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Titolo	Cell Therapy for Brain Injury // edited by David C. Hess
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Descrizione fisica	1 online resource (371 p.)
Disciplina	570 571.6 612.8 617.48
Soggetti	Stem cells Neurosciences Nervous system - Surgery Stem Cells Neurosurgery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Introduction to Cell Therapy in Brain Injury -- Cell Based Therapeutics in Stroke: An Industry Perspective -- Autologous Mesenchymal Stem Cell Therapy in Patients with Stroke -- Treatment of Autologous Bone Marrow Mononuclear Cells for Acute and Subacute Stroke: Cell-Therapy for Acute/Subacute Stroke -- Clinical Development of MultiStem® for Treatment of Injuries and Diseases of the Central Nervous System -- Intra-Arterial Approaches to Stem Cell Therapy for Ischemic Stroke -- Neural Stem Cells in Stroke: Intracerebral Approaches -- The CTX Human Neural Stem Cell Line and the PISCES Stroke Trial -- Induced Pluripotent Stem Cells as a Cell-based Therapeutic in Stroke -- Induced Pluripotent Stem Cell Derived Neural Cell Types In Treatment of Stroke -- Preconditioning and Cell-based Therapeutics -- Tracking of Administered Progenitor Cells in Brain Injury and Stroke by Magnetic Resonance Imaging -- Biomaterials Application in Stem Cell Therapies for Stroke -- A Stem Cell Derived Cell-Free Therapy for Stroke: Moving

Conditioned Medium into Clinical Trial -- Pathophysiology of Traumatic Brain Injury: Rationale and Role for Cellular Therapies -- Stem Cell Therapy for Neonatal Hypoxic-Ischemic Brain Injury -- Cell-Based Therapies in Neonatal Stroke -- Issues in Clinical Trial Design in Stem Cell Trials after Stroke.

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Sommario/riassunto

This is a review of state-of-the-art cell therapy in the treatment of stroke, traumatic brain injuries and neonatal stroke and hypoxia-ischemia using a variety of cells ranging from bone marrow derived stem cells and mesenchymal stem cells to induced pluripotent stem cells derived neural progenitors. This invaluable book covers this niche topic in depth from basic stem cell biology and principles of cell therapy through proposed mechanisms of action of cell therapy in stroke, pre-clinical data in stroke models, ongoing clinical trials, imaging and tracking of cells with MRI, neural stem cells in stroke, approaches using conditioned medium, and the "big pharma" perspective of cell therapy. Each of eighteen chapters has been contributed by a well-known leader in each field, thus providing a wealth of international perspective and expertise. Cell Therapy for Brain Injury's breadth makes it essential reading for neuroscientists, stem cell biologists, researchers or clinical trialists at pharmaceutical or biotechnology companies. It also serves as a thorough introduction for graduate students or post-doctoral fellows who hope to work in these fields.

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