1. Record Nr. UNINA9910254528703321 Non-Neuronal Mechanisms of Brain Damage and Repair After Stroke / / Titolo edited by Jun Chen, John H. Zhang, Xiaoming Hu Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-32337-7 Edizione [1st ed. 2016.] 1 online resource (XIII, 408 p. 49 illus., 44 illus. in color.) Descrizione fisica Springer Series in Translational Stroke Research, , 2363-958X Collana Disciplina 616.81 Soggetti Neurosciences Neurology Neurology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Part 1. Microvascular integrity in stroke -- 1. Structural alterations to the endothelial tight junction complex during stroke -- 2. Role of pericytes in neurovascular unite and stroke -- 3. Glial support of blood-brain barrier integrity: Molecular targets for novel therapeutic strategies in stroke -- 4. Barrier mechanism in neonatal stroke -- 5. Angiogenesis: a realistic therapy for ischemic stroke -- Part 2. Glial cells in stroke -- 6. Astrocytes as a target for ischemic stroke -- 7. Microglia: a double-sided sword in stroke -- 8. Crosstalk between cerebral endothelium and oligodendrocyte after stroke -- Part 3. Peripheral immune cells in stroke -- 9. The peripheral immune response to stroke -- 10. The Role of spleen-derived immune cells in ischemic brain injury -- 11. Regulatory T cells in ischemic brain injury -- 12. B cells in stroke and preconditioning-induced protection against stroke -- 13. Mast cell as an early responder in ischemic brain injury --14. Roles of neutrophils in stroke -- 15. The function of cytokines in ischemic stroke -- Part 4. White matter injury and repair in stroke --16. Ischemic injury to white matter: an age-dependent process -- 17. Neurovascular repair after stroke -- 18. The role of non-neuronal Nrf2 pathway in ischemic stroke: damage control and potential tissue repair -- 19. Stem cell therapy for ischemic stroke.

This book provides a comprehensive overview of the latest research in

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the role of non-neuronal cells - astrocytes, oligodendrocytes, endothelial cells, pericytes, microglia, and other immune cells in ischemic brain injury and long-term recovery. In these cases, neurodegeneration and brain repair are controlled in a sophisticated system, incorporating interactions between different cell types and cellular systems. Also explored are the therapeutic strategies that target non-neuronal responses after stroke and their translational potentials.