Respiratory System Research Paper

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U.S. Government Research & Development Reports 1971
A Module Guide for the Study of the Circulatory and Respiratory System Noel John A. Manuel
The Lung-Air Sac System of Birds John Maina 2005-09-22 In biology, few organs have been as elusive as the lung-air sac system of birds. Considerable progress has recently been made to fill the gaps in the knowledge. While summarizing and building on earlier observations and ideas, this book provides cutting-edge details on the development, structure, function, and the evolutionary design of the avian respiratory system. Outlining the mechanisms and principles through which biological complexity and functional novelty have been crafted in a unique gas exchanger, this account will provoke further inquiries on the many still uncertain issues. The specific goal here was to highlight the uniqueness of the design of the avian respiratory system and the factors that obligated it.
Clinical Research and Practice Mieczyslaw Pokorski 2017-08-18 This book is a blend of medical research and clinical practice. Advancements in practice are inextricably bound to have research underpinnings. The articles highlight a range of practical topics. The respiratory tract is upfront as the first line of defense of the organism. Virological and bacteriological aspects of the infections that continue to be a scourge worldwide, influenza and tuberculosis, are dealt with. Sleep disordered breathing is another hot topic. Allergy and atopy, and the role of nutraceuticals in providing anticancer benefits due to the inhibitory effects on tumor growth and angiogenesis are referred to. Other chapters describe the use of mesenchymal stem cells for regeneration of the worn away cartilage tissue in the knee. The assessment and management of cognitive decline, sarcopenia and frailty of old age also figure prominently in the texts. The book is an attempt to demonstrate the viability of a bench-to-bedside design in point-of-care patient applications. Hopefully, it will be a source of information on interdisciplinary medical research advancements, addressing the needs of medical professionals, from scientists to clinicians and allied health professionals.
Noninvasive Ventilation in Sleep Medicine and Pulmonary Critical Care Antonio M. Esquinas 2020-05-28 This book is an introduction to a comprehensive analysis of recent advances and clinical research in noninvasive mechanical ventilation (NIV) in Pulmonary, Critical Care, and Sleep Medicine. The objective of the book is to increase the knowledge and understanding of the reader in the best clinical practice in three main sections. A selected international group of experts in the field of noninvasive ventilation formed a panel to provide an update on the recent literature in the application and efficient utilization of NIV in Pulmonary, Critical Care, and Sleep Medicine. Each particular section will discuss the application of NIV in different disease process. The authors summarized the main results of the recent trials, clinical and technological advances, expert opinions, and practical guidelines. Chapters, summarized by expert committee, provide a “deep and exhaustive critical analysis and summary” of the recent advances in the field of NIV, presented as key points and/recommendations for the best clinical practice from articles published in the last decade. The content of the book will serve as a resource and a tool to the practicing physicians toward NIV. Main objective is to increase their proficiency in management of different pathophysiological aspects of the respiratory system. In this line, the book offers to the readers, who are seeking the latest recommendations, the future research directions in noninvasive mechanical ventilation. Table of contents describe and analyze, the items trend setters in noninvasive ventilation, organized in three main sections, “pulmonary”, “critical care” and “sleep medicine”, using the primary keyword related with term “noninvasive mechanical ventilation” as search term associated with “secondary keywords” studies from a period of 2018 to 2019. This searching methodology and analysis define this unique book to the approach in noninvasive mechanical ventilation for best clinical practice, research, clinical study designs and critical analysis, how noninvasive ventilation is current and trending. Based on this form of conception of book updated, editors and authors consider that this book opens a new and original vision for adequate knowledge and deep updated based on key publications in the period under review, very useful for clinical practice, studies designs and potential new trends in the use of noninvasive ventilation. As such, it is a unique update book resource in noninvasive ventilation in pulmonary, critical care and sleep medicine that may influence current clinical practice and future studies. With ultimate goal is better care and outcome for our patients.
Fundamental Medical and Engineering Investigations on Protective Artificial Respiration Michael Klaas 2011-04-15 This volume contains a collection of papers from the research program “Protective Artificial Respiration (PAR)”. In 2005 the German Research Association DFG launched the research program PAR which is a joint initiative of medicine and fluid mechanics. The main long-term objective of this program is the development of a more protective artificial respiratory system to reduce the physical stress of patients undergoing artificial respiration. To satisfy this goal 11 projects have been defined. In each of these projects scientists from medicine and fluid mechanics do collaborate in several experimental and numerical investigations to improve the fundamental knowledge on respiration and to develop a more individual artificial breathing concept.
Respiratory Disease and Nutrition Hiam Abdala-Valencia 2020-09-04 Most complex respiratory conditions invoke interactions between genetic and environmental factors, such as smoking, pollution, and diet. There is increasing evidence that diet and nutrition are important factors, not only in disease prevention, but also in their contribution to the chronicity and heterogeneity of lung disorders. Nutrients exert potent effects on metabolism through a variety of regulatory mechanisms, resulting in local and systemic changes in metabolite levels. In this issue of Nutrients, we would like to bring together papers dealing with the topic of "Respiratory Diseases and Nutrition". We welcome manuscripts detailing human and animal studies focused on the roles of dietary and metabolic factors in the initiation and progression of respiratory diseases, including, but not limited to, chronic obstructive pulmonary disease (COPD) and asthma. In vitro studies aimed at elucidating the potential molecular mechanisms of diet-metabolic interactions are also invited. We welcome different types of manuscript submissions, including original research articles and up-to-date reviews and commentaries.
Scientific and Technical Aerospace Reports 1995
Progress in Medical Research Mieczyslaw Pokorski 2018-08-21 This book is a compendium of articles providing insights into a range of contemporary ideas concerning the core yet unsettled clinical issues. Important aspects of pulmonary disorders are tackled such as occupational respiratory health hazards, asthma, or the role of vitamin D in obstructive airway diseases. Genotyping offers a clear promise in the diagnostics of chronic pulmonary lesions of autoimmune background. Cardiac and respiratory-driven pulsation of cerebrospinal fluid content offers novel arguments in the pathophysiologic savvy of a range of brain dysfunctional conditions, including respiratory-related hypoxic pathologies. Some other articles tackle the heady topics of rehabilitation medicine, offering an insight into research-underpinned diagnostics and practical management solutions in a range of musculoskeletal disorders and injuries that affect the human body's movement, particularly those controlled by the autonomic nervous system. The book is addressed to clinicians, researchers, physiotherapists, and medical professionals engaged in patient care.
Petrodiesel Fuels Ozcan Konur 2021-05-06 This third volume of the handbook presents a representative sample of the population papers in the field of petrodiesel fuels. Following the substantial public concerns on the adverse impact of the emissions from petrodiesel fuels on the environment and human health, the research has intensified in the areas related to the reduction of these adverse effects. Thus, bioremediation of spills from crude oils and petrodiesel fuels at sea and soils as well as desulfurization of petrodiesel fuels have emerged as publicly important research areas. Similarly, the emissions from diesel fuel exhausts, due to their adverse effects on both human health and environment, have been researched more in recent years. These emissions cover particulate emissions, aerosol emissions, and NOx emissions. Research on the adverse impact of petrodiesel fuel exhaust emissions on human health has primarily progressed along the lines of respiratory illnesses, cancer, and other illnesses, such as cardiovascular illnesses, brain illnesses, and reproductive system illnesses, through human, animal, and in vitro studies. It is clear that these illnesses caused by the petrodiesel fuel

exhaust emissions have been one of the most significant reasons to develop alternative biodiesel fuels. Part IX presents a representative sample of the population papers in the field of crude oils covering major research fronts. It covers crude oil spills in general, crude oil spills and their cleanup, properties and removal of crude oils, biodegradation of crude oil-contaminated soils, and crude oil recovery besides an overview paper. Part X presents a representative sample of the population papers in the field of petrodiesel fuels in general covering major research fronts. It covers combustion of biodiesel fuels in diesel engines, bioremediation of biodiesel fuel-contaminated soils, biodiesel power generation, and desulfurization of diesel fuels besides an overview paper. Part XI presents a representative sample of the population papers in the field of emissions from petrodiesel fuels covering major research fronts. It covers diesel emission mitigation, diesel particulate emissions, and diesel NOx emissions, besides an overview paper. Part XII presents a representative sample of the population papers in the field of the health impact of the emissions from petrodiesel fuels covering major research fronts. It covers respiratory illnesses, cancer, cardiovascular, brain, and reproductive system illnesses, besides an overview paper. This book will be useful to academics and professionals in the fields of Energy Fuels, Public Environmental Occupational Health, Pharmacology, Pharmacy, Immunology, Respiratory System, Allergy, and Oncology. Ozcan Konur is both a materials scientist and social scientist by training. He has published around 200 journal papers, book chapters, and conference papers. He has focused on the bioenergy and biofuels in recent years. In 2018, he edited Bioenergy and Biofuels, which brought together the work of over 30 experts in their respective field. He also edited the Handbook of Algal Science, Technology, and Medicine with a strong section on the algal biofuels in 2020.

Collected Rand Memoranda. 1947 Working papers and research memoranda published from 1956 to 1970 are located in Walter Library Closed Storage. In late 1961, the series title changed from Research memorandum to Rand memorandum. Selectively cataloged Reports may be located by means of a title, author or series search in MNCAT.

Intra/Extracellular Dynamics of the Respiratory System and Global Airway Disease De Yun Wang 2020-09-02

Heater at Less Cost, Rather More Benefit. A Concept Proposal Dr. Roshan Adhikari 2019-05-28 Research Paper (postgraduate) from the year 2019 in the subject Energy Sciences, , course: Sociology, Science, Technology, Management, etc., language: English, abstract: The carbon burning is a practice which is attributive to global warming and similarly the solar heaters are also affecting the environment with harmful means to body organs because of charged sub-atomic particles. The burning fire is harmful to body in that it can cause suffocation and respiratory problems, while electric heaters and ACs are similarly health problematic to bring dehydration of body and the disease of respiratory system like asthma. The demand of the doctors and heat basking consumers is the kind of heating system which means to be without dehydrating, blood clotting and suffocating effects on body. For this purpose a self-generation of heat energy is required which should not need fire, electricity, chemical reaction process, rather than the physical change mechanism had nothing to do with a pollution of environmental construct. The design of such a prospective facility for both health and global milieu has been made feasible after four year serial researches of this present author. The heater had without the use of fire and electricity may be manufactured by virtue of exothermic reaction between inorganic chemicals which will pollute respiratory system through surrounding atmosphere of a room, besides its very expensiveness. A flameless ration heater, or FRH, according to general report from Administration, is a water-activated exothermic chemical heater included with meals, ready-to-eat, that is used to heat the food. US military specifications for such an easily portable heater require the same as being capable of raising the temperature of an eight-ounce (226.8 g) entree by 100 °F (56 °C) in twelve minutes, and that it has no visible flame.

Digestive and Respiratory Systems Vishram Singh 2014-11-10 Digestive and Respiratory Systems Digestive and Respiratory Systems

Breathing, Emotion and Evolution 2014-09-04 Respiration is one of the most basic motor activities crucial for survival of the individual. It is under total control of the central nervous system, which adjusts respiratory depth and frequency depending on the circumstances the individual finds itself. For this reason this volume not only reviews the basic control systems of respiration, located in the caudal brainstem, but also the higher brain regions, that change depth and frequency of respiration. Scientific knowledge of these systems is crucial for understanding the problems in the many patients suffering from respiratory failure. This well-established international series examines major areas of basic and clinical research within neuroscience, as well as emerging subfields.

Targeting Chronic Inflammatory Lung Diseases Using Advanced Drug Delivery Systems Kamal Dua 2020-08-04 Targeting Chronic Inflammatory Lung Diseases Using Advanced Drug Delivery Systems explores the development of novel therapeutics and diagnostics to improve pulmonary disease management, looking down to the nanoscale level for an efficient system of targeting and managing respiratory disease. The book examines numerous nanoparticle-based drug systems such as nanocrystals, dendrimers, polymeric micelles, protein-based, carbon nanotube, and liposomes that can offer advantages over traditional drug delivery systems. Starting with a brief introduction on different types of nanoparticles in respiratory disease conditions, the book then focuses on current trends in disease pathology that use different in vitro and in vivo models. The comprehensive resource is designed for those new to the field and to specialized scientists and researchers involved in pulmonary research and drug development. Explores recent perspectives and challenges regarding the management and diagnosis of chronic respiratory diseases Provides insights into how advanced drug delivery systems can be effectively formulated and delivered for the management of various pulmonary diseases Includes the most recent information on diagnostic methods and treatment strategies using controlled drug delivery systems (including nanotechnology)

Lung Function Testing in the 21st Century Clara Ionescu 2018-11-19 Lung Function Testing in the 21st Century: Methodologies and Tools Bridging Engineering to Clinical Practice covers the complete aspects of lung function testing, ranging from standardized to newly introduced (IOS, FOT) methods. It provides an updated overview of advances in respiratory engineering, along with advice on which lung function tests are appropriate for which purpose. The author discusses non-standardized lung function testing, methods, clinical tests, diagnosis and future perspectives. Lung function measurement devices and protocols are also covered. This book covers multidisciplinary domains, bringing new technology ideas from mathematics, physics, biology and engineering into the field of respiratory engineering. Users will find a single resource that brings together all of the disparate information on lung function testing technology currently contained in many journal articles. Bridges the gap between engineers and clinicians with regard to pulmonary function techniques, from research, to design and clinical practice Provides a comprehensive overview of all tools available for lung function testing, detailing their pros and cons Includes information on incorporating new devices into existing procedures, along with methods for lung function testing

The Microbiology of Respiratory System Infections Kateryna Kon 2016-06-20 The Microbiology of Respiratory System Infections reviews modern approaches in the diagnosis, treatment, and prophylaxis of respiratory system infections. The book is very useful for researchers, scientists, academics, medical practitioners, graduate and postgraduate students, and specialists from pharmaceutical and laboratory diagnostic companies. The book has been divided into three sections according to the types of respiratory pathogens. The first section contains reviews on the most common and epidemiologically important respiratory viruses, such as influenza virus, severe acute respiratory system coronavirus, and recently discovered Middle East respiratory syndrome coronavirus. The second section is devoted to bacterial and fungal pathogens, which discusses etiology and pathogenesis including infections in patients with compromised immune system, and infections caused by fungal pathogens, such as Aspergillus and Pneumocystis. The third section incorporates treatment approaches against different types of bacterial infections of the lower respiratory tract. This section reviews classical antimicrobial and phytomedical approaches as well as the application of nanotechnology against respiratory pathogens. Offers the most up to date information on the microbiology of lower respiratory system infections Features contributors from across the world, presenting questions of interest to readers of both developed and developing countries Reviews the most common and epidemiologically important respiratory viruses Discusses the etiology and pathogenesis of bacterial and fungal pathogens including infections in patients with compromised immune system, and infections caused by fungal pathogens, such as Aspergillus and Pneumocystis

The Biology of the Avian Respiratory System John N. Maina 2017-04-28 The central focus of this book is the avian respiratory system. The authors explain why the respiratory system of modern birds is built the way it is and works the way that it does. Birds have been and continue to attract particular interest to biologists. The more birds are studied, the more it is appreciated that the existence of human-kind on earth very much depends directly and indirectly on the existence of birds. Regarding the avian respiratory system, published works are scattered in biological journals of fields like physiology, behavior, anatomy/morphology and ecology while others appear in as far afield as paleontology and geology. The contributors to this book are world-renowned experts in their various fields of study. Special attention is given to the evolution, the structure, the function and the development of the lung-air sac system. Readers will not only discover the origin of birds but will also learn how the respiratory system of theropod dinosaurs worked and may have transformed into the avian one. In addition, the work explores such aspects as swallowing mechanism in birds, the adaptations that have evolved for flight at extreme altitude and gas exchange in eggs. It is a highly informative and carefully presented work that provides cutting edge scientific insights for

readers with an interest in the respiratory biology and the evolution of birds.
Respiratory Physiology Henry Prange 1996 This exciting volume offers a unique approach to respiratory physiology examining the subject based upon fundamental biological, chemical, and physical principles. At each step, the book asks "Does it make sense?". This allows readers to understand not only how gas exchange works, but why scientifically and logically, gas exchange must work as it does. This approach leads to important practical benefits, including a rational understanding of the bases of both physiological acclimation and respiratory therapeutics; insight into what to expect when organisms respond to environmental on pathological challenges; and improved ability to synthesize and explore relationships between what may otherwise seem to be unrelated functions. The insight into respiratory physiology provided by this important text applies to a broad range of disciplines. Health professionals will find their ability to care for patients enhanced by their improved understanding of the functioning of gas exchange in the respiratory system. In addition, the book's thorough coverage provides direction for zoologists and physiologists interested in the development and function of animal respiratory systems.
Allergens and Respiratory Pollutants Marc A. Williams 2011-07-18 Allergens and respiratory pollutants is a collection of 12 authoritative papers that draws upon the collective expertise of world leaders in the fields of innate immunity, immunotoxicology and pulmonary biology. The book critically explores the biological and immunological mechanisms that contribute to immune dysfunction on exposure to allergens and the susceptibility to infectious disease on exposure to ambient pollutants. The clinical relevance of exposure to ambient airborne xenobiotics is critically discussed and collectively, this book provides an educational forum that links the health effects of environmental exposures, immune dysfunction and inflammatory airways disease. Discusses recent advances in our understanding of cell-mediated innate immune mechanisms that occur during allergic inflammation and provides important timely coverage of diseases of concern and how such diseases are influenced by a dysfunctional immune system Provides useful information on linking environmental 'danger signals' that provoke immune dysfunction and exacerbation of existing disease Draws upon the collective expertise of an international college of leaders in the field, but also provides chapters that provide essential reference material
Respiratory Diseases in Cattle W.B. Martin 1978-10-31 Not so many years ago little attention was paid to non-parasitic respiratory diseases of cattle because they seemed of minor importance. However, in the past twenty years, as the number of cattle kept on any farm unit increased under economic pressures, there has been a concomitant rise in the prevalence of respiratory illness. Investigations into cattle respiratory diseases have become a significant part of the research effort in most countries of Europe. Initially much work went into finding, like the alchemist's stone, the orgdnism responsible for causing cattle respiratory disease. Many viruses were isolated and over the years a long list of those recovered from the respiratory tract of cattle has been prepared. Unfortunately, few of these viruses on their own are recognised as proven pathogens and no single virus provides the complete aetiological answer to bovine respiratory disease. More recently, perhaps in despair, g~eater attention has been directed to the role of mycoplasma and, additionally. a revival of interest has taken place in the significant part played by bacteria in the later stages of res piratory disease. Now, phrases such as "multifactorial disease" are being commonly used to describe the complex situation with respiratory disease.
The Mechanics of Inhaled Pharmaceutical Aerosols Warren H. Finlay 2001-07-20 The Mechanics of Inhaled Pharmaceutical Aerosols, An Introduction provides a unique and comprehensive treatment of the mechanics of inhaled pharmaceutical aerosols. The book covers a wide range of topics and many new perspectives are given by drawing on research from a variety of fields. Novel, in-depth expositions of the most common delivery devices are given, including nebulizers, dry powder inhalers and propellant metered dose inhalers. The behaviour of aerosols in the respiratory tract is explained in detail, with complete coverage of the fundamentals of current deposition models. The book begins by providing a comprehensive introduction to aspects of aerosol mechanics that are relevant to inhaled pharmaceutical aerosols. It then gives an exhaustive pedagogical description of the behaviour of evaporating and condensing droplets (both aqueous and propellant-based), an introductory chapter on lung geometry and inhalation patterns, and coverage of relevant aspects of fluid mechanics in the lung. Finally, the book provides invaluable, detailed coverage on the mechanics of common pharmaceutical aerosol delivery systems and deposition in the respiratory tract. Throughout the book are many detailed numerical examples that apply the salient concepts to typical inhaled pharmaceutical aerosols. This book will be of interest to scientists and engineers involved in the research and development of inhaled pharmaceutical aerosol products. Experienced practitioners will find many new perspectives that will greatly enhance their understanding of this complex and rapidly growing field. For those delivering therapeutic agents to the lung, this book is a must-have. Students and academics will find this book an invaluable tool and for newcomers it is a worthy guide to the diverse fields that must be understood to work in the area of inhaled pharmaceutical aerosols.
Immunopharmacology of Respiratory System Stephen T. Holgate 1995-10-18 Immunopharmacology represents the boundary between the immune system and chemical mediators of the inflammatory and neuroendocrine responses. The subject as applied to the respiratory system embraces most of the common non-malignant lung diseases of which asthma and allied disorders are the most prevalent. An understanding of the underlying mechanisms of the disorders provides rationale for prevention and drug treatment as well as creating opportunities for novel drug development. Immunopharmacology of Respiratory System embraces all of these principles and should enable the reader to become rapidly updated in an area of medical importance. Focuses on aspects of disease pathogenesis that are common to a variety of lung disorders Includes coverage of the mechanisms of asthma - origin, progression, and novel therapeutic interventions This volume is another in the "Systems" section of the Handbook of Immunopharmacology
Fundamental Medical and Engineering Investigations on Protective Artificial Respiration Michael Klaas 2011-04-11 This volume contains a collection of papers from the research program “Protective Artificial Respiration (PAR)”. In 2005 the German Research Association DFG launched the research program PAR which is a joint initiative of medicine and fluid mechanics. The main long-term objective of this program is the development of a more protective artificial respiratory system to reduce the physical stress of patients undergoing artificial respiration. To satisfy this goal 11 projects have been defined. In each of these projects scientists from medicine and fluid mechanics do collaborate in several experimental and numerical investigations to improve the fundamental knowledge on respiration and to develop a more individual artificial breathing concept.
Current Trends in Immunity and Respiratory Infections Mieczyslaw Pokorski 2018-09-21 The purpose of this book is to disseminate and deliberate on the latest knowledge concerning immunity and its role in protection and fight against microorganism invasion. The articles tackle both humoral and cellular immunity, and their interconnectivity. The former involves B cells that recognize invading pathogens and create the antibody-mediated response, which when memorized provides future immunity. The latter involves mostly T cells, exemplified by cytotoxic or killer cell destroying the pathogens, or helper cells stimulating B cells to produce antibodies to bind and neutralize the pathogens. T cells act through release of cytokines, interleukins, and other bioactive mediators. Neutrophils play a key role in innate immunity against bacterial infections. The process of NETosis is a recently unraveled sophisticated defense mechanism, consisting of the formation of neutrophil extracellular traps that catch, immobilize, and remove pathogens from the body. Dysfunction of immunity is indisputably conducive to the propensity for infections, particularly respiratory tract infections, as the airways are the first line of defense against invading pathogens. Pathogens can rapidly evolve and adapt to avoid detection by the immune system. The case in point is the influenza virus. The articles report on the epidemiology, diagnostics, serology, complications, and the process of acquired immunity due to vaccination against influenza and influenza-like infections in recent epidemic seasons. The book is a blend of medical research and practice. It is intended for academic scientists, research scholars, clinicians, family doctors, and healthcare professionals.
Asthma and COPD Peter J. Barnes 2009 The Second Edition of Asthma and COPD: Basic Mechanisms and Clinical Management continues to provide a unique and authoritative comparison of asthma and COPD. Written and edited by the world's leading experts, it continues to be a comprehensive review of the most recent understanding of the basic mechanisms of both conditions, specifically comparing their etiology, pathogenesis, and treatments. Each chapter considers Asthma and COPD in side-by-side contrast and comparison - not in isolation - in the context of mechanism, triggers, assessments, therapies, and clinical management Presents the latest and most comprehensive understandings of the mechanisms of inflammation in both Asthma and COPD Most extensive reference to primary literature on both Asthma and COPD in one source. Easy-to-read summaries of the latest advances alongside clear illustrations
Encyclopedia of Respiratory Medicine 2021-10-15 The Encyclopedia of Respiratory Medicine, Second Edition explores the key processes of lung diseases and their diagnosis and management. It dissects the molecular and cellular biology, physiology and immunology that underpin normal lung function as well as the aberrations that occur in respiratory diseases, from common disorders such as asthma and COPD to rarer lung diseases such as cystic fibrosis, interstitial lung diseases and pulmonary hypertension. The pace of science and impact on our understanding of lung disease has been astonishing over the last decade and here we update on the most recent scientific developments that will underpin the next generation of advances in how we diagnose and treat respiratory disorders. Written in at a time when the globe is in the grip of respiratory pandemic, lung disease has never been so prominent in the public and political conscious. This completely overhauled new edition encompasses 415 chapters, across 6 volumes, from renowned authorities across

the globe covering the scientific basis of respiratory medicine, current concepts of underlying science and disease pathogenesis, as well as a review of current care and treatment of respiratory diseases. The vast majority of chapters are brand new, with a small portion being thoroughly revised and updated from the previous edition to reflect the significant developments that have taken place in the scientific basis of respiratory diseases as well as the progress in adopting new treatment modalities. This new edition of the Encyclopedia will provide new researchers in respiratory medicine with a solid foundation in unfamiliar topics and will update more experienced researchers seeking to step outside their core areas of research and to put their work into a broader context. A feature throughout is concise and clear prose that will be appropriate for non-specialists. Each article also contains clear diagrams that can be used as teaching aids. Encyclopedic coverage of respiratory medicine and research: a 'one-stop' resource covering the entire scope of modern respiratory medicine Renowned Editorial and Contributor board: a truly global collaboration bringing together some of the most authoritative voices in respiratory medicine Educational and foundational resource: chapters are concise and accessible, providing an authoritative introduction for non-specialists, as well as up-to-date, foundational content for those familiar with the field. The thematic structure represents a valuable compass for navigating the field across its main branches and for finding information quickly Multimedia-rich content: contains hundreds of clear and helpful illustrations that can be used as teaching aids Subject index, hyperlinked cross-references and references: these features will make it easy to find specific topics, related articles and cited literature

Pulmonary Pathology E-Book Dani S. Zander 2016-12-14 Now fully revised to include recent advances in the field, the second edition of Pulmonary Pathology, a volume in the Foundations in Diagnostic Pathology series, is an essential foundation text for residents and pathologists. The popular template format makes it easy to use, and new information throughout brings you up to date with what’s new in pulmonary pathology and pulmonary medicine, including molecular genetics and personalized medicine therapies. Practical and affordable, this resource by Drs. Dani S. Zander and Carol F. Farver is ideal for study and review as well as everyday clinical practice. Coverage of both common and rare neoplastic and non-neoplastic diseases of the lung and pleura. A focus primarily on diagnosis, with correlations to clinical and radiographic characteristics. Clinical and Pathologic Features summarized in quick-reference boxes for fast retrieval of information. Hundreds of photomicrographs and gross photographs – most in full color – depict important pathologic features, enabling you to form a differential diagnosis and compare your findings with actual cases. Contributions from internationally recognized pathologists, keeping you up to date with the latest information in the field. Consult this title on your favorite e-reader, conduct rapid searches, and adjust font sizes for optimal readability. Virtual Microscope slides now available online. Molecular genetics and personalized medicine therapies included throughout. New classification and approaches to diagnosis and management of pediatric diffuse lung diseases. 9/11-related lung disease and other recently described environmental lung diseases. Information on susceptibility genes for individual diseases. Viral linkage and new therapies for idiopathic pulmonary fibrosis, and well as information on endobronchial ultrasound-guided needle aspiration.

Fish Respiration Steve F. Perry 1998-07-06 Fish Respiration synthesizes classical literature and highlights recent developments pertaining to the respiratory physiology of fishes. Compiled by a team of international researchers, this comprehensive and authoritative review of the respiratory physiology of fishes will appeal to any comparative physiologist interested in this subject. First volume in the series dedicated solely to the respiratory system Contributors are world leaders in their respective areas Includes completely up-to-date material on the topic of fish physiology

Pulmonary Pathology Dani S. Zander 2017-02-17 Now fully revised to include recent advances in the field, the second edition of Pulmonary Pathology, a volume in the Foundations in Diagnostic Pathology series, is an essential foundation text for residents and pathologists. The popular template format makes it easy to use, and new information throughout brings you up to date with what's new in pulmonary pathology and pulmonary medicine, including molecular genetics and personalized medicine therapies. Practical and affordable, this resource by Drs. Dani S. Zander and Carol F. Farver is ideal for study and review as well as everyday clinical practice. Coverage of both common and rare neoplastic and non-neoplastic diseases of the lung and pleura. A focus primarily on diagnosis, with correlations to clinical and radiographic characteristics. Clinical and Pathologic Features summarized in quick-reference boxes for fast retrieval of information. Hundreds of photomicrographs and gross photographs - most in full color - depict important pathologic features, enabling you to form a differential diagnosis and compare your findings with actual cases. Contributions from internationally recognized pathologists, keeping you up to date with the latest information in the field. Expert ConsultT eBook version included with purchase. This enhanced eBook experience allows you to search all of the text, figures, and references from the book on a variety of devices. Virtual Microscope slides now available online. Molecular genetics and personalized medicine therapies included throughout. New classification and approaches to diagnosis and management of pediatric diffuse lung diseases. 9/11-related lung disease and other recently described environmental lung diseases. Information on susceptibility genes for individual diseases. Viral linkage and new therapies for idiopathic pulmonary fibrosis, and well as information on endobronchial ultrasound-guided needle aspiration.

The Respiratory System Sitaraman Subramanian 2004

Essentials of Epidemiology in Public Health Ann Aschengrau 2008-07-07 The second edition of this best selling text is comprehensive introduction to principles applied in the practice of epidemiology in public health. Featuring the most current data and includes new problems, this revision incorporates modern ideas in epidemiological thinking that have been largely omitted in other textbooks. This edition will familiarize readers with terminology and key concepts in the design, analysis, and interpretation of epidemiological research, giving students the tools they need to critically evaluate scientific literature. Broad in scope, the text opens with five chapters covering the basic epidemiologic concepts and data sources. A major emphasis is placed on study design, with separate chapters devoted to each of the three main analytic designs: experimental, cohort, and case-control studies. Full chapters on bias, confounding, and random error, including the roll of statistics in epidemiology, ensure that students are well-equipped with the necessary information to interpret the results of epidemiologic studies. An entire chapter is also devoted to the concept of effect measure modification, an often-neglected topic in introductory textbooks. Up-to-date examples from the epidemiologic literature on diseases of public health importance are provided throughout the book.

The Central Nervous System Control of Respiration 2014-04-17 Respiration is one of the most basic motor activities crucial for survival of the individual. It is under total control of the central nervous system, which adjusts respiratory depth and frequency depending on the circumstances the individual finds itself. For this reason this volume not only reviews the basic control systems of respiration, located in the caudal brainstem, but also the higher brain regions, that change depth and frequency of respiration. Scientific knowledge of these systems is crucial for understanding the problems in the many patients suffering from respiratory failure. This well-established international series examines major areas of basic and clinical research within neuroscience, as well as emerging subfields

Epidemiology of influenza and other acute respiratory diseases 1983

Respiration and metabolism of embryonic vertebrates Roger S. Seymour 2011-10-09 The papers in this volume were presented at an international symposium, held in South Australia on September 8-10, 1983. The purpose of the meeting was to present the comparative physiology of gas exchange, water balance and energet ics of developing vertebrate embryos. contributions were invited from leading research workers in an attempt to represent the forefront of investigation of all vertebrate classes and to promote a broadly comparative approach to the study of embryonic physiology. These proceedings therefore reflect the current level of research activity focus ing on each group of vertebrates. While considerable expansion and specializa tion has occurred in the area of avian embryos over the last decade, work on reptilian embryos is less developed and that on fish and amphibians is still in its infancy. Although a great deal is known about respiration and metabolism in embryos of placental mammals, the physiology associated with the curious mode of development of monotreme and marsupial embryos has not been examined until recently. In this symposium. the well-studied vertebrate classes are repre sented primarily by specific research papers that document original work. These are balanced by more extensive reviews of the lesser known classes.

Pulmonary Rehabilitation Anne E. Holland 2021-09-01 Pulmonary rehabilitation is an effective treatment for people with a range of chronic lung diseases. In recent years, there have been substantial advances in the science underpinning pulmonary rehabilitation. Advances have been seen in the patient groups in whom it is indicated; in the breadth of programme content; in new methods of delivery; and not least, in important outcomes. This Monograph brings together scientific and clinical expertise in pulmonary rehabilitation, with the aim of optimising its delivery in clinical practice.

U.S. Government Research Reports 1964

Infectious Pathology of the Respiratory Tract Vsevolod Zinserling 2021-02-10 This book discusses all aspects of pulmonary pathology, including different bacterial, viral, fungal, mycoplasma and protozoan pathogens, accompanied by illustrations that show macro- and histopathological changes. It also presents microbiological, epidemiological and clinical data, with a particular focus on pneumonias of different bacterial aetiologies, influenza, and other viral infections. Further, the book explores the importance of mixed infections, including those in the late stages of HIV infections and virus-bacterial

pneumonias, as well as pathological changes in modern tuberculosis, lung granuloma, and respiratory tract inflammation in different age groups.
Stem Cell Innovation in Health & Disease: The Lung, Volume 2 Ahmed El-Hashash 2021-06-10 In the lung, more recent data have been accumulated on lung stem cell biology/function and the potential applications of stem cells in pulmonary diseases that are facilitated by the recent development of a broad range of cutting edge in vitro and in vivo research tools and approaches, including mouse and human organoid cultures, genetic editing in vitro and in vivo, human induced pluripotent cell (iPS cell) models of disease, haploid cells for genetic as well as compound screening paradigms, genetically engineered mice, and stem cell transplantation to cure diseases. Stem Cell Innovation in Health and Disease: Volume 2: The Lung, contains two major sections describing cutting edge research for understanding stem cell functions in the lung and respiratory system, and for developing methods to bring stem cells from bench to bedside; respectively. Each section includes insights ranging from using mouse and human organoid cultures, genetic editing in vitro and in vivo, and human induced pluripotent cells (iPSCs) to study stem cell functions and model lung diseases, through the cutting-edge research aiming to bring stem cells from bench to bedside, including the potential application of iPSCs, ESCs and blood stem cells (stem cell transplants) in the treatment of lung diseases/disorders. This book, therefore, discusses the fact-based promise of stem cells and regenerative medicine in the lung in the real world. Provides intensive scientific background and most recent information on cutting edge research to understand respiratory stem cell functions and develop methods to bring stem cells from bench to bedside for different lung diseases Analyzes the current state, opportunities, and challenges of innovative technologies and stem cells from bench to bed, including organoids and iPSC-derived alveolar epithelia cell therapy in the lung Contains two major sections describing cutting-edge research for understanding stem cell functions and for developing methods specific to the lung