

# Stem Cell Research and Therapeutics

Yanhong Shi • Dennis O. Clegg  
Editors

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 Springer

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# Preface

This book is an updated reference for one of the most exciting field of biomedical researches- Stem Cell Research and its therapeutic applications. Stem cell research holds great promise for the treatment of many human diseases that currently lack effective therapies. The set of chapters in this book provide insights into both basic stem cell biology and clinical applications of stem cell-based cell replacement therapies for a variety of human diseases, including cardiovascular diseases, neurological disorders, and liver degeneration. It also covers novel technologies for the culture and differentiation of both human embryonic stem cells and adult tissue stem cells. This book summarizes our current state of knowledge in stem cell research and integrates basic stem cell biology with regenerative medicine in an overall context. It is an essential reference for students, postdoctoral fellows, academic and industrial scientists, and clinicians.

# Acknowledgements

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*The editors wish to dedicate this book to our  
mentors Ron Evans, Fred Gage, and,  
in memory of Daniel E. Koshland, Jr.*

# Contents

<b>Preface</b> .....	v
<b>Acknowledgements</b> .....	vii
<b>Contributors</b> .....	xi
<b>1 Retinal Pigment Epithelial Cells: Development <i>In Vivo</i> and Derivation from Human Embryonic Stem Cells <i>In Vitro</i> for Treatment of Age-Related Macular Degeneration</b> .....	1
Dennis O. Clegg, David Buchholz, Sherry Hikita, Teisha Rowland, Qirui Hu, and Lincoln V. Johnson	
<b>2 Progenitor Cell Transplantation for Retinal Disease</b> .....	25
Henry J. Klassen	
<b>3 Negative Regulation of Endogenous Stem Cells in Sensory Neuroepithelia: Implications for Neurotherapeutics</b> .....	45
Jason A. Hamilton, Crestina L. Beites, Kimberly K. Gokoffski, Piper L. W. Hollenbeck, Shimako Kawauchi, Rosaseyla Santos, Alexandre Bonnin, Hsiao-Huei Wu, Joon Kim, and Anne L. Calof	
<b>4 Epigenetic Control of Neural Stem Cell Self-Renewal and Specification</b> .....	69
GuoQiang Sun, Chunnian Zhao, and Yanhong Shi	
<b>5 Neural Stem Cells and Neurogenic Niche in the Adult Brain</b> .....	83
Xuekun Li, Basam Z. Barkho, and Xinyu Zhao	
<b>6 Progressing Neural Stem Cell Lines to the Clinic</b> .....	105
Kenneth Pollock and John D. Sinden	

<b>7 Human Neural Stem Cells for Biopharmaceutical Applications</b> .....	123
Lilian Hook, Norma Fulton, Gregor Russell, and Timothy Allsopp	
<b>8 The Analysis of MicroRNAs in Stem Cells</b> .....	141
Loyal A. Goff, Uma Lakshmipathy, and Ronald P. Hart	
<b>9 Optimized Growth of Human Embryonic Stem Cells</b> .....	169
Matthew A. Singer, Jacqui Johnson, Paul Bello, Robert Kovelman, and Michelle Greene	
<b>10 Potential of Stem Cells in Liver Regeneration</b> .....	181
Madhava Pai, Nataša Levičar, and Nagy Habib	
<b>11 Cell Transplantation Therapy for Myocardial Repair: Current Status and Future Challenges</b> .....	193
Wangde Dai and Robert A. Kloner	
<b>12 Surgical Stem Cell Therapy for the Treatment of Heart Failure</b> .....	213
Federico Benetti, Luis Geffner, Daniel Brusich, Agustin Fronzutti, Roberto Paganini, Juan Paganini, and Amit Patel	
<b>13 Use of Combinatorial Screening to Discover Protocols That Effectively Direct the Differentiation of Stem Cells</b> .....	227
Yen Choo	
<b>14 Adult Stem Cell Therapies for Tissue Regeneration: Ex Vivo Expansion in an Automated System</b> .....	251
Kristin L. Goltry, Douglas M. Smith, James E. Dennis, Jon A. Rowley, and Ronnda L. Bartel	
<b>15 The Hair Follicle Stem Cell as the Paradigm Multipotent Adult Stem Cell</b> .....	275
Robert M. Hoffman	
<b>Index</b> .....	289

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