Michal Schwartz is a Professor of Neuroimmunology at The Weizmann Institute of Science in Rehovot, Israel. She is married and has four children. Her work focuses on the role of innate and adaptive immunity in central nervous system (CNS) plasticity in health and disease. Schwartz was the first to claim that the integrity of the immune system is pivotal for neural tissue survival and repair. She pioneered the concept of “protective autoimmunity” and its role in CNS maintenance, cognitive and mental activity, and cell renewal from adult stem cells in the healthy and the diseased CNS. Her work has led to a paradigm shift in the perception of central issues in immunology, neurobiology, and adult neural stem cells by suggesting, against the common wisdom, that immune surveillance by autoreactive T cells maintain, fight off and correct dysfunction of the CNS. Her publications include numerous peer-reviewed articles and invited reviews, many of which appear in the highest ranked journals (e.g., Nature Medicine, Nature Neuroscience, Nature Cell Biology, PNAS, Science, JCI, PlosMedicine). Schwartz has received a number of prestigious awards for her research, including the 2002 Friedenwald Award from ARVO (Association for Research in Vision and Ophthalmology), for her outstanding contribution to vision research and ophthalmology. She was appointed by the American Spinal Cord Injury Association to the Distinguished G. Heiner Sell Memorial Lectureship in 2002 for outstanding achievement in the field of spinal cord injury. She was one of the recipients of the NARSAD (The Mental Health Research Association) Distinguished Investigative Award (2007), she received an award as a distinguished investigator from the European Commission (2008), lately a honorary doctorate from Ben-Gurion university (2009), and Shaked Brain research award from Bar-Ilan University for her pioneering work (2009). Professor Schwartz has been invited as keynote lecturer in numerous international meetings., and is an elected member of the International and European societies for Neuroimmunology. She has developed a cell-based therapy, based on the therapeutic activity of immune cells, for partial recovery after severe spinal cord injury. Her novel view of the cross-talk between the
immune and the nervous systems is a basis for development of therapeutic vaccinations and for searching for biological markers for chronic neurodegenerative disorders (amyotrophic lateral sclerosis (ALS), Parkinson’s disease, Alzheimer’s disease, glaucoma, and others) as well as for mental disorders (Depression and PTSD).