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Titolo	Applications of stem cells and derived exosomes in neurodegenerative disorders / / edited by Sadaf Jahan, Arif Jamal Siddiqui
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ISBN	981-9938-48-1
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Chapter 1. History, origin and types of neurological disorders -- Chapter 2. Mechanistic approach involved in the progression of Neurodegenerative disorders -- Chapter 3. Isolation, characterization and differentiation of stem cells -- Chapter 4. Role of Stem cells as a protective agent against neurological complications -- Chapter 5. Mesenchymal stem cells and their application against neurodegenerative disorders -- Chapter 6. iPSCs and their role in amelioration of neurodegenerative disorders -- Chapter 7. Isolation, characterization and detailed history of exosomes derived from stem cells and their epigenetic biology -- Chapter 8. Stem cells vs exosomes: promising therapeutic approach and biomarkers agent against neurodegenerative disorders -- Chapter 9. Role of stem cells and derived exosomes as a novel therapeutic agent against neuroinflammation and stroke -- Chapter 10. Role of stem cells and derived exosomes as a novel therapeutic agent against Alzheimer’s and Parkinson's disease -- Chapter 11. Role of stem cells and derived exosomes and associated signalling molecules involved in neuroprotection -- Chapter 12. Exosome as nanoparticles against neurodegenerative disorders.
Sommario/riassunto	This book explores the therapeutic approaches of stem cells and stem cell-derived exosomes against neurodegenerative disorders (NDDs).

The initial chapters introduce different neurodegenerative diseases and discuss the mechanistic aspects of their progression. The subsequent chapters cover strategies for the isolation, characterization, and differentiation of stem cells. In turn, the book reviews the protective role of stem cells against neurological disorders and examines regenerative approaches to treat neurological diseases using mesenchymal stem cells. The book also presents induced pluripotent stem cell (iPSC) technology for cellular therapy, drug screening, and in-vitro modeling of neurodegenerative diseases. Lastly, the book discusses the role of stem cells and derived exosomes as a novel therapeutic agent against Alzheimer's and Parkinson's disease and in associated signaling molecules involved in neuroprotection. This book is an invaluable source for researchers working towards understanding the potential of stem cell therapy in neurodegenerative disorders.