

Recognition and Alleviation of
Pain and Distress
in Laboratory Animals

NATIONAL RESEARCH COUNCIL

Recognition And Alleviation Of Pain And Distress In Laboratory Animals

**National Research Council, Institute for
Laboratory Animal
Research, Committee on Regulatory
Issues in Animal Care and Use**

Recognition And Alleviation Of Pain And Distress In Laboratory Animals:

Recognition and Alleviation of Pain and Distress in Laboratory Animals National Research Council, Commission on Life Sciences, Institute for Laboratory Animal Research, Committee on Pain and Distress in Laboratory Animals, 1992-01-01 Clear guidelines on the proper care and use of laboratory animals are being sought by researchers and members of the many committees formed to oversee animal care at universities as well as the general public This book provides a comprehensive overview of what we know about behavior pain and distress in laboratory animals The volume explores Stressors in the laboratory and the animal behaviors they cause including in depth discussions of the physiology of pain and distress and the animal's ecological relationship to the laboratory as an environment A review of euthanasia of lab animals exploring the decision the methods and the emotional effects on technicians Also included is a highly practical extensive listing by species of dosages and side effects of anesthetics analgesics and tranquilizers

Recognition and Alleviation of Pain and Distress in Laboratory Animals Committee on Pain and Distress in Laboratory Animals, Institute for Laboratory Animal Research, Commission on Life Sciences, National Research Council, 1992-01-15 Clear guidelines on the proper care and use of laboratory animals are being sought by researchers and members of the many committees formed to oversee animal care at universities as well as the general public This book provides a comprehensive overview of what we know about behavior pain and distress in laboratory animals The volume explores Stressors in the laboratory and the animal behaviors they cause including in depth discussions of the physiology of pain and distress and the animal's ecological relationship to the laboratory as an environment A review of euthanasia of lab animals exploring the decision the methods and the emotional effects on technicians Also included is a highly practical extensive listing by species of dosages and side effects of anesthetics analgesics and tranquilizers

Recognition and Alleviation of Pain in Laboratory Animals National Research Council, Division on Earth and Life Studies, Institute for Laboratory Animal Research, Committee on Recognition and Alleviation of Pain in Laboratory Animals, 2010-01-14 The use of animals in research adheres to scientific and ethical principles that promote humane care and practice Scientific advances in our understanding of animal physiology and behavior often require theories to be revised and standards of practice to be updated to improve laboratory animal welfare Recognition and Alleviation of Pain in Laboratory Animals the second of two reports revising the 1992 publication Recognition and Alleviation of Pain and Distress in Laboratory Animals from the Institute for Laboratory Animal Research ILAR focuses on pain experienced by animals used in research This book aims to educate laboratory animal veterinarians students researchers and investigators Institutional Animal Care and Use Committee members and animal care staff and animal welfare officers on the current scientific and ethical issues associated with pain in laboratory animals It evaluates pertinent scientific literature to generate practical and pragmatic guidelines for recognizing and alleviating pain in laboratory animals focusing specifically on the following areas physiology of pain in commonly used laboratory species

pharmacologic and non pharmacologic principles to control pain identification of humane endpoints and principles for minimizing pain associated with experimental procedures Finally the report identifies areas in which further scientific investigation is needed to improve laboratory animal welfare Recognition and Alleviation of Pain and Distress in Laboratory Animals ,1992 **Definition of Pain and Distress and Reporting Requirements for Laboratory Animals** National Research Council,Institute for Laboratory Animal Research,Committee on Regulatory Issues in Animal Care and Use,2000-12-26 In this first in a proposed series of workshops on regulatory issues in animal care and use the Institute for Laboratory Animal Research ILAR has addressed the existing and proposed requirements for reporting pain and distress in laboratory animals The Animal Welfare Act administered by the Animal and Plant Health Inspection Service of the United States Department of Agriculture USDA mandates that pain and distress in laboratory animals be minimized USDA is considering two policy changes with regard to this specific mandate Firstly since there has been no functional definition of distress USDA has prepared such a definition and requested feedback from the scientific community on its usefulness for regulatory and reporting requirements The second issue concerns the pain and distress categorization scheme for reporting to USDA Various groups and individuals have questioned the efficacy of the current categories and specific changes have been proposed by the Humane Society of the United States USDA is considering these and other potential changes to the existing scheme Thus given these potential changes to animal welfare policy the aim of the ILAR NIH joint workshop was to provide feedback to the USDA The speakers were asked to address these two issues as well as to comment upon whether the information contained in the 1992 ILAR report Recognition and Alleviation of Pain and Distress in Laboratory Animals is still useful to investigators in assisting them to comply with regulations The speakers provided perspectives based on their individual expertise in the areas of science of pain and distress animal welfare policy protocol review and or as representatives of relevant organizations or institutions The following proceedings are an edited transcript of their presentations *Recognition and Alleviation of Distress in Laboratory Animals* National Research Council,Division on Earth and Life Studies,Institute for Laboratory Animal Research,Committee on Recognition and Alleviation of Distress in Laboratory Animals,2008-04-10 Scientific advances in our understanding of animal physiology and behavior often require theories to be revised and standards of practice to be updated to improve laboratory animal welfare This new book from the Institute for Laboratory Animal Research ILAR at the National Research Council Recognition and Alleviation of Distress in Laboratory Animals focuses on the stress and distress which is experienced by animals when used in laboratory research This book aims to educate laboratory animal veterinarians students researchers and investigators animal care staff as well as animal welfare officers on the current scientific and ethical issues associated with stress and distress in laboratory animals It evaluates pertinent scientific literature to generate practical and pragmatic guidelines Recognition and Alleviation of Distress in Laboratory Animals focuses specifically on the scientific understanding of the causes and the functions of stress

and distress the transformation of stress to distress and the identification of principles for the recognition and alleviation of distress This book discusses the role of humane endpoints in situations of distress and principles for the minimization of distress in laboratory animals It also identifies areas in which further scientific investigation is needed to improve laboratory animal welfare in order to adhere to scientific and ethical principles that promote humane care and practice

Definition of Pain and Distress and Reporting Requirements for Laboratory Animals National Research Council, Institute for Laboratory Animal Research, Committee on Regulatory Issues in Animal Care and Use, 2001-01-26 In this first in a proposed series of workshops on regulatory issues in animal care and use the Institute for Laboratory Animal Research ILAR has addressed the existing and proposed requirements for reporting pain and distress in laboratory animals The Animal Welfare Act administered by the Animal and Plant Health Inspection Service of the United States Department of Agriculture USDA mandates that pain and distress in laboratory animals be minimized USDA is considering two policy changes with regard to this specific mandate Firstly since there has been no functional definition of distress USDA has prepared such a definition and requested feedback from the scientific community on its usefulness for regulatory and reporting requirements The second issue concerns the pain and distress categorization scheme for reporting to USDA Various groups and individuals have questioned the efficacy of the current categories and specific changes have been proposed by the Humane Society of the United States USDA is considering these and other potential changes to the existing scheme Thus given these potential changes to animal welfare policy the aim of the ILAR NIH joint workshop was to provide feedback to the USDA The speakers were asked to address these two issues as well as to comment upon whether the information contained in the 1992 ILAR report Recognition and Alleviation of Pain and Distress in Laboratory Animals is still useful to investigators in assisting them to comply with regulations The speakers provided perspectives based on their individual expertise in the areas of science of pain and distress animal welfare policy protocol review and or as representatives of relevant organizations or institutions The following proceedings are an edited transcript of their presentations

Encyclopedia of Animal Rights and Animal Welfare Marc Bekoff, Carron A. Meaney, 2013-12-16 Human beings responsibility to and for their fellow animals has become an increasingly controversial subject This book provides a provocative overview of the many different perspectives on the issues of animal rights and animal welfare in an easy to use encyclopedic format Original contributions from over 125 well known philosophers biologists and psychologists in this field create a well balanced and multi disciplinary work Users will be able to examine critically the varied angles and arguments and gain a better understanding of the history and development of animal rights and animal protectionist movements around the world Outstanding Reference Source Best Reference Source

Guide for the Care and Use of Laboratory Animals National Research Council, Division on Earth and Life Studies, Institute for Laboratory Animal Research, Committee for the Update of the Guide for the Care and Use of Laboratory Animals, 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

Mental Health and Well-being in Animals, 3rd Edition Franklin D. McMillan, 2025-06-16 Since the publication of the first edition of this book professional and public concern for the well being of animals has continued to increase throughout the world Advances in research and technologies have yielded an enormous amount of new knowledge about animal mental health and well being Thoroughly updated and revised with additional illustrations and photographs throughout this book remains invaluable to veterinary professionals animal welfare researchers and advocates ethologists and other animal caregivers

In vivo Models of HIV Disease and Control Herman Friedman, Steven Specter, Mauro Bendinelli, 2007-04-27 An AIDS vaccine is still elusive and HIV treatment continues to develop multidrug resistance at alarming rates Because of the similarities between HIV and immune deficiency infections in a variety of animals it is only natural that scientists use these animals as models to study pathogenesis treatment vaccine development and many other aspects of HIV Part of the series Infectious Agents and Pathogenesis this volume reviews the immune deficiency virus in a variety of hosts Pathogenesis vaccine and drug development epidemiology and the natural history of the monkey mouse cat cow horse and other animal viruses are detailed and compared to HIV Also included are chapters on the history and future of animal models as well as a chapter on ethical and safety considerations in using animal models for AIDS studies

Using Animals in Intramural Research ,1999 *Handbook of Laboratory Animal*

Management and Welfare Sarah Wolfensohn, Maggie Lloyd, 2008-04-15 This third edition of the bestseller Handbook of Laboratory Animal Management Welfare has been fully revised and updated making it an essential handbook for all those working with animals under the Animals Scientific Procedures Act 1986 Designed to be a practical reference book it covers every area of animal care and aims to improve animal welfare through best practice and refinement of techniques It covers principles applicable to all species including training of licensees the regulatory framework euthanasia management of pain and stress anaesthesia and surgery and also includes specific sections on biology and husbandry

Management of Animal Care and Use Programs in Research, Education, and Testing Robert H. Weichbrod, Gail A. (Heidbrink)

Thompson, John N. Norton, 2017-09-07 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 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

Reducing, Refining and Replacing the Use of Animals in Toxicity Testing David G. Allen, Dave Allen, Michael D. Waters, Mike D. Waters, 2013 This thought provoking book describes the ever expanding toolbox of methods now available to reduce refine or replace animal usage in toxicity testing

Anesthesia and Analgesia in Laboratory Animals Melissa Dyson, Paulin Jirkof, Jennie Lofgren, Elizabeth Nunamaker, Daniel Pang, 2023-05-17 Anesthesia and Analgesia in Laboratory Animals focuses on the special anesthetic analgesic and postoperative care requirements associated with experimental interventions Fully revised and updated this new edition provides the reader with agents methods and techniques for anesthesia and analgesia that ensure humane reproducible and successful procedural outcomes Sections cover ethical regulatory and scientific considerations principles of anesthesia and analgesia anesthetic equipment and monitoring periprocedural care including dedicated chapters to the assessment and management of pain in laboratory species and practical considerations by species including relevant anatomy physiology and behavior of a broad range of lab animal species This will be a complete reference for veterinarians involved in lab animal research as well as senior graduate graduate students post docs and researchers who utilize animals in biomedical research Provides researchers with the most comprehensive and up to date review of the use of anesthesia and analgesia in laboratory animals Includes complete coverage of agents impact in research outcomes Thoroughly updated with new material on ferrets birds reptiles amphibians fish and cephalopods Covers hot topic areas such as pain research ethical issues legal issues and imaging studies

The Welfare of Animals in Animal-Assisted Interventions Jose M. Peralta, Aubrey H. Fine, 2021-05-07 This is the first book focusing on the animal s perspective and best practices to ensure the welfare of both therapy animals and their human counterparts in animal assisted interventions Written by leading scientists it summarizes the scientific evidence available concerning the impacts on animals in these settings including companion species horses marine mammals and other animals used in therapy There has been a dramatic increase in the range of animal assisted interventions used in medical and allied health environments in recent years and the field is now entering an era with a greater interest in defining the underlying mechanisms of the human animal bond as well as the therapeutic benefits of these interactions Animal assisted interventions as with other uses of animals by humans impose a unique set of stresses on the animals which the community has only recently begun to acknowledge For the field to continue to flourish more evidence is needed to shed light on the implications for the animals and what guidelines need to be put into practice to ensure welfare With the ultimate goal of improving the impact that we have on the animals under our care the book provides a roadmap for researchers and clinicians as they attempt to safely and humanely incorporate various species of animals into therapeutic settings The authors also offer instructions and suggestions for areas that need to be studied more robustly over the next decade to continue to ensure the safe and proper use of animals in therapy sessions This is an informative thought provoking and instructive resource for practitioners and researchers in the field of medicine and clinical psychology using animal assisted interventions as well as

for veterinarians and welfare scientists **The Psychological Well-Being of Nonhuman Primates** National Research Council, Commission on Life Sciences, Institute for Laboratory Animal Research, Committee on Well-Being of Nonhuman Primates, 1998-11-03 A 1985 amendment to the Animal Welfare Act requires those who keep nonhuman primates to develop and follow appropriate plans for promoting the animals psychological well being The amendment however provides few specifics The Psychological Well Being of Nonhuman Primates recommends practical approaches to meeting those requirements It focuses on what is known about the psychological needs of primates and makes suggestions for assessing and promoting their well being This volume examines the elements of an effective care program social companionship opportunities for species typical activity housing and sanitation and daily care routines and provides a helpful checklist for designing a plan for promoting psychological well being The book provides a wealth of specific and useful information about the psychological attributes and needs of the most widely used and exhibited nonhuman primates Readable and well organized it will be welcomed by animal care and use committees facilities administrators enforcement inspectors animal advocates researchers veterinarians and caretakers **An Introduction to Veterinary Medical Ethics** Bernard E. Rollin, 2013-05-13 One of the most difficult issues that confronts veterinarians and staff today concerns the profession s obligation to the animal and the sometimes conflicting demands from clients peers and society The veterinarian s role has become more complex with new ethical challenges posed by issues such as growing public awareness regarding animal welfare increasing economic value of companion animals growth of veterinary specialization experimentation with alternative and complementary medicine and concern for pain management and mental well being of animals Written by an acknowledged pioneer in veterinary ethics An Introduction to Veterinary Medical Ethics addresses the ethical challenges that veterinarians face daily as they seek to balance obligations to animal client peers society and self The book offers a highly readable and approachable introduction to the nature of ethical theory reasoning and decision making and its practical application to veterinary medicine Now with over 100 real life veterinary case histories and analysis this edition also includes new discussions of animal pain distress and happiness ethics of critical care alternative medicine legal status and value of animals and Aesculapian authority An Introduction to Veterinary Medical Ethics Theory and Cases Second Edition is recommended as essential reading for all veterinary students and practitioners as well as those interested in general animal welfare New edition from an acknowledged pioneer in veterinary ethics Addresses ethical challenges that veterinary medicine with over 100 real life cases Includes new discussion of legal status and value of animals alternative medicine Aesculapian authority ethics and critical care and animal pain distress and happiness Ideal for veterinary students and practitioners Anesthesia and Analgesia in Laboratory Animals Dennis F. Kohn, Sally K. Wixson, William J. White, G. John Benson, 1997-05-01 Anesthesia and Analgesia in Laboratory Animals focuses entirely on the special anesthetic analgesic and postoperative care requirements associated with experimental surgery Sponsored by the American College of Laboratory

Animal Medicine this informative work provides the reader with agents methods and techniques for anesthesia and analgesia that ensure humane and successful procedural outcomes Focuses on a wide variety of animal species used in research
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