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Stefan Bittner is senior physician at the Department of Neurology of the University Hospital in Mainz. He is a professor for neuroimmunology and got his prior training at the University of Würzburg and University of Münster. The main research interests of his group for experimental neuroimmunology are ion channel-mediated regulation of immune cell and CNS functions and live-imaging of neuroinflammatory processes in the CNS tissue.

S4-L1 ‘Neuro-immune crosstalk in the inflamed CNS: Lessons learned from in vivo imaging.’

Two-photon laser scanning microscopy for the first time made it possible to visualize immune responses in the CNS parenchyma. From migration of autoreactive T cells across the blood-brain barrier, to invasion into the tissue, interaction with resident glial cells and neuronal damage, the whole cascade of autoimmune inflammation is accessible to novel in vivo imaging approaches. Recent findings as well as conceptual approaches and methodological pitfalls will be discussed.
