Schwartz is a Professor of Neuroimmunology, incumbent of The Maurice and Ilse Katz Professorial Chair in Neuroimmunology, at the Weizmann Institute of Science, Rehovot, Israel.

Schwartz received her BSc degree with a major in chemistry, cum laude, from the Hebrew University, Jerusalem, Israel, and her PhD in Immunology from the Weizmann Institute. She performed postdoctoral research in Neuroscience at the University of Michigan, Ann Arbor, studying nerve regeneration.

Schwartz's research is focused on the role of innate and adaptive immunity in central nervous system (CNS) plasticity in health and disease, and on developing methodologies to manipulate the immune system for the benefit of the CNS under acute injuries, chronic neurodegenerative conditions, mental dysfunction, and brain aging. Schwartz pioneere**d** the pivotal role of the systemic immune system in healthy brain function and repair. Schwartz basically redefined the relationships between the brain and the immune system in health and disease. She was the pioneer suggesting that both monocytes and T cells are needed for repair of injured CNS tissues (Nature Medicine, 1998; Nature Medicine. 1999; PLOS Medicine, 2009). She coined the concept of "protective autoimmunity", as a physiological response that protects the brain. Schwartz further demonstrated that T cells are needed for healthy brain functional plasticity (Nature Neuroscience, 2006). Subsequently, she identified the brain's choroid plexus epithelium, which forms the blood-CSF-barrier, as an active physiological immunological interface between the brain and the circulation, and as an entry gate for leukocytes, needed for brain homeostasis and repair.as the "permissive" immunological interface between the brain and the circulation (Immunity, 2013; Brain 2013). This led to her over the last 2 years to discover that brain aging and neurodegenerative diseases are associated with dysfunction of this interface (Science, 2014; J. Neuroscience, 2015; Nature communication, 2015), and that unleashing the immune system can combat Alzheimer's disease (Nature Communications, 2015; Nature Medicine, 2016).

Schwartz's work is highly cited (**H index 97;** Google Scholar). She 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 twice Advanced European Research Commission award (2008, 2017), a honorary doctorate from Ben-Gurion University (2009), and a Brain research award for her pioneering work (2009). In 2015 she received the Blumberg Prize for excellence in medical science. In 2016 her book: "NEUROIMMUNITY: How Brain Science Will Revolutionize the Way We Live and Age", by MICHAL SCHWARTZ with Anat London, Yale University Press (https://proseawards.com/winners/), received Accolade from the annual PROSE Awards. Recently, Schwartz was profiled by Britannica Book of the year 2016, covering selected individuals and events that impacted the course of human history. Schwartz is the elected incoming president of the International Society of for Neuroimmunology (2016-2018). Lately, she received the 2017 Rappaport Prize for Excellence in the Field of Biomedical Research (awarded to an established Israeli biomedical researcher). She has mentored numerous graduated students some of them are already holding leadership in neuroimmunology.