

• TABLE OF CONTENTS

Contributors

Preface

Section I Biology and Husbandry

Chapter 1 Taxonomy, History, and Use
James G. Fox

Chapter 2 Anatomy of the Ferret
Howard Evans and Nguyen Quoc An

Chapter 3 Neuroanatomy of the Ferret Brain with Focus on the Cerebral Cortex 69
Christopher D. Kroenke, Brian D. Mills, Jaime F. Olavarria, and Jeffrey J. Neil

Chapter 4 Physiology of the Ferret
Mark T. Whary

Chapter 5 Nutrition of the Ferret
James G. Fox, Carrie S. Schultz, and Brittany M. Vester Boler

Chapter 6 Housing and Management
James G. Fox and Rosemary Broome

Chapter 7 Normal Clinical and Biological Parameters
James G. Fox

Chapter 8 Growth and Reproduction
James G. Fox, Judith A. Bell, and Rosemary Broome

Chapter 9 Regulatory Considerations
Robert P. Marini

Chapter 10 Recovery of the Black-Footed Ferret
Rachel Santymire, Heather Branvold-Faber, and Paul E. Marinari

Section II Diseases and Clinical Applications

Chapter 11 Physical Examination, Preventive Medicine, and Diagnosis in the Ferret
Robert P. Marini

Chapter 12 Anesthesia
Jeff C. Ko and Robert P. Marini

Chapter 13 Surgery
Stephen J. Mehler

Chapter 14 Diseases of the Hematopoietic System
Jörg Mayer, Susan E. Erdman, and James G. Fox

Chapter 15 Diseases of the Genitourinary System
James G. Fox and Judith A. Bell

Chapter 16 Diseases of the Gastrointestinal System
Kirk J. Maurer and James G. Fox

Chapter 17 Diseases of the Endocrine System
Cassandra L. Miller, Robert P. Marini, and James G. Fox

Chapter 18 Diseases of the Cardiovascular System
Robert A. Wagner

Chapter 19 Other Systemic Diseases
James G. Fox

Chapter 20 Viral Diseases of Ferrets
Matti Kiupel and David Perpiñán

Chapter 21 Bacterial and Mycoplasmal Diseases
Alton G. Swennes and James G. Fox

Chapter 22 Parasitic Diseases
Mary M. Patterson, James G. Fox, and Mark L. Eberhard

Chapter 23 Mycotic Diseases
James G. Fox

Chapter 24 Neoplastic Diseases
James G. Fox, Sureshkumar Muthupalani, Matti Kiupel, and Bruce Williams

Section III Research and Applications

Chapter 25 The Ferret in Viral Respiratory Disease Research
Deborah R. Taylor

Chapter 26 The Ferret in Morbillivirus Research
Veronika von Messling

Chapter 27 Use of the Ferret in Cardiovascular Research
James P. Morgan

Chapter 28 Genetic Engineering in the Ferret
Xingshen Sun, Ziyang Yan, Xiaoming Liu, Alicia K. Olivier, and John F. Engelhardt

Chapter 29 Hearing and Auditory Function in Ferrets
Fernando R. Nodal and Andrew J. King

Chapter 30 The Ferret as a Model for Visual System Development and Plasticity
Jitendra Sharma and Mriganka Sur

Chapter 31 The Ferret in Nausea and Vomiting Research: Lessons in Translation of
Basic Science to the Clinic
Nathalie Percie du Sert and Paul L.R. Andrews

Chapter 32 The Ferret in Lung Carcinogenesis and Nutritional Chemoprevention
Research
Xiang-Dong Wang and Chun Liu

Index.