Neuro-oncology

There are over 120 types of tumors of the brain and the central nervous system. The most common types are gliomas (astrocytoma, oligodendroglioma, ependymoma) and meningiomas. Almost half of all gliomas are represented by glioblastomas (GBM; WHO IV) which are associated with a very poor prognosis for the respective patients.

Our studies focus on identifying novel prognostic and predictive biomarkers for different types of brain tumors, in particular GBM. To this end, we employ a multilateral approach consisting of immunohistochemical analysis (tissue microarrays) and DNA analysis (single nucleotide polymorphisms, DNA methylation) on paraffin-embedded brain tumor tissues. Additionally, tumor biomarkers in frozen tissues and blood sera will be analysed as part of our prospective registry study NoCCa (Nordstadt Cerebral Cancer study).

These studies contribute to a better understanding of the pathophysiology of brain tumors and foster the development of improved therapeutic strategies against this disease.

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Selected publications


