

**Project:** Initial Training Network for Neurological Disorders orchestrated by cytokines (NeuroKine)

**Research Topic:** Understanding the regulatory mechanism at the choroid plexus, a suggested gate for infiltrating monocyte-derived macrophages, in a transgenic model of Alzheimer's disease



During the last two decades, work from Michal Schwartz's laboratory has supported the "protective autoimmunity", a phenomenon suggested by her lab that states that circulating immune cells are pivotal for normal brain function and also for CNS injury repair, as recruitment of monocyte-derived macrophages under controlled conditions was proven to be essential and beneficial for repair. Her work has also implicated the choroid plexus as being an important gate for the infiltrated cells.

This research project aims to better elucidate the recruitment process of circulating immune cells, how such a process is controlled, and further essential factors that play part in the neuromodulation. The ultimate goal, therefore, is to be able to offer possible therapeutic targets in AD and neuroinflammatory diseases.



**Principle Investigator:** Prof. Michal Schwartz

**Research Fellow:** Alaa Sharif

Department of Neurobiology  
**Weizmann Institute of Science**  
Rehovot 76100, Israel