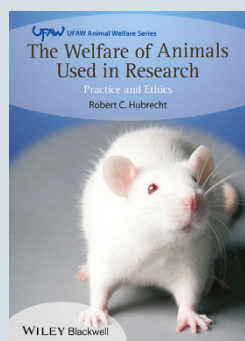


# Comprehensive coverage of ethics and practice

Reviewed by Sean Maguire, VMD, MS, DACLAM, MRCVS



## THE WELFARE OF ANIMALS USED IN RESEARCH: PRACTICE AND ETHICS

By Robert C. Hubrecht

Wiley-Blackwell, Chichester, UK

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*The Welfare of Animals Used in Research: Practice and Ethics* is a resource for those who are considering or pursuing a career involving animals in research or the ethical consideration of their welfare and use. It is an ample introduction to the complex issues and arguments that concern this field.

The book begins with a forward by Professor Dame Nancy Rothwell and an author's preface by Robert Hubrecht, both of which provide meaningful and experiential insights as to the value of such a comprehensive consideration of important issues related to the use and welfare of animals in research. The following seven chapters of the book overview these concerns in detail alongside thought-provoking questions written in a conversational and often colorful style. The text is well referenced and includes quotations from iconic cultural figures such as St. Augustine, Winston Churchill and Homer (Simpson); the author also provides important contextual comments in the footnotes.

The first, introductory chapter reviews the historical background of the use and considerations of animals in research. It discusses many important historical references and provides historical accounts such as numbers of animals used in research and the development of risk-benefit analyses. Between this and the third chapter, titled 'Animal Rights and Animal Welfare: Philosophy and Science', the author excellently articulates the framework of different schools of thought across the spectrum of opinions on the ethics of animal research.

The second chapter, titled 'The Use of Legislative and Other Controls on Animal Research to Meet Public Expectations and Improve Animal Welfare', broadly covers the range of legislative controls and discusses the differences and overlaps between the goals of improving animal welfare and the goals of satisfying societal needs and public perceptions. As a researcher and veterinarian based in the US, I found Hubrecht's explanations and comparisons of legislation from the UK, the European Union and the US to be particularly valuable.

The fourth chapter, titled 'Species Choice and Animal Welfare', provides a rational basis for deciding which species should be regulated by legislative and procedural controls, and to what degree they should be. It establishes this basis through discussions of animal consciousness, ways to assess sentience and species-specific capacities for suffering, with a particular focus on nonhuman primates. These discussions review important considerations that are sometimes overlooked when selecting a study species, and how these considerations factor into a harm-benefit analysis for species selection.

The fifth chapter, titled 'Harm-Benefit Judgment', describes different methods and models of harm-benefit analyses and discusses the strengths, weaknesses and general differences of each. Hubrecht reviews these in depth, considering the value of scientific and peer review, the validity of each model and methods for maximizing the benefit of research studies. He also intersperses his personal views, including a strong caution that the algorithms and outcomes of harm-benefit analyses should not undermine the importance of ongoing discussions; rather, they should supplement and inform ongoing discussions of research and animal welfare.

The sixth chapter, titled 'Improving the Welfare of Animals Used in Research: The 3Rs', recounts the complete history of the 3Rs (replacement, reduction and refinement). It thoroughly explains each concept and the challenges of implementing and improving upon these standards. The author explains possible reasons why some resist practicing 'refinement' and he discusses the need to balance 'refinement' and 'reduction'. He also cautions appropriately that there are rarely clear-cut answers in these deliberations.

The seventh chapter, titled 'Science and Animal Welfare', describes examples of how research advances have improved both scientific findings and animal welfare, especially with regard to the 3Rs. The chapter concludes with an optimistic reflection on these improvements, while looking forward to continued progress in the field.

Throughout this book, the author does an excellent job of acknowledging that the ethical debate over the use of animals in research is ongoing and will likely never be complete. Accordingly, he provides arguments from many diverse perspectives. This book is extremely well referenced and explicitly acknowledges the value, challenges and concerns of 'working group' reports that are periodically issued by leaders in the field of animal research. With useful references, tables, diagrams and questions, this resource represents a detailed but concise overview of the welfare of animals used in research. This book will be particularly valuable reading for anyone who is new to any aspect of animal research, care and welfare, or the ethical review process, and it provides more comprehensive introductory information than any single institution or program might offer.

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