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Titolo	Cartilage Regeneration / / edited by Yunfeng Lin
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Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (V, 97 p.)
Collana	Stem Cell Biology and Regenerative Medicine, , 2196-8985
Disciplina	576
Soggetti	Stem cells Regenerative medicine Tissue engineering Biomedical engineering Orthopedics Stem Cells Regenerative Medicine/Tissue Engineering Biomedical Engineering and Bioengineering Surgical Orthopedics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Application of Stem Cells and the Factors Influence their Differentiation in Cartilage Tissue Engineering -- Application of Scaffold Materials in Cartilage Tissue Engineering -- Cellular Response to Surface Topography and Substrate Stiffness -- Electrospun Fibrous Scaffolds for Cartilage Tissue Regeneration -- The Research Advances of Nanomaterials Inducing Osteogenic and Chondrogenic Differentiation of Stem Cells.
Sommario/riassunto	This book focuses on cartilage defects and new mesenchymal stem cell-based treatments for their repair and regeneration. Early chapters provide a review of current etiological findings and repair methods of cartilage defects. The next chapters discuss fundamental concepts and features of MSCs, including their proliferation, differentiation, migration and immunomodulatory effects. The discussion also includes clinical applications of MSCs in cartilage tissues, especially with regards

to various animal models, biomaterials and transferring techniques. Cartilage Regeneration focuses on the biology of MSCs and their possible applications in cartilage reconstruction, with the goal of bringing new insights into regenerative medicine. It will be essential reading for researchers and clinicians in stem cells, regenerative medicine, biomedical engineering and orthopedic surgery.