GACAT3

Evidence is emerging that long noncoding RNAs (lncRNAs) play vital roles in tumorigenesis. LncRNA gastric cancer-associated transcript 3 (GACAT3) is reported to participate in the development of breast cancer, colorectal cancer, nonsmall cell lung cancer, and gastric cancer. However, whether it is implicated in glioma has not been elucidated. Pan et al. from the Department of Neurosurgery, Zhuji People's Hospital of Zhejiang Province, Zhuji Affiliated Hospital of Wenzhou Medical University, China. found that GACAT3 level was aberrantly elevated in glioma tissues and cell lines. Higher GACAT3 expression predicted lower survival rate. Knockdown of GACAT3 suppressed the proliferation, colony formation, migration, and invasion but promoting apoptosis in glioma cells. Next, we determined that GACAT3 contributes to glioma progression through inhibiting microRNA (miR)-3127-5p. Subsequently, ELAVL1 was identified as a direct target of miR-3127-5p by bioinformatics analysis and luciferase reporter assay. Moreover, we confirmed that GACAT3 promoted ELAVL1 expression through sponging miR-3127-5p, leading to glioma progression. Taken together, our study elucidated that GACAT3/miR-3127-5p/ELAVL1 signaling regulates glioma development and might be a promising therapeutic target [1].

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Pan B, Zhao M, Xu L. Long noncoding RNA gastric cancer-associated transcript 3 plays oncogenic roles in glioma through sponging miR-3127-5p. J Cell Physiol. 2018 Oct 14. doi: 10.1002/jcp.27542. [Epub ahead of print] PubMed PMID: 30317610.