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and Cell Movement; IV. The Organizer Phenomenon: Conserved Properties of Vertebrate Organizers
V. The Vertebrate Organizer is a Dynamic, Nonhomogeneous, and Renewable Cell Population at Gastrulation
VI. Insights into the Function of the Mouse Organizer Gained from Genetic and Embryological Studies; VII. Genetic Analysis of Organizer Function: Mouse Mutants Showing Defects in Organizer Function; VIII. Inhibitory Signals Secreted by the Organizer and Its Derivatives; IX. Specification of the Primitive Streak and the Organizer; X. Role of the AVE in Anterior Patterning in Mouse; XI. Embryological and Genetic Analysis of the Function of the AVE in Anterior Patterning
XII. A Model for AVE Function in Anterior Patterning
XIII. Conclusions and Future Directions; References;
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Chapter 5. Patterning, Regionalization, and Cell Differentiation in the Forebrain
I. Organization of the Forebrain
II. Early Patterning and Regional Specification of the Forebrain; III. Morphogenetic Mechanisms in the Forebrain; IV. Control of Neurogenesis and Cell-Type Specification in the Forebrain; References;
Chapter 6. Establishment of Anterior-Posterior and Dorsal-Ventral Pattern in the Early Central Nervous System; I. Overview of Early CNS Development and Patterning; II. Anterior-Posterior Patterning of the Mesencephalon and Metencephalon; III. Hindbrain Anterior-Posterior Patterning Involves Segmental Units of Development
IV. CNS Dorsal-Ventral Patterning Involves a Tug of War between Dorsal and Ventral Signaling

Sommario/riassunto

This book represents a classic compilation of current knowledge about mouse development and its correlates to research in cell biology, molecular biology, genetics, and neuroscience. Emphasis is placed on the research strategy, experimental design, and critical analysis of the data, distinguishing this from other books that only focus on protocols for mouse developmental research. Selected chapters are indexed to electronic databases such as GeneBank, GenBank, Electronic Mouse Atlas, and Transgenic/Knockout, further increasing the utility of this book as a reference.*Broad-based overview
