup and functionality of all the important fruit oils.

Public Finance in China Jiwei Lou 2008-01-31 Since 1980, China's economy has been the envy of the world. Is annual growth rate of more than 9 percent during this period makes China today the world's fourth-largest economy. And this sustained growth has reduced the poverty rate from 60 percent of the population to less than 10 percent. However, such rapid growth has also increased inequalities in income and access to basic services and stressed natural resources. The government seeks to resolve these and other issues by creating a 'harmonious society' -- shifting priorities from the overriding pursuit of growth to more balanced economic and social development. This volume compiles analyses and insights from high-level Chinese policy makers and prominent international scholars that address the changes needed in public finance for success in the government's new endeavor. It examines such key policy issues as public finance and the changing role of the state; fiscal reform and revenue and expenditure assignments; intergovernmental relations and fiscal transfers; and financing and delivery of basic public goods such as compulsory education, innovation, public health, and social protection. And it offers concrete recommendations for immediate policy changes and for China's future reform agenda. Public Finance in China' is a must-read for specialists in public finance and for those seeking an understanding of the complex and daunting challenges China is facing.

Handbook of Banana Production, Postharvest Science, Processing Technology, and Nutrition Muhammad Siddiq 2020-09-15 A comprehensive guide that covers the banana's full value chain - from production to consumption The banana is the world's fourth major fruit crop. Offering a unique and in-depth overview of the fruit's entire value chain, this important new handbook charts its progression from production through to harvest, postharvest, processing, and consumption. The most up-to-date data and best practices are drawn together to present guidelines on innovative storage, processing, and packaging technologies, while fresh approaches to quality management and the value-added utilization of banana byproducts are also explained. Additionally, the book examines the banana's physiology, nutritional significance, and potential diseases and pests. The book also Edited by noted experts in the field of food science, this essential text: Provides a new examination of the world's fourth major fruit crop Covers the fruit's entire value chain Offers dedicated chapters on bioactive and phytochemical compounds found in bananas and the potential of processing byproducts Gives insight into bananas' antioxidant content and other nutritional properties Identifies and explains present and possible effects of bioactive and phytochemical compounds Handbook of Banana Production, Postharvest Science, Processing Technology, and Nutrition offers the most far-reaching overview of the banana currently available. It will be of great benefit to food industry professionals specializing in fruit processing, packaging, and manufacturing banana-based products. The book is also an excellent resource for those studying or researching food technology, food science, food engineering, food packaging, applied nutrition, biotechnology, and more.

Molecular Basis of Neuropsychiatric Disorders: from Bench to Bedside Shafiqur Rahman 2019-10-05 Progress in Molecular Biology and Translational Science, Volume 167, provides the most topical, informative and exciting monographs available on a wide variety of research topics related to Models and Biological Targets in Drug Discovery for Attention Deficit Hyperactivity Disorder, Novel Targets for Parkinson-Depression Co-morbidity, Utility of Cannabidiol (CBD) in Neuropsychiatric Disorders: A Short Review of the Recent Pre-clinical and Clinical Findings, The Many Sides of Microglia in Alcohol Use Disorders, Stress, Anxiety, Molecular Targets and More, Calcineurin Signaling in Psychiatric Disorders, Emerging Evidence for the Role of Pituitary Adenylate Cyclase- Activating Peptide (PACAP) in Neuropsychiatric Disorders, and more. Includes comprehensive coverage of molecular biology Presents ample use of tables, diagrams, schemata and color figures to enhance the reader's ability to rapidly grasp the information provided Contains contributions from renowned experts in the field

In Search of Lost Frogs Robin Moore 2014-08-27 On August 9, 2010, 33 teams from 21 countries were dispatched to search for the Lost Frogs identified by

Conservation International. On their list were a host of species including, in the top ten most wanted, the Rio Pescado Stubfoot Toad, found only in Ecuador - which was to prove a triumphant rediscovery. Several months, a number of key rediscoveries - such as the Elegant Tropical Frog, last seen in 1937 and the Chalazodes Bubble-nest Frog - last seen in 1874 and two new species later, the Search for Lost Frogs had generated more than 650 news articles in 20 countries and over a billion potential viewers. Author Robin Moore was responsible for spearheading the Search for Lost Frogs and coordinating the teams. He also co-led two expeditions to Colombia and Haiti. In Colombia in search of the Mesopotamia Beaked Toad, the steamy jungles of the Choco yielded not the desired species but a brand new one - the Mr. Burns Toad, so-called because of an uncanny resemblance to the Simpsons' character; the species was selected as one of Time magazine's top ten new species of 2010. In Haiti the team found six frogs last seen 20 years before, including the Ventriloqual Frog, named for its ability to throw its voice. This fascinating new book tells the story of the expedition - its highs and lows, discoveries and failures and the campaign's ongoing work. Despite the campaign, one third of the world's amphibians remain threatened with extinction. Most of the species searched for were not found. But those that were provide a glimmer of hope. Understanding why these species have survived when many others have not should help us understand what makes these species different. In Search of Lost Frogs is a story of perseverance, disappointment, rediscovery, resilience, but ultimately of hope, written with passion and illustrated with the author's superb photographs.

The Ketogenic Bible Jacob Wilson 2017-08-15 The Ketogenic Bible is the most complete, authoritative source for information relating to ketosis. This book is a one-stop-shop that explains the history, the science, and the therapeutic benefits of the ketogenic diet, outlines the general guidelines for following this diet, and provides a wide variety of keto recipes. Readers will come away with a firm understanding of the ketogenic diet, its potential uses, and the ways it can be implemented. Using a scientific approach, the authors have drawn from both extensive research and practical experience to bring readers an all-encompassing approach.

Critical Mineral Resources of the United States K. J. Schulz 2017 As the importance and dependence of specific mineral commodities increase, so does concern about their supply. The United States is currently 100 percent reliant on foreign sources for 20 mineral commodities and imports the majority of its supply of more than 50 mineral commodities. Mineral commodities that have important uses and face potential supply disruption are critical to American economic and national security. However, a mineral commodity's importance and the nature of its supply chain can change with time; a mineral commodity that may not have been considered critical 25 years ago may be critical today, and one considered critical today may not be so in the future. The U.S. Geological Survey has produced this volume to describe a select group of mineral commodities currently critical to our economy and security. For each mineral commodity covered, the authors provide a comprehensive look at (1) the commodity's use; (2) the geology and global distribution of the mineral deposit types that account for the present and possible future supply of the commodity; (3) the current status of production, reserves, and resources in the United States and globally; and (4) environmental considerations related to the commodity's production from different types of mineral deposits. The volume describes U.S. critical mineral resources in a global context, for no country can be self-sufficient for all its mineral commodity needs, and the United States will always rely on global mineral commodity supply chains. This volume provides the scientific understanding of critical mineral resources required for informed decisionmaking by those responsible for ensuring that the United States has a secure and sustainable supply of mineral commodities.

The United Nations World Water Development Report 2020 UNESCO 2020-03-27 The 2020 edition of the WWDR, titled Water and Climate Change illustrates the critical linkages between water and climate change in the context of the broader sustainable development agenda. Supported by examples from across the world, it describes both the challenges and opportunities created by climate change, and provides potential responses - in terms of adaptation, mitigation and improved resilience - that can be undertaken by enhancing water resources management, attenuating water-related risks, and improving access to water supply and sanitation services for all in a sustainable manner. It addresses the interrelations between water, people, environment and economics in a changing climate, demonstrating how climate change can be a positive catalyst for improved water management, governance and financing to achieve a sustainable and prosperous world for all. The report provides a fact-based, water-focused contribution to the knowledge base on climate change. It is complementary to existing scientific assessments and designed to support international political frameworks, with the goals of helping the water community tackle the challenges of climate change, and informing the climate change community about the opportunities that improved water management offers in terms of adaptation and mitigation.

Landscape as Infrastructure Pierre Bélanger 2016-11-10 As ecology becomes the new engineering, the projection of landscape as infrastructure—the contemporary alignment of the disciplines of landscape architecture, civil engineering, and urban planning— has become pressing. Predominant challenges facing urban regions and territories today—including shifting climates, material flows, and population mobilities, are addressed and strategized here. Responding to the under-performance of master planning and over-exertion of technological systems at the end of twentieth century, this book argues for the strategic design of "infrastructural ecologies," describing a synthetic landscape of living, biophysical systems that operate as urban infrastructures to shape and direct the future of urban economies and cultures into the 21st century. Pierre Bélanger is Associate Professor of Landscape Architecture and Co-Director of the Master in Design Studies Program at Harvard University's Graduate School of Design. As part of the Department of Landscape Architecture and the Advanced Studies Program, Bélanger teaches and coordinates graduate courses on the convergence of ecology, infrastructure and urbanism in the interrelated fields of design, planning and engineering. Dr. Bélanger is author of the 35th edition of the Pamphlet Architecture Series from Princeton Architectural Press. GOING LIVE: from States to Systems (pa35.net), co-editor with Jennifer Sigler of the 39th issue of Harvard Design Magazine, Wet Matter, and co-author of the forthcoming volume ECOLOGIES OF POWER: Mapping Military Geographies & Logistical Landscapes of the U.S. Department of Defense. As a landscape architect and urbanist, he is the recipient of the 2008 Canada Prix de Rome in Architecture and the Curator for the Canada Pavilion at Canadian Exhibition, "EXTRACTION," at the 2016 Venice Architecture Biennale (extraction.ca).

Territorial tools for agro-industry development Food and Agriculture Organization of the United Nations 2018-08-09 This sourcebook appraises these instruments and considers their nature and objectives, their potential benefits and challenges and the approaches used to implement them. It also examines the practices that have led to both successful and unsuccessful outcomes. The publication provides a comprehensive review of the potential of these tools to enhance value addition, deliver jobs, increase exports and provide markets for new and existing producers in the targeted territories. It notes, however, that implementation of these tools poses a number of challenges. For example, planners and practitioners sometimes use them interchangeably, thus ignoring the specificities of the investments, policies and processes required, and their expected outcomes. The sourcebook concludes that these tools have potential for catalytic impact, but planners need to make sound choices that respect demonstrated principles and follow good practices for effective design and implementation.

The Leadership Challenge James M. Kouzes 1996-12-06 Completely revised and updated I not only enjoyed it...I found myself constantly nodding and saying to myself, 'That's right! That's how it's done! That's what it feels like!' You certainly captured the essence of what I've found is at the heart of transforming leadership. -- Robert D. Haas, chairman and CEO, Levi Strauss & Co. The leadership book that outshines them all, updated for today's new business realities. With an expanded research base of 60,000 leaders, this second edition captures the continuing interest in leadership as a critical aspect of human organizations. It offers a broader scope of leaders in every industry and walk of life, including the education and nonprofit fields, and examines the era's hottest issues -- the new cynicism, the electronic global village, evolving employee-employer relationships -- in keeping pace with our ever-changing world. The classic five-point guide to better leadership, however, remains as useful as ever.

Waste Management in MENA Regions Abdelazim M Negrn 2019-07-05 The book presents the state-of-the-art document describing the knowledge, data, cost-effectiveness and technologies employed to manage the waste in several countries such as Morocco, Tunisia, Egypt, Jordon, Syria, Palestine, Lebanon, and Yemen. It covers diverse topics including the status of the waste in the region, solid waste management, solid waste recovery and disposal, the use of the agricultural waste in feeding poultry, sludge disposal and management, wastewater treatment and energy production. Also, the book explains how waste management systems are becoming more complex in many countries with the move from landfill-based to resource recovery-based solutions following the setting of international and national targets to divert waste from landfill and to increase recycling and recovery rates. Besides, this book also evaluates the environmental legislation in the selected countries and suggests new performance enhancements. This book is of interest to environmental professionals including scientists and policymakers in the Middle East, North Africa, and areas with similar features.

Adaptation to a Changing Climate in the Arab Countries Dorte Verner 2012-11-16 For thousands of years, the people of Middle East and North Africa (MENA) have coped with the challenges of climate variability by adapting their survival strategies to changes in rainfall and temperature. Temperatures are expected to increase, and in most places less rainfall is expected. Water availability is expected to decrease, and with a growing population, the already water-scarce regions are not having sufficient supplies to irrigate crops, support industry, or provide drinking water. Low quality urban drainage systems have contributed to flooding in some Arab cities and the threat of more flooding is impetus to finally rebuild infrastructure. In rural areas, climate change is forcing communities to rethink gender roles that perpetuate gender inequality. Finally, adaptation governance needs to be improved and implemented throughout the region. Anticipation of climate change is stimulus for improving interventions, galvanizing support, and improving governance.

Perfect Health Diet Paul Jaminet 2012-12-11 Suffering from chronic illness and unable to get satisfactory results from doctors, husband and wife scientists Paul and Shou-Ching Jaminet took an intensely personal interest in health and nutrition. They embarked on five years of rigorous research. What they found changed their lives—and the lives of thousands of their readers. In Perfect Health Diet, the Jaminets explain in layman's terms how anyone can regain health and lose weight by optimizing nutrition, detoxifying the diet, and supporting healthy immune function. They show how toxic, nutrient-poor diets sabotage health, and how on a healthy diet, diseases often spontaneously resolve. Perfect Health Diet tells you exactly how to optimize health and make weight loss effortless with a clear, balanced, and scientifically proven plan to change the way you eat—and feel—forever!