

# Harnessing the ID in glioma

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Gliomas are the most common form of brain tumor. They are highly aggressive and effective treatments are not currently available. The tumors contain glioma initiating cells (GICs), a population that is highly similar to neural stem cells. GICs drive tumor progression and must stay in a particular extracellular niche in order to maintain their cancer-promoting, stem cell-like characteristics.

In this issue of the [Journal of Clinical Investigation](#), researchers led by Antonio Iavarone at Columbia University report on the role of ID proteins in glioma. ID proteins allow stem cells to stay anchored in a particular extracellular niche.

Using a mouse model of glioma, Iavarone and colleagues found that ID proteins were also responsible for retaining GICs in the extracellular niche that allowed them to maintain their cancer promoting properties. In human glioma patients, the expression of a group of Id-regulated genes was correlated with clinical outcomes.

These results suggest that ID proteins are important regulators of glioma and may be suitable therapeutic targets.

**More information:** Mesenchymal high-grade glioma is maintained by the ID-RAP1 axis, *Journal of Clinical Investigation*, 2012.

Provided by Journal of Clinical Investigation

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