

# Contents

<b>The Hematopoietic Stem Cell Niche: Cell-Cell Interactions and Quiescence . . . . .</b>	<b>1</b>
Paul J. Childress, Marta B. Alvarez, Brahmananda R. Chitteti, Melissa A. Kacena and Edward F. Srouf	
<b>The Mammalian Limbal Stem Cell Niche: A Complex Interaction Between Cells, Growth Factors and Extracellular Matrix . . . . .</b>	<b>23</b>
Federico Castro-Muñozledo	
<b>Emerging Engineering Strategies for Studying the Stem Cell Niche . . .</b>	<b>57</b>
Olivia J. Scheideler, Lydia L. Sohn and David V. Schaffer	
<b>Bioreactors and the Design of the Stem Cell Niche . . . . .</b>	<b>107</b>
Yongjia Fan, Donghui Jing and Emmanuel S. Tzanakakis	
<b>Stem Cell Niche-Radiobiological Response . . . . .</b>	<b>129</b>
David J. Olivos III, Rajendran Sellamuthu, Pratibha Singh, Sasidhar Vemula, Louis M. Pelus, Christie M. Orschell and Melissa A. Kacena	
<b>Impact of Radiation on Hematopoietic Niche . . . . .</b>	<b>147</b>
Setsuko Mise-Omata, Takahiro S. Doi, Kazuhiro Aoki and Yuichi Obata	
<b>From Neurogenic Niche to Site of Injury: Stem Cell-Mediated Biobridge for Brain Repair . . . . .</b>	<b>161</b>
Ike De La Pena, Naoki Tajiri, Sandra Acosta, Stephanny Reyes, Arum Yoo, Michael McGrogan, Irina Aizman, Ernest Yankee, Damien Bates and Cesar V. Borlongan	

<b>Using Stem Cells to Promote Wound Healing: An Emerging Solution for a Clinical Problem . . . . .</b>	<b>173</b>
Anthony D. Foster and Thomas A. Davis	
<b>Cancer Stem Cell Niche . . . . .</b>	<b>197</b>
M. Mathonnet, A. Perraud, S. Blondy, N. Christou, H. Akil, S. Battu and M.O. Jauberteau	
<b>Insight into Cancer Stem Cell Niche; Lessons from Cancer Stem Cell Models Generated In Vitro . . . . .</b>	<b>211</b>
Akifumi Mizutani, Ting Yan, Arun Vaidyanath, Junko Masuda, Akimasa Seno, Tomonari Kasai, Hiroshi Murakami and Masaharu Seno	
<b>Index . . . . .</b>	<b>227</b>



<http://www.springer.com/978-3-319-21701-7>

Biology in Stem Cell Niche

Turksen, K. (Ed.)

2015, XII, 228 p., Hardcover

ISBN: 978-3-319-21701-7