LGG - Lower Grade Glioma

Subtype	Biology & Expression	Genomic Alterations	Clinical Features
IDH-mutant, 1p/19q-codeleted	Oligodendroglioma-like expression profile; neuronal and synaptic gene enrichment	**IDH1/2 mutations** + **1p/19q codeletion**; TERT promoter mutations; CIC, FUBP1 mutations	Best prognosis; classic oligodendroglioma histology; highly chemo- and radiosensitive
IDH-mutant, non-codeleted	Astrocytoma-like; proneural signature; TP53 and ATRX alterations	**IDH1/2 mutations**; no 1p/19q codeletion; frequent **TP53 and ATRX mutations**	Intermediate prognosis; classic astrocytoma histology; responds well to temozolomide and RT
IDH-wildtype	Mesenchymal/glioblastoma-like; EGFR pathway activation; low neuronal differentiation	**EGFR amplification**, PTEN loss, TERT promoter mutations; resembles GBM genetically	Worst prognosis; often progresses to GBM; aggressive clinical course; resistant to standard therapy