

Management Of Laboratory Animal Care And Use Programs

For many years, laboratory dogs have served as important animal models for biomedical research that has advanced human health. Conducted at the request of the U.S. Department of Veterans Affairs (VA), this report assesses whether laboratory dogs are or will continue to be necessary for biomedical research related to the VA's mission. The report concludes that using laboratory dogs in research at the VA is scientifically necessary for only a few areas of current biomedical research. The report recommends that the VA adopt an expanded set of criteria for determining when it is scientifically necessary to use laboratory dogs in VA biomedical research; that the VA promote the development and use of alternatives to laboratory dogs; and highlights opportunities for the VA to enhance the welfare of laboratory dogs that are being used in biomedical research areas for which they have been deemed necessary.

Laboratory Animal Welfare provides a comprehensive, up-to-date look into the new science of animal welfare within laboratory research. Animals specifically considered include rodents, cats and dogs, nonhuman primates, agricultural animals, avian animals and aquatic animals. The book examines the impact of experiment design and environment on animal welfare, as well as emergency situations and euthanasia practices. Readers will benefit from a review of regulations and policy guidelines concerning lab animal use, as well as information on assessing animal welfare. With discussions of the history and ethics of animals in research, and a debate on contemporary and international issues, this book is a go-to resource for laboratory animal welfare. Maintaining its user-friendly approach, *The Care and Feeding of an IACUC: The Organization and Management of an Institutional Animal Care and Use Committee, Second Edition* is a handy guide for members of the laboratory animal community looking for a concise, descriptive introduction to what an IACUC is all about and how it operates. The book covers

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

Read Book Management Of Laboratory Animal Care And Use Programs

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.

The IACUC Administrator's Guide to Animal Program Management supports IACUC administrators who assist with developing, managing, and overseeing a program of animal care and animal use. It provides many options and possibilities for specific operational practices (e.g., how to build a well-functioning IACUC, what a functional protocol template looks like) to satisfy regulatory requirements. The material provided is a compilation of several years of Best Practices (BP) meetings among IACUC administrators across the country. The BP meetings included representatives from the NIH/OLAW, AAALAC, and the USDA, whose presence and dialogue assured the BP discussion met or exceeded all regulatory or accreditation minimum standards. BP meeting attendees from private, public, governmental, and academic organizations have helped to shape and develop the information offered herein. It is through the insight of several hundred colleagues—their successes as well as their failures—that the authors have distilled suggestions and considerations for your local animal care and use program. This handbook complements other useful references and manuals regarding programmatic function—it is not intended to replace them. The primary difference you will find is the transparent and open nature of describing processes that have been time tested and proven to help you and your organization satisfy the regulatory requirements.

Laboratory Animals: Regulations and Recommendations for the Care and Use of Animals in Research, Second Edition, is the only publication to offer a global compilation of standards on the care, welfare and use of animals in research. The book provides updated information that will be of great interest to professionals across laboratory animal science and biomedical research. Users will find a broad picture of the regulations required in other areas of the world that will be essential to appropriately manage animal care and use programs. Offers a worldwide view and global compilation of regulations, guidelines and recommendations for laboratory animal research Provides insight into factors that play key roles in the regulatory framework for countries and geographic regions Compares and contrasts regulations in different regions Written in layman's terms to easily understand legislation and regulations

This report follows up on an interim report released in February 2004 that focused on immediate needs in the areas of animal care and management, recordkeeping, and pest control. The report finds that the zoo has made good-faith efforts to correct deficiencies noted in the interim report and has made some noticeable improvements in the past year in zoo operations and animal care. However, problems in areas such as staff training, workplace culture, and strategic planning still need to be addressed. Specifically, the report recommends that the zoo immediately develop and implement animal-care training programs to ensure that people who are directly responsible for the well-being of its animal collection are adequately prepared and competent.

Read Book Management Of Laboratory Animal Care And Use Programs

The report commends a zoo-initiated strategic planning process as a positive step, but recommends it contain a more detailed, comprehensive strategy of how it will meet short-term goals and that it should link plans to upgrade facilities with those to acquire animals. The zoo should also focus on improving communication among keepers, veterinarians, nutritionists, senior managers, and curators.

Ever since its establishment by USDA regulation in the mid-1980s, the Institutional Animal Care and Use Committee (IACUC) has evolved as the premier instrument of animal welfare oversight within research institutions in the United States. As biomedical research continuously grows, the role and impact of the IACUC has increased in scope and complexity. The IACUC Handbook has become "the Bible" for individuals when the time comes for them to serve on their institution's IACUC. It provides a foundation for understanding and implementing the many and varied responsibilities of this committee. This Third Edition comprehensively addresses the significant changes in the pertinent regulatory environment and interpretation of applicable federal laws, regulations, and policies. It provides multiple references and commentary on the new edition of the Guide for the Care and Use of Laboratory Animals, the new AVMA Guidelines for the Euthanasia of Animals: 2013 Edition, and the Office of Laboratory Animal Welfare's Frequently Asked Questions. The Third Edition also features an updated survey of IACUC practices from institutions around the United States, offering wisdom gained from their experience. In addition, it includes a chapter that provides an international perspective on how animal welfare reviews can function in other countries.

The seminal reference on the care of laboratory and captive animals, The UFAW Handbook on the Care and Management of Laboratory and Other Research Animals is a must-have for anyone working in this field. The UFAW Handbook has been the definitive text since 1947. Written for an international audience, it contains contributions from experts from around the world. The book focuses on best practice principles throughout, providing comprehensive coverage, with all chapters being peer reviewed by anonymous referees. As well as addressing the husbandry of laboratory animals, the content is also of great value to zoos and aquaria. Changes for the eighth edition: Revised and updated to reflect developments since publication of the previous edition. New chapters on areas of growing concern, including: the 3Rs; phenotyping; statistics and experimental design; welfare assessment; legislation; training of people caring for lab animals; and euthanasia. All material combined into one volume for ease of reference. This book is published on behalf of UFAW (The Universities Federation for Animal Welfare), with whom we also publish the UFAW/Wiley-Blackwell Animal Welfare Book Series. This major series of books provides an authoritative source of information on worldwide developments, current thinking and best practice in the field of animal welfare science and technology. For details of all of the titles in the series see <http://www.wiley.com/go/ufaw> www.wiley.com/go/ufaw/a.

COST (European Cooperation in the field of Scientific and Technical Research) is an intergovernmental initiative in science and research intended to promote the coordination of nationally funded research in Europe. Four working groups discuss the housing of animals, their environmental needs, refinement of procedures, genetically modified animals, and cost-benefit analysis. Based on the activities of these working groups, this book provides the European best practices for individuals and institutions working with

Read Book Management Of Laboratory Animal Care And Use Programs

laboratory animals. The text also discusses the ethical evaluation of experiments and procedures involving animals. For critical care of laboratory rodents, there is a scarcity of sources for comprehensive, feasible, and response-oriented information on clinical interventions specific to spontaneous and induced models of disease. With the more complex cases that need critical care management, many treatment approaches to veterinary emergencies cannot be applied directly to the laboratory rodent. The first text of its kind devoted to the challenges of critical care management for laboratory rodents, *Critical Care Management for Laboratory Mice and Rats* provides a specialized resource for all veterinary, husbandry, technical, and research professionals who utilize rodent models for biomedical research. The book covers the varied approaches to laboratory rodent patient care, health assessments, characteristics of specific disease models, monitoring and scoring of disease parameters, and humane interventions. Giving primary consideration to preservation of animal health and welfare, the text also considers how best to balance welfare with the achievement of proposed scientific objectives. Organized into five chapters, this full-color book covers the following topics: General Approaches for Critical Care Critical Care Management for Laboratory Mice Critical Care Management for Laboratory Rats Special Considerations for Critical Care Management in Laboratory Rodents Resources and Additional Information The author provides treatment guidelines with the expectation that they will be applied with apt professional judgment, allowing for further modification of clinical recommendations for improved patient-based care and welfare for research animals.

Clinical Laboratory Animal Medicine: An Introduction, Fourth Edition offers a user-friendly guide to the unique anatomy and physiology, care, common diseases, and treatment of small mammals and nonhuman primates. Carefully designed for ease of use, the book includes tip boxes, images, and review questions to aid in comprehension and learning. The Fourth Edition adds new information on transgenic mice, drug dosages, techniques, and environmental enrichment, making the book a comprehensive working manual for the care and maintenance of common laboratory animals. The book includes information on topics ranging from genetics and behavior to husbandry and techniques in mice, rats, gerbils, hamsters, guinea pigs, chinchillas, rabbits, ferrets, and nonhuman primates. A companion website provides editable review questions and answers, instructional PowerPoints, and additional images not found in the book. *Clinical Laboratory Animal Medicine* is an invaluable resource for practicing veterinarians, veterinary students, veterinary technicians, and research scientists.

Praise for the Previous Editions "The author brings in management wisdom from the world outside laboratory animal medicine and veterinary medicine. As a result, there is a rich mixture of the experience of a seasoned professional and the theoretical framework used by schools of management I recommend this book to managers and laboratory animal specialists at any stage of their careers." —Franklin M. Loew, DVM, PhD, DACLAM, JAVMA, Vol. 222, No. 6, 2003 "... This book is a good informational resource for any new manager to the field of laboratory management. The information is presented in a way that will keep your interest and stimulate you to think how it can benefit you and the facility in which you work." —Susan K. Cutter, BS, RVT, RLATG, Purdue University, West Lafayette, Indiana, USA, LAMA Review Written in Jerry Silverman's trademark style, *Managing the Laboratory*

Read Book Management Of Laboratory Animal Care And Use Programs

Animal Facility, Third Edition provides the reader with sound management theory and associated management practices that are easy to read, easy to understand, easy to implement, and pertinent to the daily management and leadership of laboratory animal facilities. Maintaining the practical focus of previous editions, this greatly expanded volume presents the critical knowledge needed to help you make efficient and effective use of the key resources that are used every day by vivarium managers – people, time, money, and information. New to the Third Edition Incorporating the latest developments in management theory and application, the edition contains approximately 100 pages of new and expanded material. This more detailed coverage: Discusses lean management concepts and practices and their application to laboratory animal science Adds information on many essential topics, especially in human resources management in its treatment of negotiations, influence, and performance reviews Provides a large number of revisions and updates to Appendix 2 in its presentation of Per diem calculations Includes an extensive list of references for further study of specialized topics

Laboratory animals are becoming increasingly important for biomedical research. It is said that approximately 70% of biomedical research is associated with the use of experimental animals. Laboratory animal research not only expands our knowledge of science, but also greatly improves human and animal health. The field of laboratory animal science is ever-growing and changing as new experimental techniques are developed and new animal models are created. It is essential to know not only the biological features of each laboratory animal but also how to use and care for them responsibly in order to perform high-quality experiments. Courses in beginning Laboratory Animal Science are starting to be offered in many universities throughout the world. However, a practical introductory textbook that contains state-of-the-art techniques is still lacking. Fundamentals of Laboratory Animal Science provides comprehensive information on the principles and practices of using laboratory animals for biomedical research. Each individual chapter focuses on a key sub-discipline of laboratory animal science: animal welfare and best humane care practices in the laboratory; the quality control of laboratory animals; the anatomy, physiology, and husbandry of commonly used species; the principles of creating and using animal models for studying human diseases; practical techniques used for laboratory animal experiments; experimental design; and animal experimentation management. Knowledge of this broad spectrum of concepts and skills will ensure research goes smoothly while greatly reducing animal pain and distress. Well-illustrated and thoroughly referenced, this book will serve not only as a standard textbook but also as a handy guide for veterinarians, researchers, animal care staff, administrators, and other professionals who are involved in laboratory animal science.

Much has been written about the care of research animals. Yet little guidance has appeared on protecting the health and safety of the people who care for or use these animals. This book, an implementation handbook and companion to Guide For the Care and Use of Laboratory Animals, identifies principles for building a program and discusses the accountability of institutional leaders, managers, and employees for a program's success. It provides a detailed description of risks--physical and chemical hazards, allergens and zoonoses, and hazards from experiments--which will serve as a continuing

Read Book Management Of Laboratory Animal Care And Use Programs

reference for the laboratory. The book offers specific recommendations for controlling risk through administrative procedures, facility design, engineering controls, and periodic evaluations. The volume focuses on the worker, with detailed discussions of work practices, the use of personal protective gear, and the development of an emergency response plan. This handbook will be invaluable to administrators, researchers, and employees in any animal research facility. It will also be of interest to personnel in zoos, animal shelters, and veterinary facilities.

Laboratory Animal Anesthesia looks at recent significant developments in anesthetic practices in laboratory experiments involving animals. It also provides information about basic standards for proper use of anesthesia. In addition, it examines the equipment and different anesthetic agents that are used in performing an experiment on animals. The book also discusses the profound effects of anesthesia on the physiological aspect of the animals' body systems, such as hypothermia and respiratory depression. The book addresses the proper management and care that should be provided for the animals that undergo anesthesia. Furthermore, it covers different anesthetic procedures that should be used on various kinds of small animals intended for laboratory experiments. The main goal of this book is to provide information about the different anesthetic agents used in experiments, and the proper standards to follow when using anesthetics on lab animals.

- New edition provides new information on anesthesia and analgesia, and has an extensively revised and updated bibliography
- Provides a balanced consideration of the needs of scientific research and the welfare of laboratory animals
- Written by a veterinary anesthetist and scientist with over 30 years' experience in the field, and who is actively engaged in research in this area
- Provides rapid, easily accessed information using tabulated summaries
- Provides those with limited experience of anesthesia with the information they need to carry out procedures effectively, safely, and humanely
- Provides sufficient depth for the more experienced anesthetist moving to this field

The framers of the 1985 amendments to the Federal Animal Welfare Act (AWA) envisioned the Institutional Animal Care and Use Committee (IACUC) as the linchpin--the central and cohesive element--of the laboratory animal care and use program at research, education, and testing organizations. Effective operation of this committee is essential if these organizations are to achieve full regulatory compliance, and, more importantly, retain the public's support for activities involving the use of animal subjects. In 1987, the Scientists Center for Animal Welfare, in cooperation with the American Association for Laboratory Animal Science, published a compilation of presentations made at five regional workshops on effective operation of IACUCs. In the decade since this compilation was published, nearly all of the 18 consensus recommendations developed by the workshop participants and the Center's Board of Trustees have either been incorporated into the AWA regulations or have been voluntarily adopted by institutions using animals subjects. The Care and Feeding of an IACUC: The Organization and Management of an Institutional Animal Care and Use Committee

superbly illustrates the progress and advances the animal-using communities have made in implementing these and other improvements in their animal care and use programs. The highly qualified contributors provide twelve information-packed chapters and ten appendices that provide IACUC chairs and members with an indispensable reference. This book summarizes information critical to the effective and efficient management and operation of an IACUC, and, as such, should be made available to IACUC members and administrative officials in every institution using laboratory animals. Care and use of animals in research are expensive, prompting efforts to contain or reduce costs. Components of those costs are personnel, regulatory compliance, veterinary medical care, and laboratory animal management, equipment, and procedures. Many efforts have been made to control and reduce personnel costs, the largest contributing factor to cost, through better facility and equipment design, more efficient use of personnel, and automation of many routine operations. However, there has been no comprehensive, recent analysis of the various cost components or examination of the strategies that have been proven or are purported to decrease the cost of animal facility operation. Strategies that Influence Cost Containment in Animal Research Facilities examines the current interpretation of governmental policy (Office of Management and Budget Circular A-21) concerning institutional reimbursement for overhead costs of an animal research facility and describes methods for economically operating an animal research facility. This report develops recommendations by which federal auditors and research institutions can establish what cost components of research animal facilities should be charged to institutions' indirect cost pool and what animal research facility cost components should be included in the per diem charges to investigators, and assesses the financial and scientific ramifications that these criteria would have among federally funded institutions. Further, the report determines the cost components of laboratory animal care and use in biomedical research and assesses and recommends methods of cost containment for institutions maintaining animals for biomedical research.

Laboratory animals, including birds, play an important role in biomedical research. The humane care and management of these animals is an ongoing concern. A new addition to the acclaimed Laboratory Animal Pocket Reference series, *The Laboratory Bird* is the first publication dedicated to the care and use of avian species in the research setting. Covering avian species such as chickens, ducks, doves, parrots, and songbirds that are commonly used as research models, the book is divided into focused chapters that cover a broad range of topics, including: General avian biology and physiology Husbandry Regulations and regulatory compliance regarding the use of birds in research Experimental methods Veterinary care Along with discussing applicable regulations, the book also details issues of health management and quarantine approaches. The final chapter provides resources such as organizations, publications, vendors, and diagnostic laboratories. With its focus on the care of a diverse group of avian species in biomedical research settings,

Read Book Management Of Laboratory Animal Care And Use Programs

The Laboratory Bird is a valuable reference for animal care and veterinary technicians, laboratory animal veterinarians, trainees in laboratory animal medicine, and research staff members, as well as individuals involved in laboratory work who lack experience in working with birds.

This 30-chapter volume informs students and professionals about the behavioral biology of animals commonly housed in laboratory and other captive settings. Each species evolved under specific environmental conditions, resulting in unique behavioral patterns, many of which are maintained in captivity even after generations of breeding. Understanding natural behavior is therefore a critical part of modern animal care practices. The descriptions, data, guidance, resources, and recommendations in this book will help the reader understand their animals better, refine the care and treatment that they receive, and improve the well-being, welfare, and wellness of their animals. The book is divided into three sections, all focusing on aspects of the behavioral biology of animals found in laboratories and related research settings. After five introductory chapters, 25 chapters are dedicated to specific taxonomic groups (including mice, zebrafish, zebra finches, reptiles, macaques) while a concluding section of ethograms provides a centralized resource for those interested in understanding, and potentially quantifying, animal behavior. The Behavioral Biology of Laboratory Animals will provide anyone working in maintenance, care, and/or research programs that involve laboratory animals with information about the way the animals live in the wild, and the way that they should live in captive research settings. Many of the guidelines and recommendations will also be valuable to those managing and working with animals in other environments, including zoological parks, aquaria, and sanctuaries.

It is now an established fact that laboratory animals play a very vital role in bio-chemical research particularly in the drug development programmes. The book includes comprehensive and updated information on all the topics, which is presented in a precise manner in a simple language, which becomes easy for students to understand. Further, with the touch of personal communication of authors out of their enriched experience in profession, for considerable long time, the information becomes more educative and lucrative for students as well as for the teacher. The book contains information on pet animals and animal welfare and ethics.

Laboratory animals, including dogs, play an important role in biomedical research and medical advances. Dogs have a long history of use in research and have contributed enormously to the health and welfare of both humans and animals. The humane care and management of these animals is a fundamental component of their use in medical research. The Laboratory Canine clearly presents basic background information covering subjects that apply specifically to dogs used in research settings, such as basic biological features, husbandry, management, veterinary care, experimental methodology, and resources. The book offers guidance on performing a detailed physical examination, including

Read Book Management Of Laboratory Animal Care And Use Programs

necessary veterinary supplies, clinical signs of illness, clinical conditions, and reference tables of widely used veterinary drugs. It discusses the human-animal bond or the relationship between people and animals and its significance and importance to the quality of research, the health of the animals, and the emotional health of staff caring for or working with animals. It also examines anesthetic and surgical procedures that include pre-, intra-, and post-anesthesia/operative monitoring. The Laboratory Canine contains reference charts for monitoring patients through post-operative recovery and reference tables for anesthetics and analgesics. Because dogs are a highly visible species in the eyes of the public and regulators, it is important that individuals working with laboratory canines have the proper training and experience. This valuable resource is ideal for those charged with the care and use of canines in a research setting.

AAP Prose Award Finalist 2018/19 Management of Animal Care and Use Programs in Research, Education, and Testing, Second Edition is the extensively expanded revision of the popular Management of Laboratory Animal Care and Use Programs book published earlier this century. Following in the footsteps of the first edition, this revision serves as a first line management resource, providing for strong advocacy for advancing quality animal welfare and science worldwide, and continues as a valuable seminal reference for those engaged in all types of programs involving animal care and use. The new edition has more than doubled the number of chapters in the original volume to present a more comprehensive overview of the current breadth and depth of the field with applicability to an international audience. Readers are provided with the latest information and resource and reference material from authors who are noted experts in their field. The book: - Emphasizes the importance of developing a collaborative culture of care within an animal care and use program and provides information about how behavioral management through animal training can play an integral role in a veterinary health program - Provides a new section on Environment and Housing, containing chapters that focus on management considerations of housing and enrichment delineated by species - Expands coverage of regulatory oversight and compliance, assessment, and assurance issues and processes, including a greater discussion of globalization and harmonizing cultural and regulatory issues - Includes more in-depth treatment throughout the book of critical topics in program management, physical plant, animal health, and husbandry. Biomedical research using animals requires administrators and managers who are knowledgeable and highly skilled. They must adapt to the complexity of rapidly-changing technologies, balance research goals with a thorough understanding of regulatory requirements and guidelines, and know how to work with a multi-generational, multi-cultural workforce. This book is the ideal resource for these professionals. It also serves as an indispensable resource text for certification exams and credentialing boards for a multitude of professional societies Co-publishers on the second edition are: ACLAM (American College of Laboratory Animal Medicine); ECLAM (European College of Laboratory Animal Medicine); IACLAM (International Colleges of

Read Book Management Of Laboratory Animal Care And Use Programs

Laboratory Animal Medicine); JCLAM (Japanese College of Laboratory Animal Medicine); KCLAM (Korean College of Laboratory Animal Medicine); CALAS (Canadian Association of Laboratory Animal Medicine); LAMA (Laboratory Animal Management Association); and IAT (Institute of Animal Technology).

The management of biomedical research using animals has become increasingly complex due to new technology, increased regulatory oversight, and recognition of the need for animals free of disease and distress. Within this changing environment, individuals charged with the management of laboratory animal facilities have a substantial responsibility to the institution, the public, and the animals. Management of Laboratory Animals Care and Use Programs provides both factual and theoretical information drawn from the substantial experience of authors who are noted experts in the field. This book will provide individuals with the basic knowledge and information necessary to meet typical professional challenges. A co-publication with the American Association for Laboratory Animal Science, this valuable book serves as the text for the Certified Manager Animal Resources (CMAR) exam.

Expanding on the National Research Council's Guide for the Care and Use of Laboratory Animals, this book deals specifically with mammals in neuroscience and behavioral research laboratories. It offers flexible guidelines for the care of these animals, and guidance on adapting these guidelines to various situations without hindering the research process. Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research offers a more in-depth treatment of concerns specific to these disciplines than any previous guide on animal care and use. It treats on such important subjects as: The important role that the researcher and veterinarian play in developing animal protocols. Methods for assessing and ensuring an animal's well-being. General animal-care elements as they apply to neuroscience and behavioral research, and common animal welfare challenges this research can pose. The use of professional judgment and careful interpretation of regulations and guidelines to develop performance standards ensuring animal well-being and high-quality research. Guidelines for the Care and Use of Mammals in Neuroscience and Behavioral Research treats the development and evaluation of animal-use protocols as a decision-making process, not just a decision. To this end, it presents the most current, in-depth information about the best practices for animal care and use, as they pertain to the intricacies of neuroscience and behavioral research.

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

Read Book Management Of Laboratory Animal Care And Use Programs

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.

The concept of the 3Rs (Refinement, Reduction and Replacement) has been used as a framework for improving the welfare of laboratory animals for the last half century. By establishing an animal-centric view on housing and management, *Animal-centric Care and Management: Enhancing Refinement in Biomedical Research* takes Russell and Burch's definition of Refinement as "elimination of inhumanities" and goes further. Rather than fitting animals into experimental conditions, it encourages readers to adjust conditions to better meet the behavioral, emotional, physical, and physiological needs and preferences of the animals. The team of expert authors, from the fields of laboratory animal science, ethology, biology as well as animal training, provide ideas for creating housing conditions and handling procedures that induce, to the best of current abilities and knowledge, a long-term positive state of mind in the animals under our care. This book is written for animal caretakers, animal health technicians, researchers, animal facility managers, laboratory animal veterinarians, and anyone who engages in work with living experimental animals or is interested in the continuous improvement of laboratory animal welfare. This interdisciplinary guide will act as a catalyst, resulting in multiple viewpoints and fields collaborating to optimize laboratory animal welfare.

Management of Laboratory Animal Care and Use ProgramsCRC Press

Key features: Presents practical information in easily accessible 'bullet point' format Covers anesthetic machine and related equipment, anesthetic management and monitoring, anesthesia and analgesia pharmacology, euthanasia, and record keeping Written by well-recognized experts in the laboratory animal community Provides extensive references to direct the reader to sources for further study of alternative techniques and their procedures Concludes with a thorough chapter on Regulatory Management of Rodent Anesthesia which has global application Rodents are the most commonly used species in biomedical research. Individuals conducting rodent research are often responsible to ensure that all areas of anesthesia and analgesia are performed humanely. Anesthetic agent selection, anesthetic monitoring, and postoperative pain assessment and management are essential to the institutional animal care and use program and contribute significantly to the 3Rs by reducing pain and/or distress and refining various procedures. *The Handbook of Laboratory Animal Anesthesia and Pain Management: Rodents* is the first book to capture multiple advances in this important area that greatly impacts various experimental methodologies. Richly illustrated in full color, the book serves as a quick reference source for investigators, veterinarians, technicians, and other animal caretakers charged with the care and use of rodents in a research setting. The unique format of this book also makes it

Read Book Management Of Laboratory Animal Care And Use Programs

extremely valuable to IACUC members, institutional officials, and occupational health and safety professionals.

Building upon the success of previous editions of the bestselling Handbook of Laboratory Animal Science, first published in 1994, this latest revision combines all three volumes in one definitive guide. It covers the essential principles and practices of Laboratory Animal Science as well as selected animal models in scientific disciplines where much progress has been made in recent years. Each individual chapter focuses on an important subdiscipline of laboratory animal science, and the chapters can be read and used as stand-alone texts, with only limited necessity to consult other chapters for information. With new contributors at the forefront of their fields, the book reflects the scientific and technological advances of the past decade. It also responds to advances in our understanding of animal behavior, emphasizing the importance of implementing the three Rs: replacing live animals with alternative methods, reducing the number of animals used, and refining techniques to minimize animal discomfort. This fourth edition will be useful all over the world as a textbook for laboratory animal science courses for postgraduate and undergraduate students and as a handbook for scientists who work with animals in their research, for university veterinarians, and for other specialists in laboratory animal science.

Even though *Xenopus* is one of the two most popular non-mammalian animals used in biomedical research, its value in the lab suffers from a lack of standardization regarding their optimal care, breeding, and housing. Filling the need for such a reference, *The Laboratory Xenopus sp* provides researchers and lab managers with a practical, step-by-step manual that emphasizes the humane care and use of captive clawed frogs in basic as well as biomedical, and toxicological research. The Only Book of Its Kind Available to Researchers Amply illustrated with 50 color illustrations of management practices and technical procedures, this how-to guide: Offers quick reference on the humane care and use of clawed frogs in the laboratory Illustrates management practices and technical procedures with figures and tables Provides sources of additional information on frogs, feed, and sanitation supplies Supported with hypothesis-driven research, this well-organized manual explores the full range of responsibilities facing individuals who work with this species. The content is divided into intentionally brief sections that allow for the quick retrieval of essential information regarding important biological features and experimental methodology, as well as compliance and veterinary care, husbandry, housing, and water quality management. The book has an accompanying website with more information, including interesting frog trivia.

Laboratory animal research remains a very important part of basic research and drug development. This book rectifies the problem by providing animal researchers and technicians with the essentials for conducting their work in the laboratory, offering detailed protocols and information that can be referred to on a daily basis.

This bestseller has been an essential book for all those working with laboratory animals since it was first published in 1994. This fourth edition retains all the classic features that have made it a must-have reference including emphasis on best practice in order to improve animal welfare. The contents have been thoroughly updated and reorganised to make sure it is a really practical book for day-to-day use in the laboratory. The first section of the book covers principles applicable to all species, for example husbandry, handling and the education and training required by scientists and technical staff working with animals in the laboratory. Later chapters focus on specific species or groups of species. New to this edition:

- Reflects changes in European legislation and their impact on national legislation
- Covers recommendations for the education and training of those carrying out animal experiments across Europe
- New chapters on ethical considerations and balancing animal welfare with science
- New information on environmental enrichment for laboratory animals
- Covers advancements in anaesthesia and analgesia and techniques
- Spiral bound for ease-of-use as a bench-top reference

This book is ideal for all personnel carrying out

Read Book Management Of Laboratory Animal Care And Use Programs

scientific procedures using animals, particularly during training and also for the new researcher. It will also be essential reading for study directors designing research programmes, animal technicians and veterinarians working with laboratory animal species.

This newly revised edition incorporates the regulatory requirements and improved practices for laboratory animal care that have developed over the past two decades. The volume covers Selection of dogs as research models. Design, construction, and maintenance of facilities. Temperature, humidity, food, water, bedding, sanitation, animal identification, record keeping, and transportation. General veterinary care, as well as special care of breeding animals and random-source animals. Laboratory Animal Management: Dogs examines controversies over proper cage sizes and interpretation of federal requirements for exercise and offers recommendations for researchers. Guidelines are provided on how to recognize and alleviate pain and distress in research dogs and on the sensitive topic of euthanasia. Laboratory Animal Management: Dogs discusses how to assemble a proper research protocol and how to handle conflicts. Outlined are procedures for institutional animal care and use and committee review. The volume also presents guidelines for handling aging dogs, use of radiation in experiments, and a wide range of other special circumstances. Thoroughly referenced, this guide will be indispensable to researchers, research administrators, review committees, and others concerned about laboratory dogs.

[Copyright: 427f4b492b28fa5461d84fd62784142e](#)