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Titolo	Adult Stem Cells / / edited by Kursad Turksen
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ISBN	1-4614-9569-5
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Descrizione fisica	1 online resource (433 p.)
Collana	Stem Cell Biology and Regenerative Medicine, , 2196-8985
Disciplina	571.8/35
Soggetti	Stem cells Biotechnology Cell biology Stem Cells Cell Biology
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Signaling Pathways Maintaining Stemness in Adult Hematopoietic Stem Cells -- The Adult Stem Cell Niche -- Adult Stem Cells: Adult Skeletal Muscle Stem Cells -- Adult Cardiac Stem Cells: Identity, Location and Potential -- Adult Pituitary Stem Cells -- Toward Translating Molecular Ear Development to Generate Hair Cells from Stem Cells -- Adult Human Corneal Epithelial Stem Cells -- Adult Stem Cells in Teeth -- Adult Mammary Stem Cells: Identity, Location and Functional Assays -- Adult Ovary Stem Cells -- Adult Prostate Stem Cells -- Adult Lung Stem Cells -- Adult Liver Stem Cells -- Lineage-committed Pancreatic Progenitors and Stem Cells -- Adult Stromal (Skeletal, Mesenchymal) Stem Cells -- Regeneration after Injury - Activation of Stem Cell Stress Response Pathways to Rapidly Repair Tissues -- Molecular and Endocrine Mechanisms Underlying the Stem Cell Theory of Aging.
Sommario/riassunto	Adult Stem Cells, second edition, takes a critical look at issues concerning the developmental or differentiation potential for a variety of tissue types and for specific adult stem cell types. Since the first edition appeared a decade ago, our understanding of adult stem cells, and more specifically tissue-specific adult stem cells, has advanced tremendously. And an increased interest in regenerative medicine and

potential stem cell applications has driven a quest for better understanding of stem cell biology. In turn, this has spawned much activity on generation and utilization of more and better reagents to identify and isolate stem cells and stem cell-like subpopulations, and on assays elucidating their developmental or differentiation potential and functional integration with host tissues and organs. In this fully updated new edition, chapters cover topics ranging from signaling pathways maintaining stemness in hematopoietic cells to regeneration after injury and endocrine mechanisms underlying the stem cell theory of aging. Other chapters cover stem cells by organ or system including pituitary, cardiac, epithelial, teeth, lung, ovary, prostate, liver, and many more. Importantly, the authors of the chapters have not only summarized their successes, but have also summarized some of the difficulties that each particular field is still facing with respect to maximizing the utility of stem cells in clinical settings. Collectively, they impart both the excitement and challenges facing stem cell utilization for repair and regeneration making this book essential reading for those involved in stem cell research as well as those involved in clinical assays.