1. Record Nr. UNINA9910688342303321 Autore Daniel Zeller Titolo Plasticity in multiple sclerosis: from molecular to system level, from adaptation to maladaptation // edited by Daniel Zeller and Maria Assunta Rocca Pubbl/distr/stampa Frontiers Media SA, 2016 [Lausanne, Switzerland]:,: Frontiers Media SA,, [2016] ©2016 **ISBN** 9782889197644 1 online resource (72 pages): illustrations; digital file(s) Descrizione fisica Frontiers Research Topics Collana 616.8 Disciplina Soggetti Neuroplasticity Multiple sclerosis - Neuroplasticity Multiple sclerosis - Research Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia "Published in: Frontiers in Neurology" -- front cover. Note generali Nota di bibliografia Includes bibliographical references. Nota di contenuto Editorial: Plasticity in multiple sclerosis: from molecular to system level, from adaptation to maladaptation -- Microvesicles: what is the role in multiple sclerosis -- The neurophysiologist perspective into MS plasticity -- Brain plasticity effects of neuromodulation against multiple sclerosis fatigue -- The role of fMRI to assess plasticity of the motor system in MS -- Neuroplasticity and motor rehabilitation in multiple sclerosis -- Functional plasticity of the visual system in multiple sclerosis -- Network collapse and cognitive impairment in multiple sclerosis -- Case-based fMRI analysis after cognitive rehabilitation in MS: a novel approach -- Cognitive reserve as a useful concept for early intervention research in multiple sclerosis -- Measuring gray matter and white matter damage in MS: why this is not enough -- Clinical implications of neuroplasticity: the role of rehabilitation in multiple sclerosis Plasticity occurs at multiple levels in multiple sclerosis (MS), from cells Sommario/riassunto to synapses, from myelin to axons, from individual regions to large-

scale brain networks. A growing body of evidence supports the notion

that the course of MS and its extremely heterogeneous clinical

manifestations might be the net result of disease burden and compensatory capacity. As a consequence, identifying what can be considered as "positive" plasticity and what, on the contrary, is a maladaptive reorganization is a very attractive goal which might help to develop therapeutic strategies able to promote the individual adaptive capacity. The aim of this Research Topic forum is to provide a state of the art update on the diversity of available data in humans with MS, derived from the many studies performed using different research tools, including immunological, neurophysiological and neuroimaging techniques which have addressed neuroplasticity at multiple system level, from motor, to visual, and cognitive. Synopsis of recent advances of plasticity research in MS aims to broaden the view across systems and techniques and to stimulate further studies on this emerging topic.