



ADVANCES IN  
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Volume 480

# [DOC] Biology Of The Mammary Gland (Advances In Experimental Medicine And Biology, 480)

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**Biology of the Mammary Gland**-John A. Mol 2006-04-11 Proceedings of the European Cooperation in the Field of Scientific and Technical Research (COST 825) Symposium on Mammary Gland Biology, held September 16-18, 1999, in Tours, France. It is difficult to overstate the evolutionary and functional significance of mammary tissue in biology. Substantial progress has been made by researchers in various disciplines, particularly over the last fifteen years, towards realizing the potential of this tissue to yield powerful experimental models for morphogenesis and tissue development; for cellular differentiation; for the biosynthesis and secretion of proteins, lipids, small molecules and inorganic salts; and for the coordination and regulation of these processes. More recently, the possibility of exploiting the secretory epithelial cells of mammary tissue as `cell factories' has become a reality and the recombinant production by lactating animals of an increasing number of proteins, valuable both in the pharmaceutical and `nutraceutical' fields, is in progress or under development. Also in this sphere of agricultural production, genetic as well as nutritional technologies are under investigation and exploitation to optimize milk composition for various end-uses - for instance in food process and manufacture. The possibilities of deriving health benefit from the bioactive properties of some of the minor constituents of milk are emerging to counter the highly-publicized negative health impact of excessive consumption of saturated animal fats. In human nutrition and medicine, the mammary gland is both a source of nutrition to the neonate and a potential health threat to the adult female - breast cancer remains the major single cause of female mortality in most developed countries. This volume provides a unique glimpse into our understanding, at the cutting edge of a variety of disciplines, of this versatile and extraordinary tissue, at the birth of the twenty-first century.

**The Mammary Gland as an Experimental Model**-Mina Bissell 2011 Studies of mammary gland biology are critically important given the prevalence of breast cancer in the population. There are many other reasons to study this organ, however. It represents an excellent model system for research into developmental mechanisms, gene regulation, tissue organization, hormonal action, secretion, and stem cell biology, revealing general principles that can be extended to other organs and tissues. This book provides valuable lessons for all cell, developmental, and cancer biologists.

**Mammary Glands**-Edmund B. Rucker 2014-01-01 This book is a compilation of manuscripts that encompass a breadth of information from different species including rodents, dogs, cows, goats, and sheep. Normal developmental processes are covered and anatomical features are discussed, as well as the impact and significance of environmental chemicals and epigenetics on the mammary gland. In terms of disease states, cancer and mastitis are the most impactful in the fields of human medicine and livestock management, respectively, in the context of mammary gland biology. Therefore, this book presents in depth analyses of these diseases over several chapters and different model systems. Rodent and canine cancer models are discussed, which are very relevant in understanding the roles that genes and the environment play in human breast cancer. In the livestock industry, mastitis in the dairy sector has a deep economic impact globally, and results in over a billion dollar loss annually. Several chapters are devoted towards this disease in dairy cattle, sheep and goats, with an underlying theme of generating newer detection strategies to detect infections at an earlier stage. An up-to-date description of the most important signaling pathways and mechanisms that impact both development and disease are included. A gamut of sub-disciplines are found throughout the book that covers the main aspects of anatomy, physiology, cell biology, genetics, and molecular biology in both development and diseases of the mammary gland.

**Methods in Mammary Gland Biology and Breast Cancer Research**-Margot M. Ip 2000-12-31 This book is a bench manual that provides in one volume all theimportant and unique technologies necessary to studies of mammarygland biology and breast cancer. The chapters are written by expertsin each area with an emphasis on nitty-gritty details that are keypoints for the successful use of a method. Sections include "in""vivo" model systems, special techniques for "in vivo"studies, "in vitro" model systems, and molecular analysis and genetransfer techniques.

**Lactation and the Mammary Gland**-R. Michael Akers 2016-02-10 Michael Akers provides the basics for understanding mammary development and lactation and conveys the critical regulatory events in lactation. This text will prove to be an invaluable overview of mamorary development and lactation for undergraduates and graduates studying lactation, new researchers, and as a review for established scientists. Additionally, the book will be an important resource for professionals in the animal and dairy industry and for those in other scientific disciplines such as food chemistry, cell biology, and endocrinology whose work is closely tied to mammary gland development and function. Lactation and the Mammary Gland covers growth and development of the mammary gland including comparisons between species. It imparts and emphasizes the critical nature of mammary growth and the onset of lactation at the time of parturition. Special emphasis is given to the endocrine and growth factor regulation of both mammogenesis and lactogenesis. A thorough discussion of the role of growth hormone in development and maintenance of lactation or galactopoiesis adds to this book's value as a text and reference. The author reviews the presence of hormones, growth factors, and other bioactive compounds in milk and mammary secretions as well as the potential for use of the mammary gland as a bioreactor in the pharmaceutical industry. A description of the nutritional and management factors in milk production round out the book's comprehensive coverage.

**Protecting Infants through Human Milk**-Larry K. Pickering 2013-06-29 Protecting Infants through Human Milk: Advancing the Scientific Evidence provides a forum in which basic scientists, clinicians, epidemiologists, and policy makers exchange the latest findings regarding the effects of human milk and breastfeeding on infant and maternal health, thereby fostering new and promising collaborations. This volume also integrates data from animal and in vitro laboratory studies with clinical and population studies to examine human milk production and composition, the mechanisms of infant protection and/or risk from human milk feeding, and proposed interventions related to infant feeding practices. Additionally, it stimulates critical evaluation of, and advances in, the scientific evidence base and research methods, and identifies the research priorities in various areas.

**Stromal Cells**-Mani T. Valarmathi 2019-01-23 Stromal cells are connective tissue cells of any organ, and they support the function of the parenchymal cells of that particular organ. Stromal/stromal stem cells are fundamentally a heterogeneous population of cells with contradictory differentiation potential depending upon their environmental niche. Stromal cell biology is not only intriguing, but equally stromal cell ontogeny in vivo remains challenging. In recent years there has been substantial advances in our understanding of stromal cell biology, especially stromal cell isolation, characterization, differentiation, and interactions in physiological (epithelial-stromal interactions) as well as pathophysiological (stromal-cancer interactions) contexts. In addition, stromal cells are also utilized more and more as a therapeutic tool not only in the field of gene therapy but also in the translational field of tissue engineering and regenerative medicine. Therefore, the goal of this book is to consolidate the recent advances in the area of stromal/stromal stem cell biology covering a broad range of interrelated topics in a timely fashion and to disseminate that knowledge in a lucid way to a greater scientific audience. This book will prove highly useful for students, researchers, and clinicians in stem cell biology, developmental biology, cancer biology, pathology, oncology, as well as tissue engineering and regenerative medicine. This quick reference will benefit anyone

desiring a thorough overview of stromal cell structure, function, and its therapeutic implications.

**Hormone Action**-Bert W. O'Malley 1974

**Designing Foods**-National Research Council 1988-02-01 This lively book examines recent trends in animal product consumption and diet; reviews industry efforts, policies, and programs aimed at improving the nutritional attributes of animal products; and offers suggestions for further research. In addition, the volume reviews dietary and health recommendations from major health organizations and notes specific target levels for nutrients.

**Breast Cancer: Cellular and Molecular Biology**-Marc E. Lippman 1988-08-31 Where do you begin to look for a recent, authoritative article on the diagnosis or management of particular malignancy? The few general oncology text books are generally out of date. Single papers in specialized journals are informative but seldom comprehensive; these are more often preliminary reports on a very limited number of patients. Certain general journals fre quently publish good in-depth reviews of cancer topics, and published sym posium lectures are often the best overviews available. Unfortunately, these reviews and supplements appear sporadically, and the reader can never be sure when a topic of special interest will be covered. Cancer Treatment and Research is a series of authoritative volumes which aim to meet this need. It is an attempt to establish a critical mass of oncology literature covering virtually all oncology topics, revised frequently to keep the coverage up to date, easily available on a single library shelf or by a single personal subscription. We have approached the problem in the following fashion. First, by divid ing the oncology literature into specific subdivisions such as lung cancer, genitourinary cancer, pediatric oncology, etc. Second, by asking eminent authorities in each of these areas to edit a volume on the specific topic on an annual or biannual basis. Each topic and tumor type is covered in a volume appearing frequently and predictably, discussing current diagnosis, staging, markers, all forms of treatment modalities, basic biology, and more.

**Milk: the Mammary Gland and Its Secretion**-S. K. Kon 2016-04-20 Milk: the Mammary Gland and Its Secretion, Volume II, provides an overview of the state of knowledge in lactation. The book opens with a study on the metabolic cost of lactating, and the role of diet in sustaining lactation. This is followed by separate chapters on the nutrition of the lactating ruminant, mare, and sow, with special emphasis to the nutritional requirements; and the three major metabolic diseases of cattle, and particularly lactating cows: parturient paresis (milk fever), hypomagnesaemia (grass tetany), and ketosis. Subsequent chapters deal with the nutritive needs for lactation in the rat; the chemical and nutritional characteristics of the milk; and breast milk and cow's milk as food for infants. The final chapters discuss the problems of the post-natal phase of growth and development of the young, and the effects of the amount and composition of the milk supply; and the immunological aspects of colostrum.

**Integument and Mammary Glands**-Thomas C. Jones 2012-12-06 The International Life Sciences Institute (ILSI) was estab lished in 1978 to stimulate and support scientific research and educational programs related to nutrition, toxicology, and food safety, and to encourage cooperation in these programs among scientists in universities, industry, and government agencies to assist in the resolution of health and safety issues. To supplement and enhance these efforts, ILSI has made a major commitment to supporting programs to harmon ize toxicologic testing, to advance a more uniform inter pretation of bioassay results worldwide, to promote a common understanding of lesion classifications, and to encourage wide discussion of these topics among scien tists. The Monographs on the Pathology of Laboratory Ani mals are designed to facilitate communication among those involved in the safety testing of foods, drugs, and chemicals. The complete set will cover all organ systems and is intended for use by pathologists, toxicologists, and others concerned with evaluating toxicity and carcinogen icity studies. The international nature of the project - as reflected in the composition of the editorial board and the diversity of the authors and editors - strengthens our ex pectations that understanding and cooperation will be im proved worldwide through the series. Alex Malaspina President International Life Sciences Institute Preface This book, on the integumentary system, is the seventh volume of a set prepared under the sponsorship of the International Life Sciences Institute (ILSI).

**Oxford Textbook of Cancer Biology**-Francesco Pezzella 2019-05-02 The study of the biology of tumours has grown to become markedly interdisciplinary, involving chemists, statisticians, epidemiologists, mathematicians, bioinformaticians, and computer scientists alongside biologists, geneticists, and clinicians. The Oxford Textbook of Cancer Biology brings together the most up-to-date developments from different branches of research into one coherent volume, providing a comprehensive and current account of this rapidly evolving field. Structured in eight sections, the book starts with a review of the development and biology of multi-cellular organisms, how they maintain a healthy homeostasis in an individual, and a description of the molecular basis of cancer development. The book then illustrates, as once cells become neoplastic, their signalling network is altered and pathological behaviour follows. It explores the changes that cancer cells can induce in nearby normal tissue, the new relationship established between them and the stroma, and the interaction between the immune system and tumour growth. The authors illustrate the contribution provided by high throughput techniques to map cancer at different levels, from genomic sequencing to cellular metabolic functions, and how information technology, with its vast amounts of data, is integrated with traditional cell biology to provide a global view of the disease. The effect of the different types of treatments on the biology of the neoplastic cells are explored to understand on the one side, why some treatments succeed, and on the other, how they can affect the biology of resistant and recurrent disease. The book concludes by summarizing what we know to date about cancer, and in what direction our understanding of cancer is moving. Edited by leading authorities in the field with an international team of contributors, this book is an essential resource for scholars and professionals working in the wide variety of sub-disciplines that make up today's cancer research and treatment community. It is written not only for consultation, but also for easy cover-to-cover reading.

**The Mammary Gland**-Margaret C. Neville 2013-10-09

**The Mammary Gland / Human Lactation / Milk Synthesis**-Bruce L. Larson 2013-10-22 Lactation: A Comprehensive Treatise, Volume IV, The Mammary Gland/Human Lactation/Milk Synthesis, forms the fourth in a series. When the first three volumes were published in 1974, publication of future volumes was not contemplated. However, the gratifying acceptance by the scientific community and the continuation of rapid advances in lactation, have provided the impetus for the continuation of the series. The present volume is concerned with general aspects of the mammary gland, human lactation, and mechanisms of milk synthesis. The volume is divided into three main parts. Part I covers some aspects of the mammary gland and lactation not discussed in the first three volumes and expands on others. Topics discussed include the development of the mammary apparatus and neuroendocrine control of lactation. Part II is devoted to more specific consideration of human lactation as a whole. It includes studies on breast feeding and the breast cancer process. Part III on milk synthesis deals with the mechanisms of milk synthesis;

enzymology and control of lactose biosynthesis; molecular aspects of milk protein biosynthesis; and ion and water transport in the mammary gland.

**Biology of Lactation**-Jack Martinet 1999-01-01 Scientific, medical, technical, and naturistic.

**On the Anatomy of the Breast**-Astley Paston Cooper 1840

**Lactation and the Mammary Gland**-R. Michael Akers 2002-07-02 Michael Akers provides the basics for understanding mammary development and lactation and conveys the critical regulatory events in lactation. This text will prove to be an invaluable overview of mammary development and lactation for undergraduates and graduates studying lactation, new researchers, and as a review for established scientists. Additionally, the book will be an important resource for professionals in the animal and dairy industry and for those in other scientific disciplines such as food chemistry, cell biology, and endocrinology whose work is closely tied to mammary gland development and function. Lactation and the Mammary Gland covers growth and development of the mammary gland including comparisons between species. It imparts and emphasizes the critical nature of mammary growth and the onset of lactation at the time of parturition. Special emphasis is given to the endocrine and growth factor regulation of both mammatogenesis and lactogenesis. A thorough discussion of the role of growth hormone in development and maintenance of lactation or galactopoiesis adds to this book's value as a text and reference. The author reviews the presence of hormones, growth factors, and other bioactive compounds in milk and mammary secretions as well as the potential for use of the mammary gland as a bioreactor in the pharmaceutical industry. A description of the nutritional and management factors in milk production round out the book's comprehensive coverage.

**Lactogenesis**-Monica Reynolds 2016-11-11 Proceedings of a symposium, satellite to the 24th International Congress of Physiological Sciences, University of Pennsylvania.

**Intercellular Signalling in the Mammary Gland**-C.H. Knight 2012-12-06 All being done, we went to Mrs Shipmans, who is a great butter-woman; and I did see there the most of milke and cream, and the cleanest, that I ever saw in my life (29 May 1661). Among others, Sir Wm. Petty did tell me that in good earnest, he hath in his will left such parts of his estate to him that could invent such and such things -as among others, that could discover truly the way of milk coming into the breasts of a woman ... (22 March 1665). My wife tells me that she hears that my poor aunt James hath had her breast cut off here in tow- her breast having long been out of order (5 May 1665). From the Diary of Samuel Pepys, published as The Shorter Pepys (edited by R. Latham), Penguin Books (1987) The long-standing ultimate importance of research on the mammary gland is illustrated by the importance attached to cows' milk for human consumption, to human lactation and to breast cancer by Samuel Pepys and his contemporaries in the middle of the 17th century. Research has tended to develop in isolation in these three areas of continuing contemporary importance largely because in most countries, the underlying science of agricultural productivity is funded separately from the underlying science of human health and welfare.

**Management of Breast Diseases**-Ismail Jatoi 2010-02-11 In 2002, Lippincott published the Manual of Breast Diseases, edited by Professor Ismail Jatoi. The current book, Management of Breast Diseases, is an adaptation of that manual, with Professor Manfred Kaufmann of the Goethe-University of Frankfurt serving as co-editor. Most of the chapters from the original manual have been either extensively revised or discarded, and several new chapters added. This text contains more material than the original manual, but it is still intended as a basic guide for the wide spectrum of clinicians (surgeons, gynecologists, oncologists, radiation oncologists, internists, general practitioners) who treat breast diseases, both benign and malignant. To compile this text, we assembled experts from throughout the world. Thus, this text provides not only a broad overview of breast diseases, but also highlights different perspectives from different parts of the world. Yet, it is worth noting that the management of breast cancer is now largely predicated on evidence-based medicine. Several large, randomized prospective trials have demonstrated the efficacy of breast cancer screening and chemoprevention. Other large trials have addressed the impact of systemic therapy, radiotherapy, and variations in local therapy on breast cancer mortality. Many of these landmark trials are discussed in this text, and they clearly have had a beneficial effect. Indeed, since about 1990, breast cancer mortality rates have declined substantially in most industrialized countries, and this trend is expected to continue in the years ahead.

**Goat Science**-Sándor Kukovics 2018-06-20 Goat science covers quite a wide range and varieties of topics, from genetics and breeding, via nutrition, production systems, reproduction, milk and meat production, animal health and parasitism, etc., up to the effects of goat products on human health. In this book, several parts of them are presented within 18 different chapters. Molecular genetics and genetic improvement of goats are the new approaches of goat development. Several factors affect the passage rate of digesta in goats, but for diet properties, goats are similar to other ruminants. Iodine deficiency in goats could be dangerous. Assisted reproduction techniques have similar importance in goats like in other ruminants. Milk and meat production traits of goats are almost equally important and have significant positive impacts on human health. Many factors affect the health of goats, heat stress being of increasing importance. Production systems could modify all of the abovementioned characteristics of goats.

**Dairy Processing and Quality Assurance**-Ramesh C. Chandan 2015-10-15 Dairy Processing and Quality Assurance, Second Edition describes the processing and manufacturing stages of market milk and major dairy products, from the receipt of raw materials to the packaging of the products, including the quality assurance aspects. The book begins with an overview of the dairy industry, dairy production and consumption trends. Next are discussions related to chemical, physical and functional properties of milk; microbiological considerations involved in milk processing; regulatory compliance; transportation to processing plants; and the ingredients used in manufacture of dairy products. The main section of the book is dedicated to processing and production of fluid milk products; cultured milk including yogurt; butter and spreads; cheese; evaporated and condensed milk; dry milks; whey and whey products; ice cream and frozen desserts; chilled dairy desserts; nutrition and health; sensory evaluation; new product development strategies; packaging systems; non-thermal preservation technologies; safety and quality management systems; and dairy laboratory analytical techniques. This fully revised and updated edition highlights the developments which have taken place in the dairy industry since 2008. The book notably includes: New regulatory developments The latest market trends New processing developments, particularly with regard to yogurt and cheese products Functional aspects of probiotics, prebiotics and synbiotics A new chapter on the sensory evaluation of dairy products Intended for professionals in the dairy industry, Dairy Processing and Quality Assurance, Second Edition, will also appeal to researchers, educators and students of dairy science for its contemporary information and experience-based applications.

**Diseases of Swine**-Jeffrey J. Zimmerman 2019-03-25 Provides a fully revised Eleventh Edition of the definitive reference to swine health and disease Diseases of Swine has been the definitive reference on swine health and disease for over 60 years. This new edition has been completely revised to include the latest information, developments, and research in the field. Now with full color images throughout, this comprehensive and authoritative resource has been redesigned for improved consistency and readability, with a reorganized format for more intuitive access to information. Diseases of Swine covers a wide range of essential topics on swine production, health, and management, with contributions from more than 100 of the foremost international experts in the field. This revised edition makes the information easy to find and includes expanded information on welfare and behavior. A key reference for anyone involved in the swine industry, Diseases of Swine, Eleventh Edition: Presents a thorough revision to the gold-standard reference on pig health and disease Features full color images throughout the book Includes information on the most current advances in the field Provides comprehensive information on swine welfare and behavior Offers a reorganized format to make the information more accessible Written for veterinarians, academicians, students, and individuals and agencies responsible for swine health and public health, Diseases of Swine, Eleventh Edition is an essential guide to swine health.

**The Mammary Gland**-Margaret C. Neville 1987-11-30

**Histopathology of Preclinical Toxicity Studies**-Peter Greaves 1990 Histopathological assessment of tissue sections is an important component of many preclinical studies which are conducted to support the safety and clinical development of novel therapeutic agents for use in the treatment of human diseases. The drug discovery process, aided by modern biotechnology, is now capable of generating highly potent, pharmacologically active agents which can give rise to quite unusual constellations of tissue pathology. The complexity and the number of histopathological findings in individual studies indicate the need for lucidity in descriptions and conclusions. In the light of these and other difficulties, this text is aimed towards bringing together into one volume a description of histopathological changes which relate to toxicity testing of therapeutic agents in the usual test species: rat, mouse, dog and non-human primate. This book is an excellent starting point for the analysis of drug-induced findings in toxicity studies.

**Current Topics in Lactation**- 19??

**Milk, Mucosal Immunity and the Microbiome**-Pearay L. Ogra 2020 "This publication covers the 94th Nestle Nutritional Institute Workshop, which was designed to provide a comprehensive overview on the latest human milk research and its role in modulating mucosal immunity, the microbiome, and its impact on the neonate. This publication should provide scientific support to anyone seeking a deeper understanding of human milk and its immunological properties, and enlarge the knowledge of those who specialize in human milk research"--

**Second Harmonic Generation Imaging**-Francesco S. Pavone 2016-04-19 Second-harmonic generation (SHG) microscopy has shown great promise for imaging live cells and tissues, with applications in basic science, medical research, and tissue engineering. Second Harmonic Generation Imaging offers a complete guide to this optical modality, from basic principles, instrumentation, methods, and image analysis to biomedical applications. The book features contributions by experts in second-harmonic imaging, including many pioneering researchers in the field. Written for researchers at all levels, it takes an in-depth look at the current state of the art and possibilities of SHG microscopy. Organized into three sections, the book: Provides an introduction to the physics of the process, step-by-step instructions on how to build an SHG microscope, and comparisons with related imaging techniques Gives an overview of the capabilities of SHG microscopy for imaging tissues and cells—including cell membranes, muscle, collagen in tissues, and microtubules in live cells—by summarizing experimental and analytical methods Highlights representative biomedical and medical applications in imaging cancer, fibroses, autoimmune diseases, connective tissue disorders, eye pathologies, and cardiovascular disease Historically, clinical imaging at the cellular and tissue level has been performed by pathologists on ex vivo biopsies removed by the surgeon. While histology remains the "gold standard" for pathologists, its interpretation remains highly subjective. Much of SHG research has focused on developing more quantitative, objective metrics. A tutorial for newcomers and an up-to-date review for experts, this book explores how SHG may be used to more precisely image a wide range of pathological conditions and diseases.

**Withrow and MacEwen's Small Animal Clinical Oncology - E-Book**-Stephen J. Withrow 2013-08-07 With a unique focus on the most effective interventional techniques, Withrow & MacEwen's Small Animal Clinical Oncology, 5th Edition tells the full story of cancer in dogs and cats — what it is, how to diagnose it, and how to treat many of the most common cancers encountered in clinical practice. Nearly 500 color photographs, diagrams, x-rays, and gross views depict the clinical manifestations of various cancers. This edition covers the latest advances in clinical oncology, including chemotherapy, surgical oncology, and diagnostic techniques. With contributions from 65 veterinary oncology experts, this authoritative reference is a must-have for current, evidence-based therapeutic strategies on canine and feline oncology. "I really love this book. If you are interested in veterinary oncology, have a flick through this book online or at a conference when you get the chance. I hope that you agree with me that this is the definitive oncology reference source for the early 21st century and that you feel compelled to buy it. Your patients will thank you for it." Reviewed by: Gerry Polton MA VetMB MSc(Clin Onc) DipECVIM-CA(Onc) MRCVS, UK Date: July 2014 Cutting-edge information on the complications of cancer, pain management, and the latest treatment modalities prepares you to diagnose and treat pets with cancer rather than refer cases to a specialist. A consistent format for chapters on body system tumors includes coverage of incidence and risk factors, pathology, natural behavior of tumors, history and clinical signs, diagnostic techniques and workup, treatment options, and prognosis for specific malignancies. A systems approach to the diagnosis and management of cancer facilitates access to information about the many malignancies affecting small animal patients. Nearly 500 color images provide accurate depictions of specific diseases and procedures. Helpful drug formularies provide quick access to information on indications, toxicities, and recommended dosages for chemotherapeutic and analgesic drugs used in cancer treatment. Expert contributors provide in-depth coverage of the most current information in his or her respective specialty in veterinary oncology. Chemotherapy protocols are included when case studies prove clinical efficacy. Discussion of compassion and supportive care for the management of pain, nutritional needs, and grief includes methods for handling the pet's pain and nutritional complications as well as the pet owner's grief when treatment is not successful. Thoroughly UPDATED chapters cover the most recent changes in the clinical management of melanoma, mast cell tumors, tumors of the skeletal system, tumors of the endocrine system, tumors of the mammary gland, urinary cancers, nervous system cancers, lymphoma, and histiocytic diseases. NEW Clinical Trials and Developmental Therapeutics chapter discusses the various phases of clinical trials as well as current challenges and opportunities in oncology drug development. NEW! A focus on the best recommended treatment options highlights therapeutic strategies that have been vetted by veterinary oncology experts. NEW co-author Dr. Rodney L. Page adds his valuable perspective, expertise, and research experience.

**Vertebrate Endocrinology**-David O. Norris 2013-05-04 Vertebrate Endocrinology represents more than just a treatment of the endocrine system-it integrates hormones with other chemical bioregulatory agents not classically included with the endocrine system. It provides a complete overview of the endocrine system of vertebrates by first emphasizing the mammalian system as the basis of most terminology and understanding of endocrine mechanisms and then applies that to non-mammals. The serious reader will gain both an understanding of the intricate relationships among all of the body systems and their regulation by hormones and other bioregulators, but also a sense of their development through evolutionary time as well as the roles of hormones at different stages of an animal's life cycle. Includes new full color format includes over 450 full color, completely redrawn image Features a companion web site hosting all images from the book as PPT slides and .jpeg files Presents completely updated and revitalized content with new chapters, such as Endocrine Disruptors and Behavioral Endocrinology Offers new clinical correlation vignettes throughout

**A Practical Treatise on Tumors of the Mammary Gland**-Samuel Weissell Gross 1880

**Lactation**-Margaret Neville 2013-11-11 This book had its genesis in the frustrations of the editors in locating authoritative, up-to-date material for an interdisciplinary graduate course in mammary gland biology, lactation, and breast-feeding. As we turned to the original literature several reasons for the dearth of usable material became clear: (1) In the areas of mammary gland biology and physiology, particularly as they relate to the human, reviews simply have not kept up with current research, which has in the last two decades provided tremendous insight into the mechanisms of milk secretion and its control. (2) The lack of interest in human milk as infant food inhibited researchers until very recently from investigating human lactation. (3) Much of the relevant clinical information remains anecdotal with little scientific basis. In this book we have tried to present the fundamentals of mammary gland physiology at the organismic and cellular levels in a form readily understood by physicians, scientists, and other professionals. This basic information is accompanied by authoritative reviews of the nutritional and immunological properties of human milk and by clinically relevant chapters designed to help health care professionals deal with the medical problems of the breast-feeding mother and her infant. We have strived in these chapters for up-to-date, authoritative, but readable accounts. In so far as possible we have avoided areas where much of our understanding rests on speculation. In the clinical domain this was not always possible because of a lack of solid, scientific information about breast-feeding.

**Hormonal Control of Lactation**-A. T. Cowie 2012-12-06 Research on the hormonal control of lactation - the subject of this monograph - has long been the major interest of this laboratory. Studies were initiated in the mid 1930s by the late Professor S. I. Folley, FRS, who directed the work with immense enthusiasm and devotion until his untimely death in 1970. This fruitful area of basic and applied research has, in recent years, attracted widespread attention; there have been many exciting events and developments with a dramatic increase in the number of publications. These events are diverse and include the identification, isolation and sequencing of human prolactin; the identification and isolation of placental lactogens in several ruminant species with recognition of their importance in mammary growth and differentiation; the introduction of highly sensitive bioassay, radioimmuno- and radioreceptor-assay techniques for mammatrophic hormones; the growing clinical appreciation of the immunological and nutritional importance of colostrum and milk to the newborn; the intensification of studies on normal mammatogenesis to establish a sound basis for studies on mammary cancer; and the exploitation of the mammary gland, with its characteristic differentiation patterns and multiple synthetic abilities, as a valuable tissue for the investigation of basic mechanisms involved in the synthesis under hormonal control of enzymes and secretory proteins; and for the study of hormone - receptor interactions.

**Equine Reproductive Procedures**-John Dascanio 2014-06-23 Equine Reproductive Procedures is a user-friendly guide to reproductive management, diagnostic techniques, and therapeutic techniques on stallions, mares, and foals. Offering detailed descriptions of 161 procedures ranging from common to highly specialized, the book gives step-by-step instructions with interpretative information, as well as useful equipment lists and references for further reading. Presented in a highly portable spiral-bound format, Equine Reproductive Procedures is a practical resource for daily use in equine practice. Divided into sections on the non-pregnant mare, the pregnant mare, the postpartum mare, the stallion, and the newborn foal, the book is well-illustrated throughout with clinical photographs demonstrating procedures. Equine Reproductive Procedures provides practical guidance for performing basic and advanced techniques associated with the medical management of horses.

**Computational and Statistical Approaches to Genomics**-Wei Zhang 2007-12-26 The second edition of this book adds eight new contributors to reflect a modern cutting edge approach to genomics. It contains the newest research results on genomic analysis and modeling using state-of-the-art methods from engineering, statistics, and genomics. These tools and models are then applied to real biological and clinical problems. The book's original seventeen chapters are also updated to provide new initiatives and directions.

**Mammography Techniques and Review**-Fabiano Fernandes 2015-07-01 Mammography remains at the backbone of medical tools to examine the human breast. The early detection of breast cancer typically uses adjunct tests to mammogram such as ultrasound, positron emission mammography, electrical impedance, Computer-

aided detection systems and others. In the present digital era it is even more important to use the best new techniques and systems available to improve the correct diagnosis and to prevent mortality from breast cancer. The first part of this book deals with the electrical impedance mammographic scheme, ultrasound axillary imaging, positron emission mammography and digital mammogram enhancement. A detailed consideration of CBR CAD System and the availability of mammographs in Brazil forms the second part of this book. With the up-to-date papers from world experts, this book will be invaluable to anyone who studies the field of mammography.

**The Motor Apparatus of the Mammary Gland**-Maksim Gugovich Zaks 1962

**Veterinary Cytology**-Leslie C. Sharkey 2020-08-11 This book offers a state-of-the-art, evidence-based reference to all aspects of veterinary cytology. Truly multidisciplinary in its approach, chapters are written by experts in fields ranging from clinical pathology to internal medicine, surgery, ophthalmology, and dermatology, drawing the various specialties together to create a comprehensive picture of cytology's role in diagnosis and treatment of animal disease. Firmly grounded in the primary literature, the book focuses on companion animals, with special chapters for species with fewer publications. Chapters are logically organized by body system, with additional chapters on tumors of particular import and diagnostic decision making. The first two sections of Veterinary Cytology focus on cytology techniques, quality control, and special laboratory techniques. Subsequent sections are organ/tissue-based and reflect what is known about the canine, feline, and equine species. This is followed by chapters on non-traditional species, including exotic companion mammals, rabbits, cattle, camelids, non-human primates, reptiles and birds, amphibians, fish, invertebrates, and sheep and goats. The last section highlights some unique features of the applications of cytology in industry settings. Provides a gold-standard reference to data-driven information about cytologic analysis in companion animal species Brings together authors from a wide range of specialties to present a thorough survey of cytology's use in veterinary medicine Offers broader species coverage and greater depth than any cytology reference currently available Veterinary Cytology is an essential resource for clinical and anatomic pathologists and any specialist in areas using cytology, including veterinary oncologists, criticalists, surgeons, ophthalmologists, dermatologists, and internists.

**Milk**-Michael L. Power 2016-10-18 The first book to discuss milk from a comparative and evolutionary perspective, Power and Schulkin's masterpiece reveals the rich biological story of the common thread that connects all mammals.