Neurosciences research has a long tradition in Freiburg and includes studies on:
- nervous system development
- mechanisms of synaptic transmission
- the role of GABAergic interneurons in network dynamics
- voltage-activated calcium channels
- network activity and neuropathological changes accompanying epileptic disorders (Clinical Neurocenter)
- neuroimmunology in central nervous system (CNS) inflammation and neurodegeneration
- myeloid cells in CNS diseases
- network organization and dynamics (Bernstein Center Freiburg BCF, Cluster of Excellence BrainLinks - BrainTools BL-BT and Bernstein Focus: Neurotechnology Freiburg/Tübingen BFNT)
- brain-machine interfacing BMI

We participate in the Collaborative Research Centers and Training Groups such as "Functional specificity by coupling and modification of proteins" SFB 746.

To find information on the principal investigators in this area please click here
gyrus transfected with AAV encoding Parvalbumin-expressing basket cells in the hippocampal dentate gyrus.