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OPHKJ6 - DASHAWN SARIAH

Our world and bodies are becoming increasingly polluted with chemicals capable of interfering with our hormones and thus, possibly, our present and future neural and mental health. This work focuses on if and how these chemicals, known as endocrine disrupting compounds (EDCs), affect the development and function of the brain and might be contributing to neural disorders rapidly rising in prevalence. It provides an overall synthesis of the EDC field including its historical roots, major hypotheses, key findings, public health policy implications, and research gaps.

A respected resource for decades, the Guide for the Care and Use of Laboratory Animals has been updated by a committee of experts, taking into consideration input from the scientific and laboratory animal communities and the public at large. The Guide incorporates new scientific information on common laboratory animals, including aquatic species, and includes extensive references. It is organized around major components of animal use: Key concepts of animal care and use. The Guide sets the framework for the humane care and use of laboratory animals. Animal care and use program. The Guide discusses the concept of a broad Program of Animal Care and Use, including roles and responsibilities of the Institutional Official, Attending Veterinarian and the Institutional Animal Care and Use Committee. Animal environment, husbandry, and management. A chapter on this topic is now divided into sections on terrestrial and aquatic animals and provides recommendations for housing and environment, husbandry, behavioral and population management, and more. Veterinary care. The Guide discusses veterinary care and the responsibilities of the Attending Veterinarian. It includes recommendations on animal procurement and transportation, preventive medicine (including animal biosecurity), and clinical care and management. The Guide addresses distress and pain recognition and relief, and issues surrounding euthanasia. Physical plant. The Guide identifies design issues, providing construction guidelines for functional areas; considerations such as drainage, vibration and noise control, and environmental monitoring; and specialized facilities for animal housing and research needs. The Guide for the Care and Use of Laboratory Animals provides a framework for the judgments required in the management of animal facilities. This updated and expanded resource of proven value will be important to scientists and researchers, veterinarians, animal care personnel, facilities managers, institutional administrators, policy makers involved in research issues, and animal welfare advocates.

It was only in the past few decades that we realized life is basically a coordinated interplay between cyclic biochemical processes in widely different forms and period of times. This recognition greatly altered our understanding on how living organisms function. The Avian Pineal Gland discusses one specific aspect of biological cycles: the mechanism of the circadian melatonin secretion from the chicken pineal gland. The plineal gland plays a key role in controlling circadian and seasonal rhythmic processes in virtually all vertebrate species. Also, the avian pineal gland is an excellent model for studying the mechanism of the circadian processes, since this organ is relatively simple in structure and it possesses all the known features of a fully functioning circadian biological clock.

Now in its second edition, the Oxford Textbook of Endocrinology and Diabetes is a fully comprehensive, evidence-based, and highly-valued reference work combining basic science with clinical guidance, and providing first rate advice on diagnosis and treatment.

The purpose of this publication is to provide the background rationale and support for WHO's working paper Dealing with uncertainty - how can the precautionary principle help protect the future of our children?, prepared for the Fourth Ministerial Conference on Environment and Health held in Budapest, Hungary, in June 2004. The debate around the precautionary principle has provided many insights into how to improve public health decision-making under conditions of uncertainty. This publication should further support approaches to attaining the concurrent goals of protecting adults, children and future generations and the ecosystems on which we depend and enhancing economic development, sustainability and innovation in science, research and policy. [Ed.]

Microbial endocrinology represents a newly emerging interdisciplinary field that is formed by the intersection of the fields of neurobiology and microbiology. This book will introduce a new perspective to the current understanding not only of the factors that mediate the ability of microbes to cause disease, but also to the mechanisms that maintain normal homeostasis. The discovery that microbes can directly respond to neuroendocrine hormones, as evidenced by increased growth and production of virulence-associated factors, provides for a new framework with which to investigate how microorganisms interface not only with vertebrates, but also with invertebrates and even plants. The reader will learn that the neuroendocrine hormones that one most commonly associates with mammals are actually found throughout the plant, insect and microbial communities to an extent that will undoubtedly surprise many, and most importantly, how interactions between microbes and neuroendocrine hormones can influence the pathophysiology of infectious disease.

Endocrine Methods contains descriptions of contemporary and cutting-edge methodologies in various areas of endocrinology, including receptor theory and immunologic techniques for endocrine research. The book presents step-by-step procedures easily available to study the endocrine system and includes experts in their respective fields as contributors. The book presents step-by-step procedures for many important areas of endocrine target organs. Endocrine Methods serves as a valuable methodological resource for investigators using endocrine methods. Includes comprehensive, yet rapid methodical procedures Offers a wide spectrum of assays including both in vivo and in vitro systems important to the several areas of hormone research Describes several techniques for studying receptors, examining osteoblast activity, and measuring parathyroid hormones Encompasses a host of important research tools that can be utilized by the toxicologist and other biomedical scientists

The hormone cortisol, activated by the fight-or-flight (stress) response, is emerging as a major culprit in a variety of health problems. The Cortisol Connection explores the documented relationship between elevated levels of this hormone, chronic stress, and such health conditions as obesity, depression, suppressed immune system, osteoporosis, and hypertension. This new edition describes the results of the latest research about the connection between cortisol and HSD, and cortisol and testosterone.

This book presents WHO guidelines for the protection of public health from risks due to a number of chemicals commonly present in indoor air. The substances considered in this review, i.e. benzene, carbon monoxide, formaldehyde, naphthalene, nitrogen dioxide, polycyclic aromatic hydrocarbons (especially benzo[a]pyrene), radon, trichloroethylene and tetrachloroethylene, have indoor sources, are known in respect of their hazardousness to health and are often found indoors in concentrations of health concern. The guidelines are targeted at public health professionals involved in preventing health risks of environmental exposures, as well as specialists and authorities involved in the design and use of buildings, indoor materials and products. They provide a scientific basis for legally enforceable standards.

A comprehensive, multidisciplinary review, Neural Plasticity and Memory: From Genes to Brain Imaging provides an in-depth, up--to-date analysis of the study of the neurobiology of memory. Leading specialists share their scientific experience in the field, covering a wide range of topics where molecular, genetic, behavioral, and brain imaging techniques have been used to investigate how cellular and brain circuits may be modified by experience. In each chapter, researchers present findings and explain their innovative methodologies. The book begins by introducing key issues and providing a historical overview of the field of memory consolidation. The following chapters review the putative genetic and molecular mechanisms of cell plasticity, elaborating on how experience could induce gene and protein expression and describing their role in synaptic plasticity underlying memory formation. They explore how putative modifications of brain circuits and synaptic elements through experience can become relatively permanent and hence improve brain function. Interdisciplinary reviews focus on how nerve cell circuitry, molecular expression, neurotransmitter release, and electrical activity are modified during the acquisition and consolidation of long-term memory. The book also covers receptor activation/deactivation by different neurotransmitters that enable the intracellular activation of second messengers during memory formation. It concludes with a summary of current research on the modulation and regulation that different neurotransmitters and stress hormones have on formation and consolidation of memory.

Adenovirus Methods and Protocols, Second Edition, now in two volumes, is an essential resource for adenovirus (Ad) researchers beginning in the field, and an inspirational starting point for researchers looking to branch into new areas of Ad study. In addition to updating and expanding important chapters from the first edition, the authors have added new chapters that address innovative, exciting areas of emphasis in Ad research, including Ad vector construction and use, real-time PCR, use of new animal models, and methods for quantification of Ad virus or virus expression/interactions. The protocols presented are written by trendsetting researchers.

Molecular Basis of Thyroid Hormone Action focuses on the actions of thyroid hormones in eukaryotic cells. This book discusses the profound effects of thyroid hormones on the growth, development, and metabolism of practically all tissues of higher organisms. Organized into 15 chapters, this volume starts with an overview of the kinetic interrelationships of hormone bound to specific receptors and hormone associated with other tissue and plasma pools in living animals. This book then discusses the thyroid hormone receptor, a chromatin-associated protein that appears to mediate the actions of the thyroid hormones in mammalian cells. Other chapters consider the localization of the receptors in chromatin. This book further discusses how thyroid hormones stimulate the accumulation of specific mRNA molecules in cell culture as well as in tissues in vivo. This book is intended for readers who are interested in cell and molecular biology. Endocrinologists will also find this book extremely useful.

Strategic health planning, the cornerstone of initiatives designed to achieve health improvement goals around the world, requires an understanding of the comparative burden of diseases and injuries, their corresponding risk factors and the likely effects of intervention options. The Global Burden of Disease framework, originally published in 1990, has been widely adopted as the preferred method for health accounting and has become the standard to guide the setting of health research priorities. This publication sets out an updated assessment of the situation, with an analysis of trends observed since 1990 and a chapter on the sensitivity of GBD estimates to various sources of uncertainty in methods and data.

Minimize complications with Creasy and Resnik's Maternal-Fetal Medicine.This medical reference book puts the most recent advances in basic science, clinical diagnosis, and management at your fingertips, equipping you with the up-to date evidence-based guidelines and knowledge you need to ensure the best possible outcomes in maternal-fetal medicine. "... Creasy & Resnik's Maternal-Fetal Medicine: Principles and Practice remains an authoritative reference book for clinical residents, fellows and practicing specialists in Maternal-Fetal Medicine." Reviewed by Ganesh Acharya , Feb 2015 Apply today's best practices in maternal-fetal medicine with an increased emphasis on evidence-based medicine. Find dependable, state-of-the-art answers to any clinical question with comprehensive coverage of maternal-fetal medicine from the foremost researchers and practitioners in obstetrics, gynecology and perinatology. Take advantage of the most recent diagnostic advances with a new section on Obstetrical Imaging, complemented by online ultrasound clips as well as cross references and links to genetic disorder databases. Stay on top of rapidly evolving maternal-fetal medicine through new chapters on Recurrent Spontaneous Abortion, Stillbirth, Patient Safety, Maternal Mortality, and Substance Abuse, as well as comprehensive updates on the biology of parturition, fetal DNA testing from maternal blood, fetal growth, prenatal genetic screening and diagnosis, fetal cardiac malformations and arrhythmias, thyroid disease and pregnancy, management of depression and psychoses during pregnancy and the puerperium, and much more. Access the complete contents online at Expert Consult. Your purchase entitles you to access the web site until the next edition is published, or until the current edition is no longer offered for sale by Elsevier, whichever occurs first. If the next edition is published less than one year after your purchase, you will be entitled to online access for one year from your date of purchase. Elsevier reserves the right to offer a suitable replacement product (such as a downloadable or CD-ROM-based electronic version) should access to the web site be discontinued.

Children are already learning at birth, and they develop and learn at a rapid pace in their early years. This provides a critical foundation for lifelong progress, and the adults who provide for the care and the education of young children bear a great responsibility for their health, development, and learning. Despite the fact that they share the same objective - to nurture young children and secure their future success - the various practitioners who contribute to the care and the education of children from birth through age 8 are not acknowledged as a workforce unified by the common knowledge and competencies needed to do their jobs well. Transforming the Workforce for Children Birth Through Age 8 explores the science of child development, particularly looking at implications for the professionals who work with children. This report examines the current capacities and practices of the workforce, the settings in which they work, the policies and infrastructure that set qualifications and provide professional learning, and the government agencies and other funders who support and oversee these systems. This book then makes recommendations to improve the quality of professional practice and the practice environment for care and education professionals. These detailed re-

commendations create a blueprint for action that builds on a unifying foundation of child development and early learning, shared knowledge and competencies for care and education professionals, and principles for effective professional learning. Young children thrive and learn best when they have secure, positive relationships with adults who are knowledgeable about how to support their development and learning and are responsive to their individual progress. Transforming the Workforce for Children Birth Through Age 8 offers guidance on system changes to improve the quality of professional practice, specific actions to improve professional learning systems and workforce development, and research to continue to build the knowledge base in ways that will directly advance and inform future actions. The recommendations of this book provide an opportunity to improve the quality of the care and the education that children receive, and ultimately improve outcomes for children.

Experiments and Demonstrations in Physiology is designed to help readers understand the relationship between physiology and their personal lives. This laboratory-based book allows readers to experience a variety of topics within the field of physiology and to develop essential skills used by scientists when conducting investigations.

This report considers the biological and behavioral mechanisms that may underlie the pathogenicity of tobacco smoke. Many Surgeon General's reports have considered research findings on mechanisms in assessing the biological plausibility of associations observed in epidemiologic studies. Mechanisms of disease are important because they may provide plausibility, which is one of the guideline criteria for assessing evidence on causation. This report specifically reviews the evidence on the potential mechanisms by which smoking causes diseases and considers whether a mechanism is likely to be operative in the production of human disease by tobacco smoke. This evidence is relevant to understanding how smoking causes disease, to identifying those who may be particularly susceptible, and to assessing the potential risks of tobacco products.

Problems with your dog? It may be his thyroid! If your dog is lethargic, losing his hair, gaining weight or suddenly becomes aggressive, perhaps the last thing you (or your vet!) would think about is his thyroid. Unfortunately, however, thyroid disorders can cause literally dozens of health and behavioral problems in dogs and frequently go undiagnosed or are misdiagnosed. And the real tragedy is that most thyroid problems are treatable with the right medical care and a well-informed owner can often minimize the chance of a thyroid disorder occurring in the first place. Noted veterinarian Jean Dodds and co-author Diana Laverdure have done the dog owning public and their vets a great service by writing The Canine Thyroid Epidemic. The book is written in such a way to inform both the average dog owner and animal health care professionals about the ways in which thyroid disorders occur, can be prevented and treated.

"The assessment builds on the work of the Livestock, Environment and Development (LEAD) Initiative"--Pref.

Some investigators have hypothesized that estrogens and other hormonally active agents found in the environment might be involved in breast cancer increases and sperm count declines in humans as well as deformities and reproductive problems seen in wildlife. This book looks in detail at the science behind the ominous prospect of "estrogen mimics" threatening health and well-being, from the level of ecosystems and populations to individual people and animals. The committee identifies research needs and offers specific recommendations to decision-makers. This authoritative volume: Critically evaluates the literature on hormonally active agents in the environment and identifies known and suspected toxicologic mechanisms and effects of fish, wildlife, and humans. Examines whether and how exposure to hormonally active agents occursâ€"in diet, in pharmaceuticals, from industrial releases into the environmentâ€"and why the debate centers on estrogens. Identifies significant uncertainties, limitations of knowledge, and weaknesses in the scientific literature. The book presents a wealth of information and investigates a wide range of examples across the spectrum of life that might be related to these agents.

Popular Science gives our readers the information and tools to improve their technology and their world. The core belief that Popular Science and our readers share: The future is going to be better, and science and technology are the driving forces that will help make it better.

The hypothalamic-pituitary-adrenal axis controls reactions to stress and regulates various body processes such as digestion, the immune system, mood and sexuality, and energy usage. This volume focuses on the role it plays in the immune system and provides substantive experimental and clinical data to support current understanding in the field, and potential applications of this knowledge in the treatment of disease. * Evidence presented in this book suggests that the nervous, endocrine, and immune systems form the Neuroendoimmune Supersystem, which integrates all the biological functions of higher organisms both in health and disease for their entire life cycle. * Contributors include both the scientists who initiated the work on the HPA axis and on the autonomic nervous system, and those who joined the field later.

The analysis and sorting of large numbers of cells with a fluorescence-activated cell sorter (FACS) was first achieved some 30 years ago. Since then, this technology has been rapidly developed and is used today in many laboratories. A Springer Lab Manual Review of the First Edition: "This is a most useful volume which will be a welcome addition for personal use and also for laboratories in a wide range of disciplines. Highly recommended." CYTOBIOS

Now in a revised and expanded third edition, this case-based guide emphasizes the latest investigative advances in both imaging and molecular diagnostics and new treatment approaches for a wide variety of common and complex endocrine conditions. Utilizing unique clinical case histories, each main endocrine condition and disorder is curated by a senior Section Editor with an introduction to his or her area covering both physiology and pathophysiology. This introductory chapter is followed by a number of case histories written by invited experts and designed to cover the important relevant pathophysiology, following a consistent chapter format for ease of use, including bulleted objectives, case presentations, review of the diagnosis, lessons learned, and 3-5 multiple--choice review questions. Section headings include the pituitary, thyroid (overactivity, underactivity and cancer) and parathyroid, adrenal disorders, metabolic bone disease, type 2 diabetes, lipid abnormalities, obesity, and pregnancy. Topics new to this edition include PCOS, transgender medicine and the endocrine effects of viral infections. With a focus on covering major parts of the APDEM curriculum, A Case-Based Guide to Clinical Endocrinology remains a tremendous resource for junior and veteran clinicians alike.

Knowledge of veterinary anatomy and physiology is essential for veterinary professionals and researchers. The chapters reflect the diverse and dynamic research being undertaken in a variety of different species throughout the world. Whether the animals have roles in food security, agriculture, or as companion, wild, or working animals, the lessons we learn impact on many areas of the profession. This book highlights research ranging from the cardiovascular and musculoskeletal systems, prostate and hoof, through to histopathology, imaging, and molecular techniques. It investigates both healthy and pathological conditions at differing stages of life. The importance of each cell and tissue through to the whole organism is explored alongside the methodologies used to understand these vital structures and functions.

The precautionary principle is widely seen as fundamental to successful policies for sustainability. It has been cited in international courts and trade disputes between the USA and the EU, and invoked in a growing range of political debates. Understanding what it can and cannot achieve is therefore crucial. This volume looks back over the last century to examine the role the principle played or could have played, in a range of major and avoidable public disasters. From detailed investigation of how each disaster unfolded, what the impacts were and what measures were adopted, the authors draw lessons and establish criteria that could help to minimise the health and environmental risks of future technological, economic and policy innovations. This is an informative resource for all those from lawyers and policy-makers, to researchers and students needing to understand or apply the principle.

Long recognized as the authoritative leader in the field, Creasy and Resnik's Maternal-Fetal Medicine, 8th Edition, continues to provide the latest evidence-based guidelines for obstetric and neonatal management, helping you minimize complications and offer patients the best possible care. Written by renowned experts in obstetrics, gynecology, and perinatology, this comprehensive resource has been thoroughly updated and reflects new information in every area, including recent tremendous advances in genetics, imaging, and more. Focuses on complicated obstetric issues, highlighting the most commonly encountered anomalies and providing clear guidelines for obstetric and neonatal management. Offers comprehensive updates on rapidly changing topics, including a completely revised section on genetics and genetic technology for prenatal diagnoses, as well as an expanded imaging section on abdominal, urogenital, and skeletal imaging. Includes four new chapters: Molecular Genetic Technology, MRI in Obstetrical Imaging, Obesity in Pregnancy, and Pregnancy as a Window to Future Health. Features numerous flow charts for quick access to diagnosis and treatment protocols and to clarify complex material. Presents the knowledge and expertise of new editors Dr. Joshua Copel, an expert in the field of fetal therapy who has pioneered new diagnostic techniques for unborn patients and their mothers, and Dr. Robert Silver, a leader in the maternal-fetal medicine community.

The cytoskeleton is a highly dynamic intracellular platform constituted by a three-dimensional network of proteins responsible for key cellular roles as structure and shape, cell growth and development, and offering to the cell with "motility" that being the ability of the entire cell to move and for material to be moved within the cell in a regulated fashion (vesicle trafficking). The present edition of Cytoskeleton provides new insights into the structure-functional features, dynamics, and cytoskeleton's relationship to diseases. The authors' contribution in this book will be of substantial importance to a wide audience such as clinicians, researches, educators, and students interested in getting updated knowledge about molecular basis of cytoskeleton, such as regulation of cell vital processes by actin-binding proteins as cell morphogenesis, motility, their implications in cell signaling, as well as strategies for clinical trial and alternative therapies based in multitargeting molecules to tackle diseases, that is, cancer.

This study describes the molecular, genetic, anatomical and neurochemical mechanisms and pathways that operate to control and regulate circadian clock signals in organisms. It also considers the implications of this research for humans.

Atlas of Histology of the Juvenile Rat should be of interest to toxicologic pathologists, toxicologists, and other biological scientists who are interested in the histomorphology of juvenile rats. For several decades the laboratory rat has been used extensively in nonclinical toxicology studies designed to detect potential human toxicity of drugs, agrochemicals, industrial chemicals, and environmental hazards. These studies traditionally have involved young adult rats that are 8-10 weeks of age as studies are started. It is becoming increasingly apparent that children and young animals may have different responses to drug/chemical exposures, therefore, regulatory agencies are emphasizing toxicology studies in juvenile animals. While the histologic features of organs from young adult and aged laboratory rats are well known, less is known about the histologic features of organs from juvenile rats. Final histologic maturity of many organs is achieved postnatally, thus immature histologic features must be distinguished from chemical- or drug-related effects. While this postnatal organ development is known to exist as a general concept, detailed information regarding postnatal histologic development is not readily available. The Atlas includes organs that are typically sampled in nonclinical toxicology studies and presents the histologic features at weekly intervals, starting at birth and extending through postnatal day 42. Written and edited by highly experienced, board-certified toxicologic pathologists Includes more than 700 high-resolution microscopic images from organs that are typically examined in safety assessment toxicology studies Detailed figure legends and chapter narratives present the salient features of each organ at each time interval Figures are available for further study via Elsevier’s Virtual Microscope, which allows viewing of microscopic images at higher magnification Valuable resource for toxicologic pathologists who are confronted with interpretation of lesions in juvenile rats in situations where age-matched concurrent controls are not available for comparison, e.g., with unscheduled decedents Figures are available for further study on ScienceDirect with Virtual Microscope, which allows viewing of microscopic images at higher magnification

Clinical neuropsychology remains one of the fastest growing specialities within clinical psychology, neurology, and the psychiatric disciplines. This second edition provides a practical guide for those interested in the professional application of neuropsychological approaches and techniques in clinical practice.