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Ataxic Disorders Springer Science & Business Media

During the last three decades, many laboratories worldwide have dedicated their research activities to understanding the roles of the cerebellum in motor control, cognitive processes and the biology of mental processes, behavioral symptoms and emotion. These advances have been associated with discoveries of new clinical disorders, in particular in the field of genetic ataxias, and the growing number of diseases presents a source of difficulty for clinicians during daily practice. This practical guide summarizes and evaluates current knowledge in the field of cerebellar disorders. Encompassing details of both common and uncommon cerebellar ataxias, including vascular, immune, neoplastic, infectious, traumatic, toxic and inherited disorders, this book will assist clinicians in the diagnosis and management of the full spectrum of cerebellar ataxias encountered in daily practice. Essential reading for clinicians, including general practitioners, neurologists, pediatricians, radiologists, psychiatrists and neuropsychologists, this will also prove a valuable tool for students, trainees and researchers.

Novel Molecular Targets and Current Advances Methods in Molecular Biology

The fourth edition of this classical reference book can

once again be relied upon to present a cohesive and up-to-date exposition of all aspects of human and medical genetics. Human genetics has become one of the main basic sciences in medicine, and molecular genetics is increasingly becoming a major part of this field. This new edition integrates a wealth of new information - mainly describing the influence of the "molecular revolution" - including the principles of epigenetic processes which together create the phenotype of a human being. Other revisions are an improved layout, sub-division into a larger number of chapters, as well as two-colour print throughout for ease of reference, and many of the figures are now in full colour. For graduates and those already working in medical genetics.

Hair Follicle Stem Cell Regeneration in Aging Springer Science & Business Media

IMF Financial Operations 2014International Monetary Fund

IMF Financial Operations 2018 Thieme

In response to stress, cells can activate a myriad of signalling pathways to bring about a specific cellular outcome, including cell cycle arrest, DNA repair, senescence and apoptosis. This response is pivotal for tumour suppression as all of these outcomes result in restriction of the growth and/or elimination of damaged and pre-malignant cells. Thus, a large number of anti-cancer agents target specific components of stress response signalling pathways with the aim of causing tumour regression by stimulating cell death. However, the efficacy of these agents is often impaired due to mutations in genes that are involved in these stress-responsive signalling pathways and instead the oncogenic potential of a cell is increased leading to the initiation and/or progression of tumourigenesis. Moreover, these genetic defects can increase or contribute to resistance to chemotherapeutic agents and/or radiotherapy. Modulating the outcome of cellular stress responses towards cell death in tumour cells without affecting surrounding normal cells is thus one of the ultimate aims in the development of new cancer therapeutics. To achieve this aim, a detailed understanding of cellular stress response pathways and their aberrations in cancer is required. This Research topic aims to reflect the broadness and complexity of this important area of cancer research.

The Cerebellum: From Embryology to Diagnostic Investigations Frontiers Media SA

Cinnamon is the common name for the spice obtained from the dried inner bark of several species of the genus Cinnamomum in the Lauraceae family. In world trade, Cinnamomum cassia (L.) J. Presl Cinnamomum burmannii dominate, but it is of a different quality to ‘ true ’ or ‘ Ceylon ’ cinnamon produced from Cinnamomum zeylanicum Blume (C. verum J. Presl), with the latter much easier to process, giving a more delicate, sweeter flavor with nuances of clove, but more importantly with only traces (often below detection thresholds) of coumarin, compared with 5 – 7 g/kg in other species. Cinnamon has been a popular and expensive spice in many civilizations, including ancient Egypt, Rome and in 14th and 15th century Europe, where it was used primarily to preserve meat for its antibacterial properties, fine aroma and flavor. Ancient Egyptians used cinnamon in mummification process due to its antibacterial properties and fragrance. The quest for cinnamon brought many explorers to Ceylon, whose ancient history is intertwined with the cinnamon trade. Ancient Egyptians and Romans used cinnamon as a valued spice and as an incense. In recent years, much research has been conducted in crop improvement, processing and value addition in cinnamon. In addition to direct use as a condiment/spice, cinnamon has found a multitude of uses in the food and

beverage, traditional medicine, pharmacology, nutraceutical and cosmetics industries. Ceylon cinnamon is unique in that oils distilled from the bark (major constituents are cinnamaldehyde and oleoresins), leaf (eugenol is the major constituent used in dentistry, perfumes, flavorings and as an antioxidant) and roots (camphor) have different industrial uses. Cinnamaldehyde is now a proven natural bactericide widely used in food and beverage industry, effective against Salmonella spp. and Escherichia coli. Thus, it has become an important natural component of organic fruit and vegetable juices to enhance microbial safety of these nutritious beverages. Because of its manifold uses, cinnamon is an important crop. There have been many recent publications on its ethnobotany, genetics, crop improvement, agronomy, processing, biotechnology, chemistry, food and medicinal uses, and industrial applications. However, one book condensing all these findings is lacking. Our publication, with chapters devoted to all these aspects of cinnamon written by experts in these fields, condenses current knowledge into a single source and contribute to the advancement and dissemination of knowledge and technology. Contributors to the book constitute internationally renowned senior scientists and academics with hands-on experience as well as movers and shakers of industry, thereby striking a right balance between theory and practice. Therefore it is a valuable source for students, teachers, scientists, planners policy makers, practicing agriculturists and industrialists, and a prized acquisition to any library in higher education institutions, R & D institutions and public and private sector institutions in agriculture and allied fields.

Eye Frontiers Media SA

PDEs are a family of enzymes that catalyze the hydrolysis of intracellular cyclic nucleotides. They are implicated in a number of disorders and dysfunctions and PDE inhibitors have already proven to be effective therapies for erectile dysfunction, COPD, and psoriatic arthritis. This family of enzymes also plays a role in diseases and disorders of the CNS such as depression, anxiety, schizophrenia, and Alzheimer's Disease. Unfortunately no effective PDE inhibitors have been developed for the treatment of these diseases. The proposed book will be a comprehensive overview of the current state of basic and translational research on PDE inhibitors written by internationally recognized experts. Authors will also discuss potential PDE subtypes and splice variants in the hopes that this will spur more creative approaches to PDE targeting drugs.

Library Catalog of the Metropolitan Museum of Art, New York Cambridge University Press

This detailed volume for the first time explores techniques and protocols involving quantitative imaging flow cytometry (IFC), which has revolutionized our ability to analyze cells, cellular clusters, and populations in a remarkable fashion. Beginning with an introduction to technology, the book continues with sections addressing protocols for studies on the cell nucleus, nucleic acids, and FISH techniques using an IFC instrument, immune response analysis and drug screening, IFC protocols for apoptosis and cell death analysis, as well as morphological analysis and the identification of rare cells. 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, readily reproducible laboratory protocols, and tips on troubleshooting and avoiding known pitfalls. Authoritative and practical, Imaging Flow Cytometry: Methods and Protocols will be a critical source for all laboratories seeking to implement IFC in their research studies.

Springer Science & Business Media

This practical guide to the diagnosis of neurodegenerative diseases discusses modern molecular techniques, morphological classification, fundamentals of clinical symptomology, diagnostic pitfalls and immunostaining protocols. It is based on the proteinopathy concept of neurodegenerative disease, which has influenced classification and provides new strategies for therapy. Numerous high-quality images, including histopathology photomicrographs and neuroradiology scans,

accompany the description of morphologic alterations and interpretation of immunoreactivities. Diagnostic methods and criteria are placed within recent developments in neuropathology, including the now widespread application of immunohistochemistry. To aid daily practice, the guide includes diagnostic algorithms and offers personal insights from experienced experts in the field. Special focus is given to the way brain tissue should be handled during diagnosis. This is a must-have reference for medical specialists and specialist medical trainees in the fields of pathology, neuropathology and neurology working with neuropathologic features of neurodegenerative diseases.

Smart Card Research and Advanced Applications International Monetary Fund

This paper reviews the adequacy of the Fund ' s precautionary balances, using the framework approved by the Board in 2010. The review takes place on the standard two-year cycle and assesses developments since the last review in 2016.

Methods and Protocols Elsevier Health Sciences

IMF Financial Operations 2018 provides a broad introduction to how the IMF fulfills its mission through its financial activities. It covers the financial structure and operations of the IMF and provides background detail on the financial statements. It reviews the IMF's three main activities: lending, surveillance, and technical assistance.

Making Science Fun – A Tribute to Our Colleague and Friend, Prof. Antonius G. Rolink (1953 – 2017) Springer

Advances in Stem Cells and Their Niches addresses stem cells during development, homeostasis, and disease/injury of the respective organs, presenting new developments in the field, including new data on disease and clinical applications. Video content illustrates such areas as protocols, transplantation techniques, and work with mice. Explores not only reviews of research, but also shares methods, protocols, and transplantation techniques Contains video content to illustrate such areas as protocols, transplantation techniques, and work with mice Each volume concentrates on one organ, making this a unique publication

Circuit Mechanisms of Neurodegenerative Diseases Cambridge University Press

This book includes the proceedings of the 19th International Scientific Conference " Energy Management of Municipal Transportation Facilities and Transport EMMFT 2017 ", which was held in Khabarovsk, Russia on 10 – 13 April 2017. The book presents the research findings of scientists working at universities in the Far Eastern, Siberian and Ural Federal Districts of Russia, and of Serbia, which are unique regions notable for sustainably operating complex transport infrastructures in severe climatic and geographic environments. It also offers practical insights into transportation operation under such conditions.The book discusses the experiences of colleagues from Slovenia, Ukraine and Latvia in the development of transport infrastructure and construction of transport facilities and features and includes the results of a wide range of studies, such as managing multimodal transportation, improving the efficiency of locomotives, electric locomotives, traction substations, electrical substations, relay protection and automation devices, and power-factor correction units. It addresses topics like renewable energy sources, problems of the mathematical and simulation modelling of electromagnetic processes of electrical power objects and systems, aspects of cost reduction for fuel-and-power resources, theoretical aspects of energy management, development of transport infrastructure, modern organizational and technological solutions in construction, new approaches in the field of management, analysis and monitoring in transport sector.Comprising 142 high-quality articles covering a wide range of topics, these proceedings are of interest to anyone engaged in transport engineering, electric power systems, energy management, construction and operation of transport infrastructure buildings and facilities.

Stem Cells Springer

The Cerebellum and Cognition pulls together a preeminent group of authors. The cerebellum has been previously considered as a highly

complex structure involved only with motor control. The cerebellum is essential to nonmotor functions, and recent research has revealed new medically important roles of the cerebellum and cognitive processes. Selected for inclusion in Doody's Core Titles 2013, an essential collection development tool for health sciences libraries Comprehensive coverage of cerebellum in motor control and cognition New developments regarding the cerebellum and motor systems Therapeutic implications of cerebellar contributions to cognition Preeminent group of contributors

Structural Fat Grafting Springer

This book provides the researcher with detailed molecular and genetic techniques useful in the study of cardiac physiology and heart disease. It consists of 26 chapters dealing with various aspects of molecular cardiology, including gene transfer and gene therapy for cardiovascular disease, cellular therapy for cardiovascular disease, gene analysis in the injured and hypertrophied heart, and transgenesis in cardiovascular research.

Hematopoietic Stem Cell Development Academic Press

Stay current with the latest discoveries in molecular and genomic research. Sweeping revisions throughout include eight brand-new chapters on: Tumor Suppressor Genes; Inflammation and Cancer; Cancer Systems Biology: The Future; Biomarkers Assessing Risk of Cancer; Understanding and Using Information About Cancer Genomes; The Technology of Analyzing Nucleic Acids in Cancer; Molecular Abnormalities in Kidney Cancer; and Molecular Pathology.

The Cerebellum and Cognition Frontiers Media SA

This book collects articles on the biology of hematopoietic stem cells during embryonic development, reporting on fly, fish, avian and mammalian models. The text invites a comparative overview of hematopoietic stem cell generation in the different classes, emphasizing conserved trends in development. The book reviews current knowledge on human hematopoietic development and discusses recent breakthroughs of relevance to both researchers and clinicians.

IMF Financial Operations 2014 CRC Press

The Cerebellum: From Embryology to Diagnostic Investigations, Volume 154 is designed to update the reader on the latest and clinically relevant advances in the study of cerebellar diseases in children and adults. It is organized into sections detailing: (1) Embryology, Anatomy and Function, and (2) Diagnostic investigations: Neuroimaging, and includes content on conventional sequences, diffusion tensor imaging, functional MRI, and connectivity studies. Its companion volume, The Cerebellum: Disorders and Treatment, describes disorders (starting from the fetal cerebellum, to adult cerebellum) encountered during daily practice and therapy (including insights into innovative drug and rehabilitative approaches to treat children and adults with cerebellar disorders). Provides an in-depth understanding of the cerebellum and its involvement in a wide variety of diseases Explores the long-term outcome data of pediatric cerebellar diseases and potential problems in adult life for patients with pediatric cerebellar diseases Features chapters co-authored by two experts, combining expertise in both pediatric and adult cerebellar diseases

Motor System and Motor Diseases: From Molecules to Circuits Frontiers Media SA

In this volume, more than 50 leading international experts review the latest scientific and clinical observations on inherited ataxias. The book demonstrates how molecular genetic studies, as well as recent physiological, neurochemical, and clinical data, have generated new concepts on the nosology of these disorders. Close attention is given to the important practical applications of these new findings - in diagnosis, prognosis, and genetic counseling, in development of tests for prenatal diagnosis and carrier detection, and in the search for more effective therapies. The opening chapter identifies the clinical features that

distinguish the various inherited ataxic syndromes and presents a classification based on etiology, mode of inheritance, age of onset, and associated clinical features. A major portion of the book focuses on current clinical and molecular genetic studies of different forms of inherited ataxia. Coverage includes a molecular analysis of the Friedreich's ataxia locus and extensive studies on autosomal recessive spastic ataxia of Charlevoix-Saguenay, ataxia telangiectasia, dominantly inherited spinocerebellar ataxias, Machado-Joseph disease, and inherited prion diseases. The contributors provide detailed information on the various clinical phenotypes of each form of inherited ataxia and thoroughly explain the use of linkage analysis and other molecular genetic techniques to localize and isolate the genes responsible for these diseases. The book also reviews the most significant research findings on neurotransmitters in the cerebellum, on the phosphoinositide second messenger system in cerebellar degenerative disorders, and on oligodendrocyte-associated and myelin-associated inhibitors of neurite growth in the adult nervous system. The contributors assess recent progress in developing drugs for treatment of ataxias and other cerebellar movement disorders and identify new targets for pharmacological intervention. Experimental therapeutic observations on cerebellar grafting in heredodegenerative ataxia are also presented. This volume is an invaluable reference for clinicians treating patients with ataxias or counseling families at risk for inherited neurological diseases. It is also a rich source of ideas for molecular geneticists and for neuroscientists investigating disorders of the cerebellum.

A Practical Approach to Diagnosis and Management Elsevier

This book provides a cutting-edge review of polyglutamine disorders. It primarily focuses on two main aspects: (1) the mechanisms underlying the pathologies ' development and progression, and (2) the therapeutic strategies that are currently being explored to stop or delay disease progression. Polyglutamine (polyQ) disorders are a group of inherited neurodegenerative diseases with a fatal outcome that are caused by an abnormal expansion of a coding trinucleotide repeat (CAG), which is then translated in an abnormal protein with an elongated glutamine tract (Q). To date, nine polyQ disorders have been identified and described: dentatorubral-pallidoluysian atrophy (DRPLA); Huntington ' s disease (HD); spinal – bulbar muscular atrophy (SBMA); and six spinocerebellar ataxias (SCA 1, 2, 3, 6, 7, and 17). The genetic basis of polyQ disorders is well established and described, and despite important advances that have opened up the possibility of generating genetic models of the disease, the mechanisms that cause neuronal degeneration are still largely unknown and there is currently no treatment available for these disorders. Further, it is believed that the different polyQ may share some mechanisms and pathways contributing to neurodegeneration and disease progression.

Genetic Counseling for Adult Neurogenetic Disease Lippincott Williams & Wilkins

This book constitutes the thoroughly refereed post-conference proceedings of the 12th International Conference on Smart Card Research and Advanced Applications, CARDIS 2013, held in Berlin, Germany, in November 2013. The 17 revised full papers presented in this book were carefully reviewed and selected from 47 submissions. The papers are organized in topical sections on security technologies; attacks on masking; side channel attacks; software and protocol analysis; side channel countermeasures; and side channel and fault attacks.