Record Nr. UNINA9910438014703321 Cell-based therapies in stroke / / Jukka Jolkkonen, Piotr Walczak, **Titolo** editors Pubbl/distr/stampa Vienna;; New York,: Springer, c2013 **ISBN** 1-299-33629-9 3-7091-1175-7 [1st ed. 2013.] Edizione Descrizione fisica 1 online resource (203 p.) Altri autori (Persone) JolkkonenJukka WalczakPiotr Disciplina 616.8106 Soggetti Cerebrovascular disease - Treatment Stem cells - Therapeutic use Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Includes index. Preclinical Optimization of Cell Therapies: Cell Therapy and Structural Nota di contenuto Plasticity Following Cerebral Ischemia.- Delivery Routes for Cell Therapy in Stroke -- Different Sources of Stem Cells for Transplantation Therapy in Stroke -- Efficacy of Transplant and Endogenous Precursor and Stem Cell Interventions on Stroke Recovery -- Translational Imaging Techniques to Study Cell Therapy: Cell Labeling Methods for Non-Invasive MR Imaging of Stem Cells --Strategies for Enhanced, MRI-guided Targeting of Stem Cells to Stroke Lesions -- Image-guided Injection and Non-invasive Monitoring of Tissue Regeneration in the Stroke-damaged Brain -- Tracking of Autologous VSOP-Labelled Mesenchymal Stem Cells in the Sheep Brain Using 3T MRI -- Neural Stem Cell Mapping With High Resolution Rapid Scanning X-ray Fluorescence Imaging -- In Vivo Biodistribution Studies and Cell Tracking in Stroke Using SPECT Imaging -- Early Phase Clinical Studies: Clinical Trials -- Intravenous Cell Therapies for Stroke --Intra-arterial Cell Therapy in Stroke Patients -- Intraventricular Route of Cell Transplantation for Stroke-Related Diseases. Sommario/riassunto Stroke remains one of the main causes of death and disability

> worldwide. Effective therapy for stroke recovery remains an unmet need. Much hope and promises are placed on cell-based therapies. The

aim of this book is to provide focused yet comprehensive reviews on the current state of cell-based approaches in the treatment of stroke. The topics covered include experimental data on functional outcome after intravascular and intracerebral delivery of cells in stroke animals, followed by translational chapters which will rely heavily on the use of different imaging modalities in the tracking of cells. The last and most challenging part will describe the early phase of clinical studies, providing guidelines for future research and clinical applications. Clearly and concisely written, this text will be a useful resource for neurologists, radiologists, and neuroscientists interested in cell transplantation as a therapeutic strategy for stroke patients.