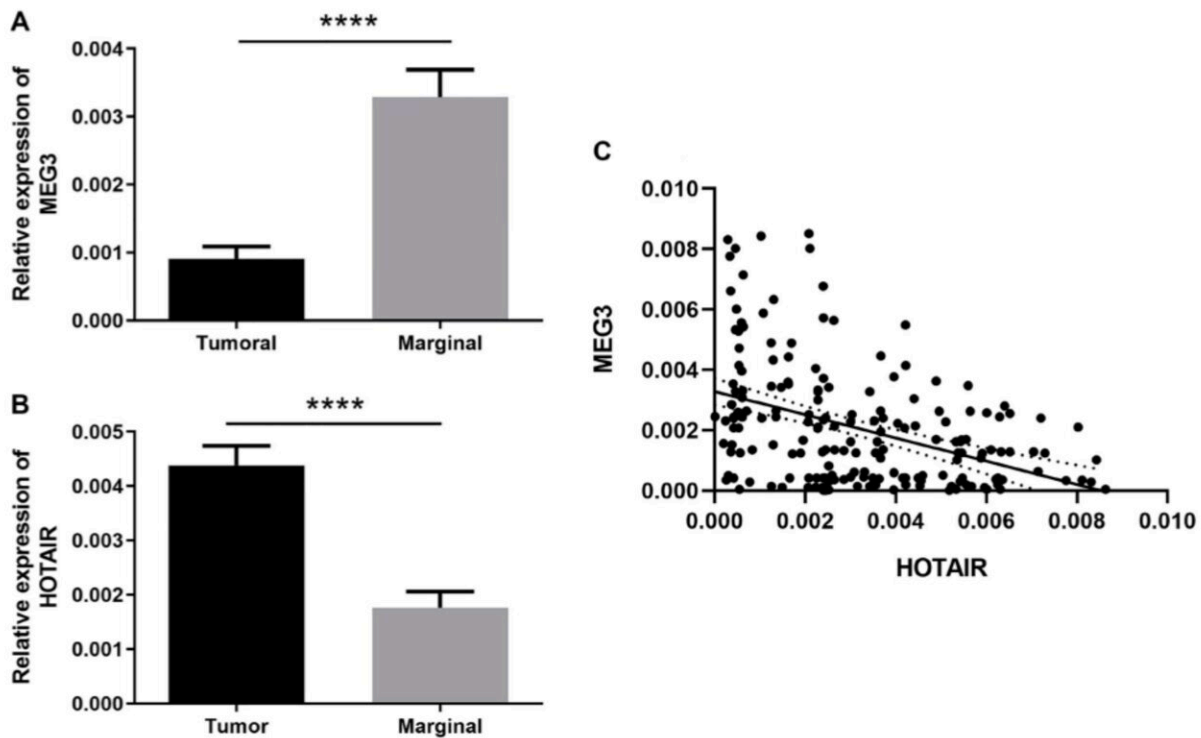


# Expression of HOTAIR and MEG3 are negatively associated with *H. pylori* positive status in gastric cancer patients

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Differences in the expression level of lncRNAs in tumors as compared to the marginal non-tumor tissues at mRNA level represented by bar plot. Credit: 2022 Amini et al. *Genes & Cancer* (2022). DOI: 10.18632/genesandcancer.219

A new research paper was published in *Genes & Cancer* on February 10,

2022, entitled, "Expression of HOTAIR and MEG3 are negatively associated with H. pylori positive status in gastric cancer patients."

Chronic infection with *Helicobacter pylori* is one of the main causes of gastric [cancer](#) (GC). Besides, lncRNAs play crucial roles in cancer pathobiology including GC.

In this study, researchers Farnaz Amini, Mohammad Khalaj-Kondori, Amin Moqadami, and Ali Rajabi from the University of Tabriz aimed to investigate the expression of MEG3 and HOTAIR in gastric cancer tissues and evaluate their association with the H. pylori status.

"Here we assessed the expression of lncRNAs MEG3 and HOTAIR in GC and analyzed their association with the H. pylori status and other clinicopathological characteristics of the patients. Moreover, their biomarker potency was evaluated by the Receiver operating characteristic (ROC) curve analysis," state the researchers.

One hundred samples were obtained. Total RNA was extracted, cDNA was synthesized and expression of MEG3 and HOTAIR was assessed using qRT-PCR. Association of their expression with H. pylori status and other clinicopathological characteristics were investigated. Furthermore, sensitivity and specificity of the MEG3 and HOTAIR expression levels for discrimination of the tumor and non-tumor samples were evaluated by Receiver operating characteristic (ROC) curve analysis.

"We observed upregulation of HOTAIR but downregulation of MEG3 in tumor compared to the non-tumor tissues. We also found a significant negative association between their expression levels and H. pylori positive status."

However, only the expression level of HOTAIR was significantly

associated with the size and stage of the tumor (P

"The expression of MEG3 and HOTAIR was negatively associated with the H. pylori positive status. MEG3 was downregulated but HOTAIR was upregulated in the GC tissues. The expression of HOTAIR was associated with the size and stage of tumor. Furthermore, MEG3 and HOTAIR [expression levels](#) might be considered as potential diagnostic biomarkers for GC," the researchers conclude.

**More information:** Farnaz Amini et al, Expression of HOTAIR and MEG3 are negatively associated with H. pylori positive status in gastric cancer patients, *Genes & Cancer* (2022). [DOI: 10.18632/genesandcancer.219](#)

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