



Project B01 - Immune regulation at the CNS barriers and in the CNS: role of immune cell trafficking

Subcluster: Immune cell trafficking

Project Summary: The most defining hallmark of MS pathology is the infiltration of pathogenic immune cells into the CNS. In this project we will analyze the molecular mechanisms, which T cells employ in their migration over the blood-brain barriers, to better understand T-cell trafficking and therapeutic interventions aiming to modulate leukocyte sequestration. In doing so, we will focus on Th17-defining molecule MCAM and the less-investigated adhesion molecule VLA-2 (tethering, rolling, adhesion, and transmigration) during static and in-vivo-flow conditions. Supporting these methods, we will employ imaging techniques such as image stream (confocal flow) and intravital microscopy (spinning-disk confocal system).

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