Record Nr. UNINA9910298340803321 Microglia in Health and Disease / / edited by Marie-Ève Tremblay, **Titolo** Amanda Sierra Pubbl/distr/stampa New York, NY:,: Springer New York:,: Imprint: Springer,, 2014 **ISBN** 1-4939-1429-4 Edizione [1st ed. 2014.] Descrizione fisica 1 online resource (490 p.) Disciplina 573.8 610 612.8 616079 Soggetti Neurosciences Neurobiology **Immunology** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index at the end of each Nota di bibliografia chapters. Nota di contenuto Introduction -- Historical Context -- Microglial Physiology -- Lessons from in vivo Imaging -- Roles in Immune Responses --Neuroprotection Versus Neurotoxicity -- Developmental Neuronal Elimination -- Developmental Angiogenesis, Myelination and Astrogliogenesis -- Developing and Mature Synapses -- Adult Neurogenesis, Learning and Memory -- Neuropathic Pain -- Drug Addiction -- Aging -- Neurodevelopmental and Neuropsychiatric Disorders -- Human Immunodeficiency Virus -- Multiple Sclerosis --Ischemia and Stroke -- Neurodegenerative Diseases -- Spinal Cord and Brain Trauma. Sommario/riassunto These past few years have witnessed a revolution in our understanding of microglia, especially since their roles in the healthy central nervous system (CNS) have started to unravel. These cells were shown to actively maintain health, in concert with neurons and other types of CNS cells, providing further insight into their involvement with diseases. Edited by two pioneers in the field, Marie-Ève Tremblay and

Amanda Sierra, Microglia in health and disease aims to share with the

broader scientific community some of the recent discoveries in microglia research, from a broad perspective, with a collection of 19 chapters from 52 specialists working in 11 countries across 5 continents. To set microglia on the stage, the book begins by explaining briefly what they are, what they do in the healthy and diseased CNS, and how they can be studied. The first section describes in more details their physiological roles in the maturation, function, and plasticity of the CNS, across development, adolescence, adulthood, neuropathic pain, addiction, and aging. The second section focuses on their implication in pathological conditions impairing the quality of life: neurodevelopmental and neuropsychiatric disorders, AIDS, and multiple sclerosis; and in leading causes of death: ischemia and stroke, neurodegenerative diseases, as well as trauma and injury.