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Formato Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Fundamental Neuropathology for Pathologists and Toxicologists: Principles and Techniques; CONTENTS; CONTRIBUTORS; FOREWORD; PREFACE: INTRODUCTION: PART 1: FUNDAMENTALS OF NEUROBIOLOGY; 1 Fundamental Neuropathology for Pathologists and Toxicologists: An Introduction; 2 Functional Neuroanatomy; 3 Atlas of Comparative Neuroanatomy; 4 Principles of Comparative and Correlative Neurodevelopment and Their Implications for Developmental Neurotoxicity; 5 Localizing Neuropathological Lesions Using Neurological Findings; 6 Behavioral Model Systems for Evaluating Neuropathology 7 Cognitive Assessments in Nonhuman Primates8 Impact of Aging on Brain Structure and Function in Rodents and Canines: 9 Fundamentals of Neurotoxicity Detection; PART 2: TOXICOLOGIC NEUROPATHOLOGY: METHODOLOGY; 10 Practical Neuropathology of the Rat and Other Species; 11 Fluoro-Jade Dyes: Fluorochromes for the Histochemical Localization of Degenerating Neurons; 12 Histological Markers of Neurotoxicity (Nonfluorescent); 13 Common Histological Artifacts in Nervous System Tissues; 14 High-Definition Microscopic Analysis of the Nervous System 15 Stereological Solutions for Common Quantitative Endpoints in Neurotoxicology16 Anatomy and Processing of Peripheral Nerve Tissues; 17 Pathology Methods in Nonclinical Neurotoxicity Studies: Evaluation of Muscle; 18 In Vivo Imaging Applications for the Nervous System in Animal Models; 19 Cerebrospinal Fluid Analysis in Toxicological Neuropathology; 20 Molecular Techniques in Toxicological Neuropathology; PART 3: TOXICOLOGICAL NEUROPATHOLOGY: CURRENT PRACTICES; 21 Evaluation of the Adult Nervous System in Preclinical Studies 22 Pathology Methods in Nonclinical Neurotoxicity Studies: The Developing Central Nervous System23 Neuropathological Analysis of the Peripheral Nervous System; 24 Toxicological Pathology of the Retina and Optic Nerve; 25 Toxicological Neuropathology of the Ear; 26 Neuropathology of the Olfactory System: PART 4: APPLIED TOXICOLOGICAL NEUROPATHOLOGY: 27 Spinal Delivery and Assessment of Drug Safety; 28 Diagnostic Neuropathology; 29 Toxicological Neuropathology in Medical Practice: 30 Toxicological Neuropathology in Veterinary Practice 31 Regulatory Considerations in Toxicological Neuropathology32 The Neuropathology Report and the Neuropathology Peer Review Report: 33 Preparation of Personnel for Performing Neuropathological Assessment: 34 Regulatory Guide to the Histopathological Assessment of Neurotoxicity Studies; 35 Toxicological Neuropathology: The Next Two Decades; APPENDIXES: READY REFERENCES OF NEUROBIOLOGY KNOWLEDGE; Appendix 1: Neural Cell Markers of Potential Utility for Toxicological Neuropathology Applications; Appendix 2: Text-Based Neuroanatomic Atlases for Toxicological Neuropathology Studies Appendix 3: Text-Based Neurobiology References for Toxicological Neuropathologists Sommario/riassunto

This book offers pathologists, toxicologists, other medical professionals, and students an introduction to the discipline and techniques of neuropathology - including chemical and environmental, biological, medical, and regulatory details important for performing an analysis of toxicant-induced neurodiseases. In addition to a section on fundamentals, the book provides detailed coverage of current practices (bioassays, molecular analysis, and nervous system pathology) and practical aspects (data interpretation, regulatory considerations, and tips for preparing reports).