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Nota di contenuto	Table of Contents -- Preface -- List of Figures -- List of Tables -- List of Contributors -- List of Abbreviations -- ; 1. Stem Cell Concepts -- ; 2. Transcription Regulation by Distal Enhancers : Dynamics of the 3D Genome -- ; 3. Repair of DNA Double-Strand Breaks in Adult Stem Cells -- ; 4. Haematopoietic Stem Cell Niches in the Bone Marrow -- ; 5. Computational Models of Spatio-Temporal Stem Cell -- ; 6. Transcriptomics Investigations -- ; 7. The Regulatory Network of X-Chromosome Inactivation -- ; 8. Directed Differentiation of Human-Induced Pluripotent Stem Cells into Hepatic Cells. : A Transposable Example of Disease Modeling and Regenerative Medicine Applications -- ; 9. Hydra and the Evolution of Stem Cells -- ; 10. Regeneration in Amniotic Vertebrates -- ; 11. Stem Cells and Regeneration in Plants -- ; 12. Hematopoietic Development in Vertebrates -- ; 13. Developmental Biology of Hematopoietic Stem Cells : Non-Cell Autonomous Mechanisms -- ; 14. Biology of Hematopoietic Stem Cells in the Adult -- ; 15. Epithelial Stem Cells in the Skin -- ; 16. Mammary Stem Cells -- ; 17. The Intestinal Stem Cells in Homeostasis and Repair -- ; 18.

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Sommario/riassunto

The study of stem cell biology is under intensive investigation. Because stem cells have the unique capability to self-renew and differentiate into one or several cell types, they play a critical role in development, tissue homeostasis and regeneration. Stem cells also constitute promising cell candidates for cell and gene therapy. The aim of this book is to provide readers and researchers with timely and accurate knowledge on stem cell biology and regenerative medicine. This book will cover many topics in the field and is based on conferences given by recognized scientists involved in the international master course on stem cell biology at Sorbonne Université in Paris.
