

1. Record Nr.	UNINA9910253890203321
Titolo	Rodent Model as Tools in Ethical Biomedical Research // edited by Monica Levy Andersen, Sergio Tufik
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-11578-2
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (514 p.)
Disciplina	610
Soggetti	Neurosciences Behavioral sciences Behavioral Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	PART 1 Ethics -- CHAPTER 1 Introduction -- CHAPTER 2 The aspects of the use of rodents in experimental research -- CHAPTER 3 The impact of the environment on laboratory animals -- CHAPTER 4 Basic concepts in alternative methods to the use of animals -- CHAPTER 5 Care and Maintenance of Laboratory Animals -- CHAPTER 6 Euthanasia -- PART 2 Use of Rats -- CHAPTER 7 The Health of Laboratory Animals -- CHAPTER 8 Rats -- CHAPTER 9 The Female Rat -- PART 3 General Procedures and Methods in Rodents Research -- CHAPTER 10 Anaesthesia in Laboratory Animals -- CHAPTER 11 Various Surgical Procedures in Rodents -- CHAPTER 12 Transgenic Animals: Principles, Methods and Applications -- CHAPTER 13 Measuring Electrocardiogram and Heart Rate in Small laboratory animals with Radi-Telemetry -- CHAPTER 14 Gene Expression Studies Using Microarrays -- CHAPTER 15 Brain Microdialysis -- PART 4 Behavioral Models in Rodents -- CHAPTER 16 Sexual Behavior in rats: An Animal Model for the Study of the Neuroendocrine System -- CHAPTER 17 Maternal Behavior -- CHAPTER 18 Behavioral Methods to Study Learning and Memory in Rats -- CHAPTER 19 Animal Tests for Anxiety -- CHAPTER 20 The Plus-Maze Discriminative Avoidance Task: An Ethical Rodent Model for Concomitant Evaluation of Learning, Memory, Anxiety, Motor Activity and their Interactions -- CHAPTER 21 Rodent Models in Psychiatric

Research -- PART 5 Other uses of Rodent Models -- CHAPTER 22 Male Reproductive Toxicology -- CHAPTER 23 Sleep Patterns in Rats -- CHAPTER 24 Narcolepsy-Cataplexy in the Rats -- CHAPTER 25 Hypoxia: Introduction of Mechanisms and Consequences -- CHAPTER 26 Assessment of Motor Function in Rodents: Behavioral Models Sharing Simplicity and Multifaceted Applicability Part 1: The Open-Field Test\* -- CHAPTER 27 Assessment of Motor Function in Rodents: Behavioral Models Sharing Simplicity and Multifaceted Applicability Part 2: The Catalepsy Test -- CHAPTER 28 Assessment of Motor Function in Rodents: Behavioral Models Sharing Simplicity and Multifaceted Applicability Part 3: Orafacial Dyskinesia -- CHAPTER 29 Experimental Diet Models in the Investigation of Obesity.

---

## Sommario/riassunto

The objective of this book is to concisely present information with respect to appropriate use of experimental rodents in research. The principles elaborated seek to provide knowledge of the techniques involved in both management and scientific research to all who use laboratory animals, with a focus on the well-being and ethics regarding rodents and also to fortify the awareness of the importance of the animal as a study object and to offer orientation and assistance in conducting laboratory research, education or tests.

---