

# A new target for neuroblastoma

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Neuroblastoma, a cancer that starts in nerve tissue outside of the brain, is the third most common cancer in children and accounts for about 15 percent of pediatric cancer-related deaths.

Sirtuins (SIRT6), a family of proteins with roles in metabolism, aging and genomic stability, have been linked to various cancers, but their role in neuroblastoma has not been explored.

Dai Chung, MD, and colleagues found that a non-specific SIRT6 inhibitor reduced the growth rate of cultured neuroblastoma cells and induced the formation of neurite-like structures consistent with [neuronal differentiation](#) (maturation). Using a genetic strategy to knock down specific SIRT6, they discovered that SIRT6 promotes neuroblastoma cell growth and represses differentiation. SIRT6 expression was reduced in differentiated human neuroblastoma samples and in cultured neuroblastoma cells that were induced to differentiate using retinoic acid.

The findings, reported in the February issue of *Anticancer Research*, highlight the oncogenic properties of SIRT6 in neuroblastoma and suggest SIRT6 as a target for new therapeutics for [neuroblastoma](#).

**More information:** Inhibition of Sirtuin 6 Induces Neuroblastoma Differentiation. *Anticancer Res* February 2018 38 (2) 647-654. [ar.iarjournals.org/content/38/2/647.abstract](http://ar.iarjournals.org/content/38/2/647.abstract)

Provided by Vanderbilt University

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