

Contents

<i>Preface</i>	<i>v</i>
<i>Contributors</i>	<i>ix</i>
1 Comprehensive Hematopoietic Stem Cell Isolation Methods	1
<i>Kyle Rector, Yi Liu, and Gary Van Zant</i>	
2 Serial Transplantation of Bone Marrow to Test Self-renewal Capacity of Hematopoietic Stem Cells In Vivo	17
<i>Charusheila Ramkumar, Rachel M. Gerstein, and Hong Zhang</i>	
3 Mouse Hematopoietic Stem Cell Transplantation	25
<i>Hui Cheng, Paulina H. Liang, and Tao Cheng</i>	
4 Isolation, Characterization, and Transplantation of Adult Liver Progenitor Cells	37
<i>Mladen I. Yovchev, Mariana D. Dabeva, and Michael Oertel</i>	
5 Isolation of Muscle-Derived Stem/Progenitor Cells Based on Adhesion Characteristics to Collagen-Coated Surfaces	53
<i>Mitra Lavasani, Aiping Lu, Seth D. Thompson, Paul D. Robbins, Johnny Huard, and Laura J. Niedernhofer</i>	
6 Human Myoblasts from Skeletal Muscle Biopsies: In Vitro Culture Preparations for Morphological and Cytochemical Analyses at Light and Electron Microscopy	67
<i>Manuela Malatesta, Marzia Giagnacovo, Rosanna Cardani, Giovanni Meola, and Carlo Pellicciari</i>	
7 Cardiac Stem Cell Senescence	81
<i>Daniela Cesselli, Federica D'Aurizio, Patrizia Marcon, Natascha Bergamin, Carlo Alberto Beltrami, and Antonio Paolo Beltrami</i>	
8 Isolation of Mesenchymal Stem Cells from Human Bone and Long-Term Cultivation Under Physiologic Oxygen Conditions	99
<i>Sebastian Klepsch, Angelika Jamnig, Daniela Trimmel, Magdalena Schimke, Werner Kapferer, Regina Brunauer, Sarvpreet Singh, Stephan Reitingner, and Günter Lepperdinger</i>	
9 Methods for Assessing Effects of Wnt/ β -Catenin Signaling in Senescence of Mesenchymal Stem Cells.	111
<i>Hai-jie Wang and Yu-zhen Tan</i>	
10 Intra-femoral Injection of Human Mesenchymal Stem Cells	131
<i>Sindhu T. Mohanty and Ilaria Bellantuono</i>	
11 Tracking of Replicative Senescence in Mesenchymal Stem Cells by Colony-Forming Unit Frequency	143
<i>Anne Schellenberg, Hatim Hemeda, and Wolfgang Wagner</i>	

12	Chromatin Immunoprecipitation Coupled by Quantitative Real-Time PCR as a Tool for Analyzing Epigenetic Regulation of Stem Cell Aging.	155
	<i>Seunghye Lee, Ji-Won Jung, and Kyung-Sun Kang</i>	
13	Quantitative Fluorescence In Situ Hybridization on Paraffin Embedded Tissue	167
	<i>Mario Ricciardi, Mauro Krampera, and Marco Chilosì</i>	
	<i>Index</i>	175



<http://www.springer.com/978-1-62703-316-9>

Stem Cells and Aging
Methods and Protocols
Turksen, K. (Ed.)
2013, XI, 179 p., Hardcover
ISBN: 978-1-62703-316-9
A product of Humana Press