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PROSPECTS; 2.7 CLINICAL RELEVANCE; RECOMMENDED RESOURCES; REFERENCES; Chapter 3 - Using Mutagenesis in Mice for Developmental Gene Discovery; SUMMARY; 3.1 USE OF ENU AS A MUTAGEN; 3.2 ENU-INDUCED MUTATIONS IN MICE; 3.3 ENU-INDUCED MUTATIONS AFFECTING DEVELOPMENT; 3.4 IDENTIFICATION OF MODIFIER LOCI; 3.5 CLINICAL RELEVANCE; RECOMMENDED RESOURCES; REFERENCES; Chapter 4 - Chemical Approaches to Controlling Cell Fate; SUMMARY; 4.1 INTRODUCTION 4.2 CHEMICAL APPROACHES TO CONTROLLING CELL FATE 4.3 CLINICAL RELEVANCE; ACKNOWLEDGMENT/GRANT SUPPORT; RECOMMENDED RESOURCES; Web sites; Reviews; REFERENCES; Chapter 5 - BMP Signaling and Stem Cell Self-Renewal in the Drosophila Ovary; SUMMARY; 5.1 INTRODUCTION; 5.2 THE DROSOPHILA OVARY; 5.3 THE BMP SIGNALING PATHWAY; 5.4 REGULATION OF BMP SIGNALING BY EXTRINSIC FACTORS; 5.5 REGULATION OF BMP SIGNALING BY INTRINSIC FACTORS; 5.6 ADDITIONAL REGULATORS; 5.7 SELECTED TOPICS; 5.8 BMP SIGNALING AND STEM CELL HOMEOSTASIS IN VERTEBRATES; 5.9 CONCLUSIONS; 5.10 CLINICAL RELEVANCE; RECOMMENDED RESOURCES Publications Websites; REFERENCES; Chapter 6 - Genomic Analyses of Neural Stem Cells; SUMMARY; 6.1 INTRODUCTION; 6.2 THE IMPORTANCE OF GLOBAL ANALYSIS AND CAVEATS WHEN COMPARING CELL SAMPLES; 6.3 THE USE OF A REFERENCE STANDARD; 6.4 EPIGENETIC MODULATION; 6.5 MICRORNA; 6.6 MITOCHONDRIAL SEQUENCING; 6.7 TRANSCRIPTOME MAPPING; 6.8 DATA MINING: CHROMOSOME MAPPING, PATHWAY ANALYSIS, DATA REPRESENTATION; 6.9 GENERAL OBSERVATIONS ABOUT THE PROPERTIES OF NEURAL STEM CELLS; 6.10 SPECIES DIFFERENCES; 6.11 LACK OF A "STEMNESS" PHENOTYPE; 6.12 ALLELIC VARIABILITY; 6.13 AGE DEPENDENT CHANGES IN NSCS 6.14 CANCER STEM CELLS

Sommario/riassunto

Providing expert coverage of all major events in early embryogenesis and the organogenesis of specific systems, and supplemented with representative clinical syndromes, Principles of Developmental Genetics, Second Edition discusses the processes of normal development in embryonic and prenatal animals, including humans. The new edition of this classic work supports clinical researchers developing future therapies with its all-new coverage of systems biology, stem cell biology, new technologies, and clinical disorders. A crystal-clear layout, exceptional full-color design, and bulleted summaries