

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

Research Topic: Nature of the inflammatory response in Multiple Sclerosis lesions



Multiple sclerosis (MS) is an autoimmune inflammatory CNS disease. It is well established that active demyelination and neurodegeneration in the MS brain is associated with inflammation; however, the exact nature of the inflammatory response is currently largely undefined. Experimental autoimmune encephalomyelitis (EAE) can be induced by adoptive transfer of autoreactive CD4+ T cells, whereas the MS demyelinating lesions predominantly consist of parenchymal CD8+ T cells, suggesting major differences between MS patients and EAE.

Therefore, we aim to investigate the nature of the inflammatory response in the brain and spinal cord lesions of Multiple Sclerosis patients, focusing on leukocyte proliferation, on transcription factors that regulate T-cell polarization, on different T-cell activation antigens and on cytokines, and compare it with other inflammatory CNS diseases.



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