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to Control Stem Cell Functions; PART V

18 Improved Lentiviral Gene Delivery Tools for Stem Cells; 19 Sleeping Beauty-Mediated Transposition in Stem Cells; 20 PhiC31 Integrase for Modification of Stem Cells; 21 Cell Engineering Using Integrase and Recombinase Systems; PART VI; 22 Human Embryonic Stem Cell-Derived Cardiomyocytes for Cell Therapy and Drug Discovery; 23 Human Embryonic Stem Cells in Drug Discovery; 24 Characterization and Culturing of Adipose-Derived Precursor Cells; 25 Bringing Mesenchymal Stem Cells into the Clinic; Index

Sommario/riassunto

This book focuses on practical applications for using adult and embryonic stem cells in the pharmaceutical development process. It emphasizes new technologies to help overcome the bottlenecks in developing stem cells as therapeutic agents. A key reference for professionals working in stem cell science, it presents the general principles and methodologies in stem cell research and covers topics such as derivitization and characterization of stem cells, stem cell culture and maintenance, stem cell engineering, applications of high-throughput screening, and stem cell genetic modification with the
