

# Contents

---

<i>Preface</i> .....	<i>v</i>
<i>Contributors</i> .....	<i>ix</i>
1 Defining Neural Stem Cells and Their Role in Normal Development of the Nervous System <i>Sally Temple</i> .....	<i>1</i>
2 Neural Stem Cells in the Adult Brain: <i>Implications of Their Glial Characteristics</i> <i>Daniel A. Lim and Arturo Alvarez-Buylla</i> .....	<i>29</i>
3 Cellular and Molecular Properties of Multipotent Neural Stem Cells Throughout Ontogeny <i>Larysa Halyna Pevny</i> .....	<i>49</i>
4 Multipotent Stem Cells in the Embryonic Nervous System <i>Ali Jalali, Michael Bonaguidi, Caitilin Hamill, and John A. Kessler</i> .....	<i>67</i>
5 Regulation of Neural Stem Cell Death <i>Rizwan S. Akhtar and Kevin A. Roth</i> .....	<i>97</i>
6 Neuronal Progenitor Cells of the Mammalian Neonatal Anterior Subventricular Zone <i>Douglas L. Falls and Marla B. Luskin</i> .....	<i>123</i>
7 Glial Restricted Precursors <i>Mark Noble and Margot Mayer-Pröschel</i> .....	<i>143</i>
8 PNS Precursor Cells in Development and Cancer <i>Houman D. Hemmati, Tanya A. Moreno, and Marianne Bronner-Fraser</i> .....	<i>189</i>
9 Stem Cells of the Adult Olfactory Epithelium <i>James E. Schwob and Woochan Jang</i> .....	<i>219</i>
10 Retinal Stem Cells <i>Ani V. Das, Jackson James, Sreekumaran Edakkot, and Iqbal Ahmad</i> .....	<i>235</i>
11 Transdifferentiation in the Nervous System <i>Ying Liu and Mahendra S. Rao</i> .....	<i>249</i>
12 Neural Progenitor Cells of the Adult Human Brain <i>Steven A. Goldman</i> .....	<i>267</i>

13	Embryonic Stem Cells and Neurogenesis <i>Robin L. Wesselschmidt and John W. McDonald</i> .....	299
14	Mobilizing of Neural Precursors in the Adult Central Nervous System <i>Theo D. Palmer and Fred H. Gage</i> .....	343
15	Neural Stem Cells and Transplant Therapy: <i>Intrinsic Programs and Clinical Applications</i> <i>Jaime Imitola, Yang D. Teng, Vaclav Ourednik, Kook In Park,</i> <i>Richard L. Sidman, and Evan Y. Snyder</i> .....	371
	Appendix A: Neural Stem Cell Companies .....	421
	Appendix B: Stem Cells and Transplants .....	425
	Appendix C: Patents and Stem Cells .....	429
	Appendix D: Stem Cells and US Federal Guidelines .....	431
	<i>Index</i> .....	445



<http://www.springer.com/978-1-58829-481-4>

Neural Development and Stem Cells

Lipnick, S.; Vemuri, M.C.; Carpenter, M. (Eds.)

2006, 468 p. 84 illus., Hardcover

ISBN: 978-1-58829-481-4

A product of Humana Press