

## Imaging and single single-cell mass cytometry in pediatric high grade glioma

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Pediatric Glioblastoma (pGBM) and Diffuse Intrinsic Pontine Glioma (DIPG) are a highly aggressive group of heterogeneous malignancies of the central nervous system characterized by inter- and intra-tumor heterogeneity.

To dissect this heterogeneity, we applied single-cell mass cytometry to a panel of 8 primary cell lines derived from pGBM and DIPG patients, highlighting important differences in the expression of the considered antigens.

To further expand our knowledge on pGBM/DIPG tumor microenvironment, we also applied the single-cell mass cytometry to tumor tissue slides from patients.

The performed multiplexed high-dimensional analysis of single-cell proteomics demonstrated a significant inter and intra-tumoral heterogeneity, both *in vitro* on the cells and *in vivo* on patient tissue samples.