Record Nr. UNINA9910350348703321 Neuroglia in Neurodegenerative Diseases / / edited by Alexei **Titolo** Verkhratsky, Margaret S. Ho, Robert Zorec, Vladimir Parpura Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 **ISBN** 981-13-9913-1 Edizione [1st ed. 2019.] 1 online resource (x, 405 pages): illustrations Descrizione fisica Collana Advances in Experimental Medicine and Biology, , 0065-2598; ; 1175 Disciplina 616.8047 Soggetti Neurosciences Neurology Molecular biology Neurology Molecular Medicine Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction to neuroglia: history, definition, development and main functions -- Evolution of astroglia -- Physiology of astroglia --Glicoryne system: glial cells as secretory cells of the CNS -- Physiology of oligodendroglia and NG-2 glia -- Physiology of microglia -- General pathophysiology of neuroglia -- Neuroglia in ageing -- In vivo imaging of neuroglia in neurodegenerative diseases -- Astroglia in leukodystrophies -- Astrocytes in ALS -- Astroglia in Alzheimer's disease -- Oligodendrogia in Alzheimer's disease -- Microglia in AD --Neuroglia in Parkinson's disease -- Neuroglia in Huntington disease --Neuroglia as a therapeutic target -- Stem cell derived neuroglia: new tool for research and treatment of neurodegenerative diseases. Sommario/riassunto This book provides a comprehensive overview of the role of neuroglia in neurodegenerative diseases. Neuroglia are the most abundant cells in the nervous system and consist of several distinct cell types, such as astrocytes, oligodendrocytes, and microglia. Accumulating evidence suggests that neuroglia participate in the neurodegenerative process, and as such are essential players in a variety of diseases, including Alzheimer's, Parkinson's, and Huntington's. Intended for researchers

and students, the book presents recent advances concerning the

biology of neuroglia as well as their interaction with neurons during disease progression. In addition, to highlight the function of neuroglia in different types of neurodegenerative disease, it also discusses their mechanisms and effects on protecting or damaging neurons.