

[Review](#) [Sci Transl Med.](#) 2026 Jul 29;18(860):eaeg9138. doi: 10.1126/scitranslmed.aeg9138.

Epub 2026 Jul 29.

The neuroscience of childhood brain cancers

[Michelle Monje](#) ^{1 2}

PMID: 42525784 DOI: [10.1126/scitranslmed.aeg9138](https://doi.org/10.1126/scitranslmed.aeg9138)

Abstract

Nervous system activity drives both normal neurodevelopment and childhood brain cancers through paracrine and synaptic signaling. In childhood gliomas, cancer cells integrate structurally and electrically into neural networks, and neuron-cancer interactions are strongly growth-promoting. Understanding the neuroscience mechanisms regulating childhood brain cancers opens a previously unexplored avenue for much-needed therapeutic interventions.

[PubMed Disclaimer](#)