Long non-coding RNA in meningioma

The deepgoing role of Long non-coding RNA (lncRNAs) on meningioma is still unclear.

Xing et al., investigated the roles of lncRNA LINC00460 in meningioma tissue and uncover its molecular mechanism. Results revealed that LINC00460 expression level was significantly up-regulated in meningioma tissues and malignant meningioma cell lines (IOMM-Lee, CH157-MN). Mechanically, loss-of-function assays showed that LINC00460 knockdown significantly suppressed the proliferation ability, increased the apoptosis and decreased the proteins (MMP-2, MMP-9, ZEB1) expression. Bioinformatics tools predicted that miR 539 both targeted with the 3'-UTR of LINC00460 and MMP-9 mRNA, which was confirmed by luciferase reporter assay and western blot analysis.

The study reveals that LINC00460 promotes MMP-9 expression through targeting miR-539, acting as an oncogenic RNA in the meningioma malignancy and accelerating the proliferation and metastasis of meningioma [1].

1)
Xing H, Wang S, Li Q, Ma Y, Sun P. Long non-coding RNA LINC00460 targets miR-539/MMP-9 to promote meningioma progression and metastasis. Biomed Pharmacother. 2018 Jun 12;105:677-682. doi: 10.1016/j.biopha.2018.06.005. [Epub ahead of print] PubMed PMID: 29906745.