

# Contents

|   |    |
|---|----|
| MADRY, Henning, KOHN, Dieter, and CUCCHIARINI, Magali: Genetic Modification of Human Mesenchymal Stem Cells for Regenerative Approaches in Orthopedic Surgery ..... | 7  |
| XU, Maojia, and BARRY, Frank: Cellular Strategies in Osteoarthritis: Therapy and Pathogenesis .....   | 15 |
| SCHREPFER, Sonja, and DEUSE, Tobias: The Allogenicity of Stem Cells and their Immunobiological Hurdle for Clinical Application .....                                | 25 |
| BÖHM, Michael, KASAKOW, Andrej, WERNER, Christian, and LAUFS, Ulrich: Vascular Regeneration and Repair in Cardiovascular High-Risk Patients .....                   | 33 |
| HASENFUSS, Gerd: Myocardial Regeneration: News from Bench and Bedside .....   | 39 |
| FLEISCHMANN, Bernd K.: Regeneration of the Heart .....  | 45 |
| GOEDEL, Alexander: Modeling Human Genetics in Induced Pluripotent Stem Cells (iPCs) for Cardiac Disease .....   | 51 |
| KÄSMANN-KELLNER, Barbara, and SEITZ, Berthold: Stem Cells in Ophthalmology with an Emphasis on Aniridia / PAX6 Syndrome with Limbal Stem Cell Insufficiency .....   | 55 |
| GRAF, Norbert: Cord Blood Stem Cells – A Dream for Future Medicine .....  | 71 |
| MELLER, Daniel: Corneal Epithelial Stem Cells: Clinical Relevance and Novel Therapeutic Concepts for Reconstruction of the Ocular Surface (Abstract) .....          | 77 |