

Pathology Of Aging Syrian Hamsters

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Using Animals in Intramural Research 1999

The Experimental Animal in Biomedical Research Bernard E. Rollin 1995-03-13 This volume focuses on considerations that maximize both scientific benefit and animal well-being for major species of animals used in biomedical research. Each species is discussed in terms of uses in research; basic biology; husbandry requirements; proper handling; disease control; anesthesia, analgesia, and stress control; natural behavior, behavioral needs, psychological needs, and social needs; and ideal environment for the animals. This book is a must for anyone working with experimental animals.

Pathology of Aging Syrian Hamsters RE. Schmidt 1983

Kidney Disease and Nephrology Index 1979

Quick Bibliography Series 1976

Literature Search National Library of Medicine (U.S.) 1981

The Aging Brain Ted Burch 1981

Guide for the Care and Use of Laboratory Animals Institute of Laboratory Animal Resources (U.S.). Committee on Care and Use of Laboratory Animals 1985 Contains guidelines and bibliography on laboratory animal care, experimentation,

housing, surveillance, euthanasia, and laws.

National Library of Medicine Current Catalog National Library of Medicine (U.S.)

Guide for the Care and Use of Laboratory Animals National Research Council 2011-01-27 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.

Urinary System Thomas C. Jones 2013-03-12 A complete update on the safety testing of foods, drugs, and chemicals in laboratory animals, featuring: - a thorough review of each subject area with extensive revision in line with new information and concepts - electron micrographs in exquisite detail to illustrate results of recent research - the effects of many carcinogens described succinctly and illustrated in detail - neoplasms described in detail and compared with natural and induced tumours in other species - standardised nomenclature. Of interest to those interested in the many applications to human patients, Urinary System: - facilitates uniform interpretation of bioassay results world-wide - provides a basis for understanding mechanisms involved in the functions and malfunctions of the most minute, but important structures of the

kidneys - explains the functional significance of details by identifying the composition of structures at the molecular level. Forming a solid basis for understanding the causes and effects of disease of the urinary system, this is essential reading for pathologists, toxicologists, regulatory agencies, and all those involved in carcinogenicity and toxicity studies.

International Review of Experimental Pathology G. W. Richter 2013-10-22 International Review of Experimental Pathology, Volume 30, is organized around the theme of renal disease. The choice of renal disease reflects both the author's personal interest and the realization that there is a need for such a collection of reviews in this area. There are many new books on renal pathology, but almost all have a clinical rather than experimental orientation. The book opens with a chapter on the pathogenesis of experimentally induced renal papillary necrosis and upper urothelial carcinoma. Subsequent chapters deal with the use of cell cultures in the study of renal diseases; mechanisms of cyclosporine nephrotoxicity in humans and animal systems; spontaneously occurring renal diseases in laboratory animals; and the use of video microscopy to define the reactivity of the renal microvasculature and the hydraulic permeability of the glomerular capillaries. This book will be of interest to a diverse group of readers interested in renal disease. This broad spectrum of potential readership is reflected in the list of contributors which includes, in addition to pathologists, nephrologists, anatomists, veterinarians, and experimental chemists. This volume will also be of interest to transplant surgeons and to pediatricians specializing in renal disease.

Journal of the National Cancer Institute 1986

Pathology of Small Mammal Pets Patricia V. Turner 2017-09-20 Pathology of Small Mammal Pets presents a ready reference for veterinarians, veterinary pathologists, and technicians who work with small mammal companion animals. Provides up-to-date, practical information on common disease conditions in small mammal companion animals Offers chapters logically organized by species, with comprehensive information on diagnosing diseases in each species Takes a practical, system-based approach to individual disease conditions Covers clinical signs, laboratory diagnostics, gross pathology, histopathology, and differential diagnoses in detail Includes relevant information for conventional breeding operations and breeding facilities, with strategies for disease management in herds and colonies Features information on normal anatomy in included species to assist in recognizing pathology

Animal Models of Disease Janice C. Swanson 1989

Rodents National Research Council 1996-08-08 In the 15 years since the last Institute of Laboratory Animal Resources report on the general management of rodents was published, important advances in biomedical research and increased public awareness have created a new environment for animal research. Modern technology-such as insertion of

functional genes from other species into mice or rats, elimination of a single selected gene or function in mice, and the re-creation of elements of the human immune system in mice-has greatly expanded the usefulness of rodents in drug development and as models of human diseases. The technologic requirements of such advanced systems have led to improved understanding and implementation of environmental requirements for the care and use of rodents in research. The intent of this report is to provide current information to laboratory animal scientists (including both animal-care technicians and veterinarians), investigators, research technicians, and administrators on general elements of rodent care and use that should be considered both for optimal design and conduct of research and to meet current standards of care and use.

Cardiovascular and Musculoskeletal Systems Thomas C. Jones 2012-12-06 This is the ninth volume in a series dealing with induced lesions in laboratory animals. The information on pathology and toxicology documented in the series is an aid to scientific institutions, industry and government agencies charged with the safety testing of food, drugs and chemicals.

Pathology of Aging Syrian Hamsters Robert Eugene Schmidt 1983

Endocrine System Thomas C. Jones 2012-12-06 Approximately 10 years have elapsed since the first volume of the International Life Sciences Institute (ILSI) Monographs on Pathology of Laboratory Animals, Endocrine System was completed. New information of interest to pathologists has developed at a rather remarkable pace during the intervening years. Exceptional progress has been made in the routine identification of cell products in endocrine cells. A better understanding has developed of the mechanisms involved in cell metabolism, particularly involving toxins and carcinogens. Clear concepts have developed concerning the significance of some pathologic lesions in the endocrine system and their relation to human health and risk assessment. Standardized nomenclature has developed significantly during the 10-year period since the first volume and is being utilized on an international basis. This has resulted in significant improvement in communication of pathologic data to regulatory agencies and in scientific publications worldwide. This monograph series and others sponsored by ILSI have produced a significant effect on improved communications and the international acceptance of standardized nomenclature. In this second edition, new formats have been used where more appropriate for the subjects to be covered. In many cases, the format used in the first edition still is useful. It is still necessary to recognize the morphologic features of pathologic lesions in order to identify them precisely, an essential step toward development of new insights into pathogenetic mechanisms and their use in decisions

eventually applicable to public health.

Tumours of the Hamster International Agency for Research on Cancer 1996 A comprehensive treatise classifying and describing the spontaneous and induced tumours of the hamster, especially as observed in carcinogenicity testing.

Guide for the care and use of laboratory animals National Research Council (U.S.). Institute of Laboratory Animal Resources (U.S.). Committee on Care and Use of Laboratory Animals 1985

Simulation Models, GIS and Nonpoint-source Pollution David Holloway 1992

Environmental Health Perspectives 1993

Pathology of Laboratory Rodents and Rabbits Stephen W. Barthold 2016-01-04 Now in its fourth edition, Pathology of Laboratory Rodents and Rabbits has become a standard text for veterinary pathologists, laboratory animal veterinarians, students, and others interested in these species. • The standard reference on the pathogenesis and cardinal diagnostic features of diseases of mice, rats, hamsters, gerbils, guinea pigs, and rabbits • Expanded coverage of rabbit disease, normal anatomic features, and biology • Over 450 color photographs illustrating gross and microscopic pathology • Companion website offering images from the text in PowerPoint

Research Awards Index 1978

Animal Models of Disease Cynthia Petrie Smith 1991

The Laboratory Rabbit, Guinea Pig, Hamster, and Other Rodents Mark A. Suckow 2012 The Laboratory Rabbit, Guinea Pig, Hamster, and Other Rodents is a single volume, comprehensive book sanctioned by the American College of Laboratory Animal Medicine (ACLAM), covering the rabbit, guinea pig, hamster, gerbil and other rodents often used in research. This well illustrated reference includes basic biology, anatomy, physiology, behavior, infectious and noninfectious diseases, husbandry and breeding, common experimental methods, and use of the species as a research model. With many expert contributors, this will be an extremely valuable publication for biomedical researchers, laboratory animal veterinarians and other professionals engaged in laboratory animal science. A new gold standard publication from the American College of Laboratory Animal Medicine series One stop resource for advancements in the humane and responsible care of: rabbit, guinea pig, hamster, gerbil, chinchilla, deer mouse, kangaroo rat, cotton rat, sand rat, and degu Includes up-to-date, common experimental methods Organized by species for easy access during bench research

Guide for the Care and Use of Laboratory Animals 1986

Farming Systems Research

Jayne T. MacLean 1989

Current Catalog National Library of Medicine (U.S.) First multi-year cumulation covers six years: 1965-70.

Education and Training in the Care and Use of Laboratory Animals

Histopathology of Preclinical Toxicity Studies Peter Greaves 2011-11-22 Chapter 1: Introduction -- Chapter 2: Integumentary System -- -- Skin and subcutaneous tissue -- Chapter 3: Mammary Gland -- Chapter 4: Haemopoietic and Lymphatic Systems -- -- Blood/bone marrow -- -- Lymphoid system -- -- Lymph nodes -- -- Spleen -- -- Thymus -- -- Lymphoreticular neoplasms -- Chapter 5: Musculoskeletal System -- -- Bone -- -- Joints -- -- Skeletal muscle -- Chapter 6: Respiratory Tract -- -- Nose, nasal sinuses, nasopharynx and pharynx -- -- Larynx and trachea -- -- Bronchi and lungs -- Chapter 7: Cardiovascular System -- -- Heart and pericardium -- -- Systemic blood vessels -- -- Pulmonary blood vessels -- Chapter 8: Gastrointestinal tract -- -- Fore stomach -- -- Stomach (glandular) -- -- Small intestine -- -- Large intestine -- Chapter 9: Liver and Pancreas -- -- Liver -- -- Bile ducts, biliary system -- -- Pancreas -- Chapter 10: Urinary System -- -- Kidney -- -- Urinary bladder -- Chapter 11: Male Genital Tract -- -- Prostate gland -- -- Epididymis -- -- Testis -- Chapter 12: Female Genital Tract -- -- Vagina -- -- Cervix -- -- Uterus -- -- Ovary -- Chapter 13: Endocrine System -- -- Pituitary gland -- -- Adrenal gland -- -- Thyroid gland -- -- Parathyroid gland -- Chapter 14: Nervous System and Special Sense Organs -- -- Brain -- -- Spinal cord, spinal nerve roots, peripheral nerves -- -- Eye -- -- Ear -- Subject index

Guide for the Care and Use of Laboratory Animals Institute for Laboratory Animal Research 1996-08-06 A respected resource for decades, the Guide for the Care and Use of Laboratory Animals has been revised by a committee of experts, based on input from scientists and the public. The Guide incorporates recent research on commonly used species, including farm animals, and includes extensive references. It is organized around major components of animal use: Institutional policies and responsibilities. The committee discusses areas that require policy attention: the role and function of the Institutional Animal Care and Use Committee, protocols for animal care and use, occupational health and safety, personnel qualifications, and other areas. Animal environment, husbandry, and management. The committee offers guidelines on how to design and run a management program, addressing environment, nutrition, sanitation, behavioral and social issues, genetics, nomenclature, and more. Veterinary care. The committee discusses animal procurement and transportation, disease and preventive medicine, and surgery. The Guide addresses pain recognition and relief and issues surrounding euthanasia. Physical plant. The committee identifies design and construction issues, providing guidelines for animal-room doors, drainage, noise control, surgery, and other areas. The Guide for the Care and

Use of Laboratory Animals provides a framework for the judgments required in the management of animal facilities--a resource of proven value, now updated and expanded. This revision will be important to researchers, animal care technicians, facilities managers, administrators at research institutions, policymakers involved in research issues, and animal welfare advocates.

Laboratory Animal Medicine James G. Fox 2013-10-02 Laboratory Animal Medicine is a compilation of papers that deals with the diseases and biology of major species of animals used in medical research. The book discusses animal medicine, experimental methods and techniques, design and management of animal facilities, and legislation on laboratory animals. Several papers discuss the biology and diseases of mice, hamsters, guinea pigs, and rabbits. Another paper addresses the dog and cat as laboratory animals, including sourcing of these animals, housing, feeding, and their nutritional needs, as well as breeding and colony management. The book also describes ungulates as laboratory animals, including topics on sourcing, husbandry, preventive medical treatments, and housing facilities. One paper addresses primates as test animals, covering the biology and diseases of old world primates, Cebidae, and ferrets. Some papers pertain to the treatment, diseases, and needed facilities for birds, amphibians, and fish. Other papers then deal with techniques of experimentation, anesthesia, euthanasia, and some factors (spontaneous diseases) that complicate animal research. The text can prove helpful for scientists, clinical assistants, and researchers whose work involves laboratory animals.

Laboratory Hamsters G. L. Van Hoosier, Jr. 1987-10-14 Laboratory Hamsters

Respiratory System Thomas C. Jones 2012-12-06 Approximately ten years have elapsed since the second volume of the International Life Sciences Institute (ILSI) Monographs on Pathology of Laboratory Animals, Respiratory System, was first completed. New in formation of interest to pathologists has developed at a rather remarkable pace during these years. Exceptional progress has been made in the routine identification of enzymes and cell products in respiratory cells. A better understanding has developed on the functions of cells of the respiratory tract and of the mechanisms involved in cell metabolism, particularly those involving toxins and carcinogens. Clear concepts have developed concerning the significance of pathologic lesions, particularly in the upper respiratory tract and their relation to human health and risk assessment. Standardized nomenclature has developed significantly during the 10-year period since the first edition and is being utilized on an international basis. This has resulted in significant improvement in communication of pathologic data to regulatory agencies and in scientific publications worldwide. This monograph series and others sponsored by ILSI have had significant effects on these improved communications and the international acceptance of standardized

nomenclature. In this second edition, new formats have been used where more appropriate for the subjects to be covered.

Pathology of Bladder Cancer (1983) Bryan T George 2017-11-22 Present classification schemes of bladder neoplasms are based on structural analyses of histologic material, primarily at the light microscopic level. Attempts to identify histologic variables of certain bladder lesions as biologic precursors of malignancy are in progress. Efforts to relate functional attributes of altered bladder tissues to preneoplastic and neoplastic structural changes are in active development. These advances do require a common recognition and communication of histologic patterns that are used as standard benchmarks. This volume is offered to present in detail description of histologic characteristics of bladder cancer in humans and animals. Areas of recent research advances that may extend our knowledge of the pathobiology of bladder cancer are emphasized. Observations derived from experimental animals are related to the pathogenesis of bladder cancer in humans. This book is intended for pathologists, urologists, oncologists, radiation therapists, epidemiologists, environmental scientists, toxicologists, public health scientists, and regulatory officials.

Growth Control During Cell Aging Eugenia Wang 2020-08-12 The purpose of this book is to provide information on senescent cells and why they are prevented from multiplying via cell division. It includes main sections on the nature of Go/1 transition, factors promoting the cell cycle traverse and avoiding the Go/1 arrest, and negative factors arresting the cell cycle traverse and promoting the stay in the Go/1 stage. Filled with illustrations and explanations, it collectively presents the mechanisms that control the cellular aging process. This reference is a must for anyone with special interests in the biological community, and specifically the field of gerontology.

Research Grants Index National Institutes of Health (U.S.). Division of Research Grants 1972

Ferrets, Rabbits and Rodents - E-Book Katherine Quesenberry 2020-04-24 Learn to treat a wide variety of small mammals and pocket pets with Ferrets, Rabbits, and Rodents: Clinical Medicine and Surgery, 4th Edition. Covering the conditions most often seen in veterinary practice, this highly readable and easy-to-navigate text covers preventative medicine along with disease management, ophthalmology, dentistry, and zoonosis. More than 700 full-color photographs and illustrations highlight radiographic interpretation as well as diagnostic, surgical, and therapeutic techniques. This fourth edition also features new coverage of degus (large rodent species); new coverage of prairie dogs; and expanded coverage of surgical procedures, physical therapy rehabilitation and alternative medicine for rabbits, neoplasia in rabbits, and zoonotic disease. With expert contributors from around the globe, Ferrets, Rabbits, and Rodents is the authoritative, single point of reference for small mammal care that is hard to find elsewhere. Logical organization lays out sections by

different animals and organizes parts within chapters by body system — making it quick and easy to access important information. Drug formulary provides dosage instructions for a wealth of species including ferrets, rabbits, guinea pigs, chinchillas, hamsters, rats/mice, prairie dogs, hedgehogs, and sugar gliders. More than 700 photographs and illustrations highlight key concepts such as radiographic interpretation and the main points of diagnostic, surgical, and therapeutic techniques. Chapter on ophthalmology provides an area of study that is difficult to find for ferrets, rabbits, rodents, and other small mammals. Chapter outlines offer an at-a-glance overview of the chapter contents at the beginning of the chapter. Access to Expert Consult site provides an excellent comprehensive reference and a fully searchable eBook. NEW! Coverage of surgical procedures has been further expanded in this edition. Surgical procedures are presented in a separate section and shown step by step through color photographs and radiographs, accompanied by line drawings. NEW! Additional information on physical therapy rehabilitation and alternative medicine for rabbits includes chiropractic care and acupuncture. NEW! Expanded content on neoplasia in rabbits incorporates lymphoreticular disorders, thymoma, and other neoplastic diseases of rabbits. NEW! All new chapter on prairie dogs has been added. NEW! All new chapter on degus (large rodent species) has been added. UPDATED! Chapter on zoonotic disease has been updated to further cover specific zoonotic diseases in addition to addressing the increased potential for disease transmission from animals to humans. NEW! Global author perspective incorporates the expertise of authors practicing outside of North America. UPDATED! Photographs show the diseases and disorders that are more commonly seen in practice.